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Milz, Vera Esther

A PSYCHOLINGUISTIC DESCRIPTION OF THE DEVELOPMENT OF WRITING IN SELECTED FIRST GRADE STUDENTS

The University of Arizona

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A PSYCHOLINGUISTIC DESCRIPTION OF THE DEVELOPMENT OF
WRITING IN SELECTED FIRST GRADE STUDENTS

by

Vera Esther Milz

A Dissertation Submitted to the Faculty of the
DEPARTMENT OF ELEMENTARY EDUCATION
In Partial Fulfillment of the Requirements
For the Degree of
DOCTOR OF EDUCATION
In the Graduate College
THE UNIVERSITY OF ARIZONA

1983

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As members of the Final Examination Committee, we certify that we have read
the dissertation prepared by Vera Esther Milz
entitled A psycholinguistic description of the development of writing in
selected first grade children.

and recommend that it be accepted as fulfilling the dissertation requirement
for the Degree of Doctor of Education.

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Final approval and acceptance of this dissertation is contingent upon the
candidate's submission of the final copy of the dissertation to the Graduate
College.

I hereby certify that I have read this dissertation prepared under my
direction and recommend that it be accepted as fulfilling the dissertation
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Metta M. Goodman  
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SIGNED: Vera Esther Milz
DEDICATION

For Shawn Stroh

"It is better to make something than to do nothing. It is better to be something than to be nothing. It is better to know than not to know. It is better to be than not to be"

Highwater, 1977, p. 54
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I wish to express my sincere appreciation to the children of Room 14. The writing of six children is reported within the pages of this dissertation. However, it was a whole class of children that made it possible for me to have access to the way children learn to write. Many children, beginning with the 28 in the 1976-77 school year, and continuing in the following years have written before my eyes, and responded to my "Why did you do that?" They truly have been marvelous teachers!

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ABSTRACT

The purpose of this study is to examine the development of writing in first grade children. It provides information about the changes that take place in the children's writing over an eight-month period. The writings of the entire classroom were collected; from these six children's writings were chosen for cross-sectional analysis. Two children from this group were further selected for in-depth case studies. Interviews, parent surveys, and observations were employed to monitor the children's writing development. The data are categorized according to (1) the child's general background, (2) the child as a writer, (3) the child's use of conventions of the writing and spelling systems, and (4) an overview of the child's construction of meaning.

The subjects already had a rich, though varied, background of experience with writing when they entered first grade. Many invitations to write were given during the year, which resulted in three major types of writing: journals, notes, and stories.

The children were eager to communicate in writing. They grew and developed during the year in a way similar to the way they once learned to speak, learning how to write through their interactions and experiences with others. They became aware of the needs of an audience, could determine the type of writing appropriate to a particular setting, used syntactic features that other writers use, and wrote to fulfill personal needs.
As the children wrote, they discovered that certain conventions, such as spelling and punctuation, are used by writers to allow their message to be understood. The rate of development varied according to how critical these conventions were to the ability to communicate.

The study demonstrated that children who have a message to communicate construct meaning as their first priority. As they use writing, they gain knowledge of the writing system and change occurs in their understanding of the syntactic, semantic and orthographic systems, allowing them to create more complex meanings for their readers.
CONVENTIONS USED

1. Capital letters will indicate a child's invented spelling

   Tagg used the word APLZ (apples) during the first week of school.

2. ( ) will enclose a conventionalized representation of the child's writing.

   SMTIMSIKNTLTIM

   (Sometimes I can tell time.)

3. Underlining will set off conventionally spelled words when they appear in context.

   Tagg had originally spelled when WN but later changed it to WINE.

4. // will indicate terminal units or T-units.

   /At the dentist's office I GT MIEKLE/

5. Capital and lowercase letters will be used with invented spelling in those sections discussing the child's choice of letter form.

   I Ho you Haf a Dog Lik this N

   (I hope you have a dog like this one)

6. When a child used a surname in the text, these were deleted from the figures and lines were substituted. For example, Jane Doe was changed to Jane D __, indicating her surname had three letters in the original text.
CHAPTER 1

CHILDREN AND WRITING

Introduction to the Study

Do you know
I can write
in cursive
I don't remember
when I learned

This excerpt from a letter was written by Laurel during one of her many attempts to write in cursive without adult assistance. Laurel and 13 other children wanted to write, and they wrote prolifically throughout their first grade experience. Clegg (1972, p. 27) states, "Just as we learn to talk by talking, we learn to write by writing." As these 13 children wrote in journals, sent notes and letters to others and wrote stories, they encountered writing in all its complexity and they learned to control it. However, learning to write was not a happening which occurred only in this school classroom, but instead it was part of a continuing development of literacy beginning with the first contacts with writing long before the children entered school and continuing throughout their entire lives.

It is well documented that children of a very young age come into contact with writing and begin to make use of it. Clay (1977, p. 334) states, "Somewhere between three and five years most children make marks on paper purposefully." In this same article, she describes Penny, a child of 4 years 11 months, who could copy letter by letter,
maintain directionality, space words in writing a message, as well as know that the note needed to be placed in an envelope and addressed before mailing.

Harste and Burke (1980, p. 174-175) describe Alison, at 4 years 3 months, as having grasped the meaning relationship between picture, text and her world; directionality (both top-down and left-to-right); the function of print in the setting; and the organization of a story structure. Her writing did not have a phonological representational match with her message as she re-orchestrated the same set of letters from her name to produce a written story.

Read (1975) documents the spelling patterns of young writers who arrived at their analysis of English phonology at least a year before school. He found that parents did not expect or encourage their children to spell, but instead just supplied materials, answered questions, and accepted the child's spelling as a creative production.

Torrey (1969, p. 550-556) studied an early reader named John, a black five year old from a low socioeconomic family, and in so doing found that he enjoyed writing, and spent much time printing words and numbers. His written productions were in sentences and conveyed direct messages. John used capital letters whenever possible though Torrey found he was capable of printing lowercase. He rarely misspelled words, but occasionally did ask for assistance in spelling some words, apparently knowing the spelling was different from what he was able to generate. Torrey concluded that reading is learned, not taught directly by formalized programs or materials. Perhaps if Torrey had focused on writing, a similar conclusion would have been stated because
John's writing was certainly developing at the same time without direct instruction.

Durkin (1966, p. 57) was another researcher looking at young readers before they entered school in Oakland, California and New York City. These children came from a variety of ethnic and socioeconomic backgrounds, and all except one entered first grade already able to print. The one child who could not do so had been eager to learn, but had been stopped by a mother afraid of the child learning an incorrect way. However, most parents that Durkin interviewed were supportive in answering the child's questions. They saw a development from scribbling to copying letters of the alphabet to the writing of their own names as well as others in their environment. The children were also described by their parents as having "interest binges" of making calendars, writing addresses and other sustained projects.

Even as early as the 1930s, Hildreth (1936) looked at the early writing attempts of pre-school children. She found children were eager to write their names as part of test data that she was collecting. Thus, name writing was encouraged as a routine part of the examinations, and Hildreth interviewed parents for information about how the children developed writing. Parents reported their children's growing interest in imitating adult writing, and how they had answered the child's questions regarding formation of letters or spelling of their names. The children often spent hours writing, and few were apparently embarrassed by or even recognized errors in their writing. Name writing resulted from their personal interest, not from parental teaching. Hildreth concluded that the ability to write one's name
improved steadily from 3 to 6 without any direct instruction in writing.

These early writers learned to write so naturally it was hardly noticed by some of their parents and the researchers. However, in the school setting writing has not always been encouraged. Graves (1978) noted that schools emphasize that the skills of penmanship, vocabulary, spelling and usage must be taught preceding composition, and in fact so much time is devoted to these drills that there often is little time left for writing. Many educators still think handwriting, spelling, vocabulary and usage are synonymous with writing. Fortunately, thanks to the efforts of researchers like Graves, research and a change in attitude toward encouraging children to write are beginning to occur. Studies of children actually writing in school settings (King and Rental, 1981; Staton, 1982; Graves, 1981) are being reported. Articles (Chomsky, 1975; Giacobbe, 1981; Milz, 1981) are being disseminated which will help teachers translate these understandings into practice.

In light of the emerging new research on writing providing evidence that children are developing writing even before school begins, the notion that schools "teach" writing needs to be re-examined. Although there are growing numbers of studies in writing development, there have been none where the teacher and researcher are the same. This allows for greater insights not only into writing development but also into what impact the environments of home and school may have on writing development. This study will examine the development of writing in a group of first grade children. It will focus on the
changes that take place in children's writing during their year in first grade.

Information from the study will provide researchers, teachers and parents with greater knowledge about the development of writing in a school setting as well as at home. This information could improve the quality of guidance provided by teachers and parents in the encouragement of writing by children.

Statement of the Problem

The purpose of this study is to describe and analyze the writing development of six first grade children. To achieve this purpose, first-draft writing samples were collected over a period of eight months. Answers to the following questions will be the focus of this study:

1. What aspects of a child's background have influence on writing development?
2. What changes take place in the child as a writer over the period of one school year?
3. How does the child's use of conventions of the writing system including spelling develop over the period of one school year?
4. How does the child construct meaning through writing over the period of one school year?

The answers to these questions are provided through the description of the writing development of the subjects as found in their writing samples, parent surveys, and teacher observation. This
study is not a hypothesis-testing study, but rather a hypothesis-generating study, and conclusions take the form of hypotheses.

**Significance of the Study**

This study adds to the growing base of information about the development of writing in school-age children. As researchers, teachers, and parents begin to understand how writing really develops—rather than how adults believe it should be taught, this information will help make writing more accessible to all children. With greater knowledge about how the writing process occurs in children and how it develops in the school environment, teachers will be able to develop curriculum which encourages and supports writing development. At the same time teachers will be able to share information with parents so that they may be a part of an educational team which supports young writers.

**Assumptions**

This study is based on the following assumptions:

1. Writing is one aspect of language, and the writer uses a similar process with a similar set of language rules as do speakers, listeners, and readers in order to communicate. As one of the four language processes, writing can be studied with research techniques similar to those used in the study of oral language.

2. Errors are important to the understanding of the writing process as they indicate how children are organizing and applying their knowledge. This study assumes that errors are
not random, but instead reveal how children are reaching out and organizing new information in relation to the foundation they already have.

3. Although in the literature, creative and functional writing are separated, this study will assume all writing has elements of creativity, as well as purpose or function.

4. With appropriate preparation, parents will do their best to recall past experiences with their children accurately and impartially.

**Limitations**

The following are major limitations of the study:

1. The researcher is the classroom teacher. To keep this from interfering with the objectivity of the study, all decisions concerning analyses were reviewed by a second observer.

2. Lack of control exists regarding prior instruction in kindergarten as well as instructional intervention by persons outside the classroom. Information about these elements was collected retrospectively and is described to gain insights about these influences on the development of writing in the subjects.

**Definitions**

The following definitions will apply in this study:

**Writing:** Language, in graphic form, which is the code vehicle through which a message is transmitted (Goodman, 1972, p. 144).
Writing and Spelling Conventions: Rules, traditions or customs followed as the accepted form in written expression. These include spacing, linearity and directionality principles; word boundaries; capital and lowercase letters; spelling; and punctuation (Hanna, Hodges and Hanna, 1971, p. 28).

Piece of Writing: The product written by the child during one writing session. A piece could consist of several pages, or be part of one page, perhaps defined by the date and a line at the close to separate it from the next entry.

Handwriting: The graphic symbols (graphemes) used in the writing system; e.g. the alphabet letters of English writing (Hodges and Rudorf, 1972, p. 230).

Error: Observed writing which differs from the reader's expectations. This concept is based on the definition of a miscue in reading: "an observed oral response in reading which differs from the listener's expected response" (Y. Goodman, 1971, p. 10).

Natural Language Development: A process in which the learner is an active participant in developing oral or written language. Development occurs as the child interacts with others and participates in meaningful and functional activities. Adults may arrange activities or the environment to promote learning; however, their role is as a resource person and interactor—not a lecturer providing direct structured or sequential instruction.
CHAPTER 2

REVIEW OF THE LITERATURE

Introduction

Children want to write! Put a child together with writing implements, and a purpose for writing, and the result could be a sign such as the one Bissex (1980, p. 23) found posted on her five-year-old son's bedroom door. Paul had written:

DO NAT KM. IN. ANE. MORE. JST. LETL KES

(Do not come in anymore. Just little kids.)

Many children, just like Paul, are involved with and using writing within meaningful and functional settings. Until recently though, for most children these spontaneous messages were not recognized as valuable, and the beginnings of writing were associated with skills of handwriting, spelling and vocabulary taught in the first grade classroom. The early discoveries children make about writing do not necessarily interact with the model of writing presented in many schools. As Clay (1982, p. 68) observed a teacher working with her class, she noted:

The teacher seemed to assume that children would need help to put their ideas into written language. A perfect copy was expected, so the children would learn that it was wrong to make mistakes, but one cannot make discoveries without making errors. Consequently, the children's theory of writing would be in part that the correct form lay somewhere outside them, and that the initiative would not be theirs.
When this study commenced in the mid-1970s, a search of the related literature revealed very little writing research had been done. Most of the references to writing were in the area of educational methodology advocated by various language arts experts, and little agreement existed in their various points of view. Graves (1980, p. 914), in a similar review to this one, came to the same conclusions:

Only 156 studies on writing in the elementary grades, or an average of six annually, have been done in the United States in the last twenty-five years. Writing research was in such low esteem from 1955-1972 that eighty-four percent of all studies was done by dissertation alone. . . . Eighty-one percent of all dissertation research in this period involved experimental designs seeking to find "good methods" in the teaching of writing. . . . From 1955-1972, sixty-eight percent of all research was concerned with what the teacher was doing in the classroom. . . . Only twelve percent of the studies were concerned with a look at what children did when they wrote.

During the past decade a dramatic change has occurred in the area of children's writing. Public interest has grown, in part due to articles in the press and popular magazines. The publicity from "Why Johnny Can't Write" (Newsweek, Dec. 8, 1975) brought the notion of a "writing crisis" in American education, as well as a new emphasis on writing in schools. Funds for writing research have been allocated by government agencies and private foundations.

Most recently, interest in children as writers has begun to increase. Naturalistic observational techniques borrowed from oral language studies are being applied to the study of written language. The focus of these research studies is not writing instruction, but what the children themselves learn about writing in the home and school setting.
In order to examine the historical perspectives and the recent changes in the study of children's writing, the following areas will be reviewed: (1) writing instruction; (2) writing as a language process; and (3) research methodology.

**Writing Instruction**

Literature on children's writing instruction is characterized by many points of view espoused by various language arts experts, with little agreement among the different points of view.

Instructional approaches differ, depending on the point of view of the particular language arts authority or authors of instructional materials. McCracken and McCracken (1972, p. 105) recommend; "Children must have drill in writing every day. As they learn phonics, they learn to write and as they learn to write, they learn phonics. Writing is practicing phonics or phonics drill." The authors advocate that children be taught to listen to speech and learn to recognize phonemes by writing or the encoding process.

Groff (1980, p. 71) believes that "written composition skills must be taught, as such, because children's writing is a separate linguistic matter from their oral language. He lists various responsibilities for the teacher if children are to write effectively. Teachers must motivate or stimulate the child's writing, and help the child with the physical act of putting words down on paper through programs in handwriting and spelling. Teachers should evaluate critically and constructively by offering suggestions as to how aspects
of the writing can be improved. Last, they need to find an audience for the child's writing.

Both of the above approaches stress teacher responsibility and teacher input for the child's writing. A contrasting position is advocated by Burrows, Jackson and Saunders (1964, p. 1-2), as they believe that writing comes from within the individual and contributes to the child's development. They state, "That his product is often crude and clumsy does not matter. It is important that the child, out of himself and working in his own way, produces something of which he can approve." Hennings and Grant (1973, p. 146) are in agreement when they note, "Creative ideas rarely blossom in an environment in which the teacher assumes the critical role and corrects papers." Allen (1976, p. 178) adds, "Too much emphasis on correct form without allowing for the personal, dynamic ideas of children can make a wasteland of instruction."

In 1964, Squire (1964, p. 12) notes that perhaps an inconsistent point of view in the development of writing programs had contributed to chaotic conditions. There still is little agreement in the area of methodology, even today, although the main controversy seems to center around the role of the learner and the role of the teacher—whether writing is produced by an active participant or if it is instilled from the teacher's instruction. Two studies (Emig, 1971; Graves, 1973) are concerned with the process of writing, and have a bearing on these issues.

Emig (1971) directly observed eight twelfth graders who were asked to compose aloud, as well as share their remembrances of learning
to write. She notes large differences between school-sponsored writing and writing that is self-motivated. School-sponsored writing is mainly directed to the teacher, stimulated by literature or abstract topics, often started with little planning, not revised voluntarily and evaluated on the basis of mistakes of form rather than meaning. Writing which is self-initiated involves a wider range of topics, is shared with peers and is often contemplated and revised. These discoveries about the value of self-initiated writing lead Emig to note that teachers need to give students more time in school settings for pre-writing activities, as well as time to reformulate and reconceptualize their ideas. Students need many invitations to write using different types of writing, such as diaries and journals, in an effort to discover the writing they can do best. Evaluation needs to be positive rather than just the persistent pointing out of mechanical errors by a teacher. Control of assignment and correction should be shifted from the model of teacher domination seen in most schools to student control through self-selection of topic and self-editing.

Graves (1973) observed in four classrooms where seven-year-olds were learning to write. He used case study techniques to look specifically at eight children over a five-month period. The classrooms from which the children were selected were chosen to determine possible instructional influences on the children's development of writing. Thus, the description of the classroom environment and instructional practices became a major part of the study. Two classrooms were formal (characterized by teacher-led activities taught in specific periods), and two were informal
characterized by children working in learning centers on individual projects with teachers providing assistance through interviews and small group direction). Some of Graves' key findings are that children write more, overall, in informal environments, but in both formal and informal classrooms they write longer if allowed to choose their own topics. Students with the least teacher-assigned writing produce the most writing. Boys select different topics than girls. Girls write more than boys in either formal or informal environments, but boys produce more writing in informal than formal environments. Children do not need constant teacher motivation or supervision in order to produce writing.

In an article based on his dissertation, Graves (1975, p. 241) urges that further research be conducted before determining classroom practices: "Direct contact and extended observation of the children themselves are necessary to reach conclusions relating to developmental variables involving the behaviors of children. To date the need for developmental studies related to children's writing has been virtually ignored."

As more educators and researchers focus on the child as a writer, the inconsistency in teaching practices found in the area of writing instruction may be eliminated. Evidence of new information on the development of writing in young children being applied to instructional practice can be seen in the recent language arts textbook, *The Beginnings of Writing* (Temple, Nathan and Burris, 1982). Its use of children's writing samples helps teachers and pre-service students to evaluate their practices in light of what children actually
do—not what adults hope they will produce. Teachers may then become aware of the writing proficiency their students may control and be able to expand and enrich this knowledge as they build a writing curriculum.

**Writing As a Language Process**

The field of psycholinguistics has yielded insights as to how children develop language. These studies have examined how children develop oral language and now are beginning to look at written language. Evidence has been provided that children learn language without direct instruction as they interact with family members and other persons in their environment (Bloom, 1970; Halliday, 1975b; Torrey, 1969; Bissex, 1980). Children often enter school with a great deal more language facility than even their teachers realize they possess.

As babies begin to develop oral language, they begin by acting like speakers of English. Halliday (1980, p. 8) describes how he and his son of eighteen months took inventory of the things they had observed together on a walk: "ba" (buses), "tiku" (stick) and so on. The baby does not use exactly-formed words or sentences, but these early attempts are often remarkably similar to adult forms. Slobin (1971) says, "One cannot help but be impressed with the child's great propensity to generalize, to analogize, to look for regularities—in short to seek and create order in his language." Read (1971), seeking to understand the original spellings produced by two pre-schoolers, found that other children, too, create a spelling system using phonetic relationships that they have not been taught by parents or teachers.
The children start by utilizing the letter names of the alphabet, but soon find that these letter-names only provide partial help. Children then proceed to draw phonetic relationships based on various properties of nasality, syllabicity, backness, height and affrication to create needed spellings. Read's studies demonstrate that children apply similar strategies when learning to write to those used when developing spoken language. They act like writers and construct spellings based on their developing knowledge of English. As they gain new knowledge through contact with standard spellings, reading and schooling, they modify their spellings and often adopt standard spellings (Read, 1975). Clay (1975, p. 15) explains this process, "The first thing learnt will be gross approximations which later become refined: weird letter forms, invented words, make-believe sentences. Such creative efforts suggest that the child is reaching out towards the principles of written language and any instruction should encourage him to continue to do this."

Oral and written language is developed within a social context that children share with significant persons in their lives. Halliday (1980, p. 8) notes that significant others play an important part in the child's life as "they know what he means ... what he understands. They are creating the system along with him." Bloom (1970) demonstrates how the content of a message may be inferred from the context. For example, when Kathryn said "Mommy sock," and held up her mother's sock, the meaning was quite different from when she used the same words while her mother was putting a sock on Kathryn. As a child, Kathryn did not use the possessive ('s) or a verb (put) that would have
made the meaning of "Mommy sock" more explicit, but in both instances her mother was able to understand and respond appropriately. Bissex (1980) describes her son Paul's first attempt to deliver a written message. As she ignored him when reading her book, he printed and delivered this message: RUDF (Are you deaf?). Of course, she put down her book. She shared the context Paul's message was written in, and understood it. The ambiguous or child-like forms become understandable as interactions take place in a shared context where, as Halliday (p. 8) says, "They [the adults] are creating the system along with him [the child]."

Halliday (1973, p. 10) further notes the importance of function in the development of oral language. He states, "The child knows what language is because he knows what language does. . . . Language is, for the child, a rich and adaptable instrument for the realization of his intentions; there is hardly any limit to what he can do with it." He further explains, "What the child does with language tends to determine its structure (1973, p. 27). Heath (1980) suggests a parallel phenomenon in written language based on her ethnographic studies during which she observed actual reading and writing practices in two communities.

As one of the four language processes, writing development can be aided through the use of what one has already learned about oral and written language. Bissex (1980, p. 17) notes how Paul's spelling of A PAN A TIM (upon a time) reflects his knowledge of oral language, or how it sounds to him, as he determined the segmentation. Misspellings, such as LIKT (liked), STAD (stayed), WA TID (waited) which are cited by
Read (1975, p. 66) can be viewed in the same way we view errors of noun (SHEEPS) and verb (BRINGED) inflections in young children's speech. In the first examples, the child is writing the sounds heard in oral language, not realizing that in writing they are regularly represented by ED, while the speech examples reflect generalizations which are not simply regularized in the English language. Both errors represent learning-in-progress as children did not model or imitate but used their linguistic resources to create words they wished to speak and write.

Using knowledge about language to learn language is a principle which occurs as children listen to the stories a teacher or parent reads to them. They learn how stories are organized and reflect this knowledge as they begin to write their own stories. Harste, Burke and Woodward (1981, p. 67) call this strategy "fine tuning language with language." They even note that many first graders often begin writing stories by using ones they already know rather than by creating new characters, settings and story sequences. This allows the child to explore the many aspects of form needed to convey a message through the new medium of writing. King and Rental (1981, p. 145) conclude that, "Learning to compose either orally or in writing is in all likelihood, predicated on what children understand, on what literary forms they control, and on what uses they may make of their linguistic resources."

Child language research indicates that the various aspects of language are learned simultaneously rather than additively. Any notion of age norms or distinct stages are negated in favor of learning while fulfilling a personal need and refining one's language through
experience. Bloom (1976, p. 1) argues: "the development of language advances on several fronts at the same time and it is necessary every now and then to reconsider that for the child, the three components of language form, language content and language use come together in the process of language learning." Clay (1975, p. 7) notes:

I doubt whether there is a fixed sequence of learning through which all children must pass . . . . Eventually as each convention is mastered the children acquire a common fund of concepts but the point of entry and the path of progress may be different for any two children. Chance experiences may produce new insights at any time which alter the entire learned pattern.

As learners reach out to explore new aspects of language, their errors provide significant insights as to how they are learning. Berko and Brown (1960, p. 520) refer to error in oral language:

If he says sheeps or I bringed, he says something he probably has not heard from others, and what he says is a projection of a general rule. Because English is not so simply regular, the child makes an error, and the error reveals his knowledge of regularities. Most of the time this knowledge will lead him to say what is correct, and so it is hard to be sure that he is not repeating what he has heard. But when he oversimplifies the language, the generalizing process is made evident.

Read (1980, p. 144) found that young writers frequently use the letter A to represent "short e," the vowel of bet and bed. They write red as RAD. He notes that they recognize the vowels of bait, bet and bat are similar in terms of sound and articulation. He concludes:

Their judgment is entirely reasonable; phonetically, those three sounds are closely related. Nor is there anything wrong with the assumption that we spell different sounds with the same letter . . . . All that is wrong is the assumption that the vowels that are spelled alike ought to be those which are similar in sound . . . . Eventually we must change the child's assumption about which vowels are spelled with the same letter, but not the assumption that some vowels are. To suggest that the child ignore his or her phonetic judgments would be a step backward.
The above discussion is only one of the many decisions children make about spellings. Read further notes that the children's knowledge is quite systematic and consistent as they develop spellings while they write messages.

Other authors stress the importance of errors as children grow as writers. McCaig (1972, p. 5) explains, "The first grader who makes a groping attempt to express conversation in his writing should be evaluated as a youngster exhibiting unusual growth, not one making too many mechanical errors." Clay (1975, p. 18) further states, "There will always be errors in word detail if the child is motivated to express his ideas, rather than stay within the confines of the vocabulary with which he is familiar and the skills he can control."

Child language research has presented the learner as an active participant, aware of writing as it is used in real-life situations, and proceeding to develop the forms necessary to convey a message to others.

Information about the development of the writing process is just beginning to emerge. More intensive studies of school-age writers, based on psycholinguistic understandings, are needed.

**Research Methodology**

Descriptive small sample research has contributed greatly to our knowledge of oral language development. Descriptive research, according to Best (1959, p. 102), "describes and interprets what is. It is concerned with conditions or relationships that prevail ... the
process of descriptive research goes beyond mere gathering of data. It involves an element of interpretation of the meaning or significance of what is described. A descriptive research design does not stop with recording the subject's language, but is concerned with what the child does and what else goes on in the context. Bloom and Lahey (1978, p. 29) explain, "The context in which language is used by the child and by others speaking to the child, is as important as what is actually said for understanding children's language behavior and making inferences about what children know. Yarrow (1960, p. 648) states that "descriptive research is concerned with the detailed study of the processes of change." Olson (1960, p. 374) defines longitudinal research as "taking samples of the development of activities of the same individual at successive stages." Bloom and Lahey (1978, p. 27) note that "in a longitudinal research design, the behaviors that are observed at different times can more confidently be interpreted in terms of developmental change."

The earliest research in the development of child language was a longitudinal study based on data collected by the use of parent diaries (Leopold, 1949). Many other researchers, including Weir (1962), Bloom (1970), and Halliday (1975b) conducted single-subject longitudinal studies. Brown (1973) focused on the longitudinal description of three subjects.

The accumulated findings from a number of single or small-number-of-subject studies begin to present a fuller picture of the processes being studied. While one child language study generates hypotheses, a series of studies builds a framework of evidence. Guba
(1978) uses the term "triangulation" to describe this accumulation of evidence. He concludes (p. 64) "When a series of bits of evidence all tend in some direction, that direction assumes far greater believability. As statistical means are more stable than single scores, so triangulated conclusions are more stable than any of the vantage points from which they were triangulated."

Educational research in the area of writing calls for investigation of developmental issues focusing on individual differences. Graves (1973, p. 222) states that "further studies are needed to investigate the developmental histories of different types of children in relation to writing." Calfee (1976, p. 64) believes the writer's individuality and developmental influences contributing to that individuality are important items to consider. He concludes, "longitudinal data, the record of months and years may be essential for accurate characterization of individuals." Braddock (1963, p. 32) notes that the "longitudinal study is especially appropriate for [the study of] written composition in which change usually seems to take place slowly." Yet Graves (1973, p. 222), in his dissertation research, wrote that developmental studies related to children's writing have been virtually ignored. Although longitudinal single subject studies have provided the largest part of the information used in oral language studies, it is only within the last ten years that this type of research is now being recognized for the critical insights and pertinent information it can provide about children and their writing.
Research in the development of writing includes some descriptive longitudinal studies. Graves (1973) reported a single case study of Michael as part of his dissertation research involving four classrooms. Bissex (1980) studied her son's development of writing along with reading over a six-year period from age five to age eleven. Baghban (1979) studied her daughter Giti's first encounters with writing from birth to 36 months. She demonstrated by knowing the context how seeming scribbles were actual beginnings of the writing process.

Teacher-researcher teams are studying writers in classroom settings. King and Rental (1981) studied two groups of children (grades 1 through 2, kindergarten through grade 1) to describe the transition that children make from oral to written texts, with emphasis on the use of cohesive devices and story structure elements. Graves (1981) studied two populations of children (grades 1 through 2, grades 3 through 4). Individual case studies are reported by various members of the research team on aspects of the writing process such as spelling, punctuation, and revision (Kamler, 1980; Rule, 1982; and Calkins, 1980b). Donnelly and Stevens (1980) report the writing strategies two girls used from first through third grade. Gerritz (1975) reported the spelling of vowel sounds that first graders used in her classroom. Sorenson and Kerstetter (1979) described the phonetic spellings of Wes, a kindergartener in an open-space K-1 classroom. Each of these studies contributes to the developing picture of the diversity with which the writing process can take place, as well as the realization that children bring much knowledge with them to the
classroom as they begin to write. Descriptive longitudinal research in classroom settings has increased since the beginning of this study and is slowly growing in respectability. It is being recognized for the critical insights and pertinent information it can provide. This present study will add to the growing, although still small, longitudinal data on first grade writing.

**Summary of the Literature Review**

The methodology or classroom practices used in the area of children's writing is subject to much interpretation. The major point of concern is if the teacher is responsible for the child learning how to write, or if the learner is at the heart of the writing process. Many language arts authorities show little awareness of the language factors involved in writing development. They do not focus on the facility the child brings to the classroom. Yet researchers, such as Read (1975, p. vi) admit to little knowledge of classroom practices, although they are providing insights by which children's writing can be researched. This longitudinal research conducted by a teacher researcher, aware of language development principles, will add much meaningful information about first grade children as they write in a classroom setting.
CHAPTER 3

STUDY DESIGN AND PROCEDURES

General Design

This is a descriptive longitudinal study of the development of writing in six first-grade children in a classroom where the writing experiences were spontaneous rather than teacher assigned. To achieve the purposes of the study, the writings of an entire classroom were collected over an eight-month period from September 8, 1976-May 1, 1977. The writings of six selected children were chosen for cross-sectional analysis. Two children from this group were selected for in-depth case studies. Interviews and observations were employed to monitor the children's development of writing.

Data from the children's writing, interviews, and observations are analyzed and described in response to the major questions of the study. Cross-sectional analysis of the relationship of developing components of the writing process among subjects is discussed. A description of beginning writing based on two in-depth case studies is presented.

Research Questions

The data of this descriptive, longitudinal study are organized for analysis in the following four categories: general background, the child as a writer, the child's use of conventions of the writing and
spelling systems, and an overview of the child's construction of meaning within written text.

Specific research questions are included within each category.

General Background
1. What influences the choices that children make as writers which are examined in the following questions?

The Child as a Writer
2. How much will self-motivated children write?
3. What types of writing are produced by first graders?
4. What functions does writing serve for young children?
5. Who is the audience in the classroom and home for the child's writing?
6. How does syntactic maturity in writing occur?

The Child's Use of Conventions of the Writing and Spelling Systems
7. How do children learn to use space on their paper in the following areas:
   a. Word boundaries.
   b. Linearity and directionality.
   c. Utilization of space.
   d. Letter size.
8. How do first graders use capital and lowercase letters as they write?
9. What hypotheses do children form about the orthographic system as they begin to spell?
10. What uses do children make of punctuation in their writing?

Overview of the Child's Construction of Meaning Within Written Text

11. What do first graders write about when encouraged to write daily?

12. What language cueing systems do children use to represent meaning?

The Classroom Setting

Community

The children who provided the writings for this study attended a public school, George P. Way Elementary, in Bloomfield Hills, Michigan. The area is a suburban residential community of 50,000 persons approximately 20 miles northwest of metropolitan Detroit. It is described as an upper-class, high-income section of the state (Detroit Free Press, July 31, 1977).

School

At the time of the study, the school district had approximately 8,100 students attending nine elementary, three junior highs, and two high schools as well as one special education center. The school that the children attended had 353 students with an average class size of 27. A heterogeneous first/second grade combination room was formed to maintain the class-size ratio. Two first grades and one second grade also existed at the school. The author of the study was the teacher of the first/second grade classroom.
Children

The class had sixteen first graders and twelve second graders in its membership. The children reflected diverse ethnic origins, varying abilities, multi-interests and experiences—typical of the differences found in any classroom. One child in the classroom was unable to speak English upon entry though he was proficient both in French and Arabic. One child had physical handicaps and several of the second graders were labeled learning-disabled.

Room Arrangements

The research was conducted in a classroom with all the traditional components of a modern American school: four walls, assorted desks and tables, various bookcases and storage areas, chalk and bulletin boards—along with a standard ABC chart stretched across the front of the room. Figure 3-1 was a floor plan of the classroom, although the arrangement was subject to change as materials were removed or new things were added to accommodate changes in the program (see Figure 3-1).

The classroom arrangement during the 1976-77 school year was designed to promote literacy, and print was made available for children to make use of it (Milz, 1981b). Some of the sources of print were:

1. Calendar: Several professionally-made calendars were hung in the room. One calendar had books and cards which could be changed monthly. The children could write on the cards and record special trips and happenings, birthdays, and days off,
Figure 3-1. Classroom arrangements, Room 14, Way Elementary School, 1976-77.
as well as secret messages on the back of the card, to be uncovered as the date was turned over.

2. **Chalkboard:** The date was recorded daily, along with relevant news items brought in by the teacher and class.

3. **Signs:** Various types of signs were hung in the room. A set of out-door traffic signs were taped to one wall. A toy town set allowed children to drive a toy car through imaginary streets.

4. **Bulletin Boards:** During the year the children wrote to various people. As answers were received, these letters were placed on a bulletin board for children to remove and read as they wished.

   One bulletin board was used to list all the class members' birthdays, along with names and pictures.

   Another board was used to advertise books for other children to read. These could be professional or child-authored books.

5. **Charts:** The students rode to school in buses which traveled five different routes. The children's names were listed on a chart to remind them which bus to take home.

   Children did various jobs in the classroom such as messenger, line leaders, or library helpers. A list of the jobs with changeable name cards was maintained.

   Reading to classmates after recess was encouraged on a sign-up basis so that students could have books chosen previously. A chart was maintained to keep this activity organized.
6. **Labels:** Supply cans, mailboxes, coat hooks, and file folders, all carried the children's names. In addition, labels noted simple directions, such as "Put lunch boxes here."

7. **Published Materials:** Magazines, 1500 trade books, assorted textbooks, and newspapers were found in the classroom to provide materials for children to read.

   All these materials were kept in the Reading Corner. They were organized in the following way:
   a. Magazines, such as *Ranger Rick*, were placed in binders and filed by the year.
   b. The trade books were kept in alphabetical order by title, except for books beginning with *A* and *The*. Examples of this are: *Amelia Bedelia* (Parish, 1963) goes in *A* while *A Tree is Nice* (Udry, 1956) is placed in *T*. *The Fox Went Out on a Chilly Night* (Spier, 1961) is placed in *F* whereas *Teach Us, Amelia Bedelia* (Parish, 1977) is placed in *T*.
   c. Multiple copies of textbooks, such as the *Sounds of Language* books (Martin, 1970c) were kept in a separate bookcase.
   d. The daily newspaper was placed on a table to be read, marked for interesting items, and clipped the next day.

The organization of these materials was maintained by the students in the class, with some assistance from the teacher. If the graphics of the various titles was hard to distinguish, a permanent marker was used to write the beginning letter in the upper left corner of the books, as well as to underline the
first letter in the title. The books are not alphabetized beyond the first letter of the title.

8. **Student-authored Books:** Shelves in the Writing Center held books written by the children in the class. Often children made duplicate copies which remained permanently in the classroom for future classes to read.

9. **Listening Center:** A tape recorder and record player with assorted books and matching tapes/records were available for student use. No headsets were used, so as children noticed others using these materials they could go over to try them themselves.

10. **Content-area Storage Places:** Shelves holding math manipulatives, science equipment, and projects-in-progress, allowed children to get needed materials and take them to a table or floor area to work, as well as to store them later to continue the project until completion.

   Math games and manipulatives had simple directions written on them for independent use by the children whenever possible.

   Science equipment was organized for use with thematic units. For example, a set of magnets, a box of items to use with them, as well as books detailing further information, were placed in a tray for small-group use. Leaf collections, seeds/plants, liquids/solids and cocoons were some of the objects used for observational science projects. The observations were usually recorded on student-written charts, or in the child's notebook.
Daily Schedule

This self-contained classroom had "a flow," as children worked on many projects yet moved independently from one thing to another (Milz, 1981b). At any time that the children were working independently, some were reading, others were writing, while still others were doing different activities. The time blocks were flexible and became less apparent during the year as children became more independent and were able to manage their time more productively. Some activities became fixed in time during the year, thus shaping a "typical day" in the classroom:

9:00 - 9:20: Children enter school as buses arrive. Many of the children begin the day by getting their notebooks and making an entry. Heidi records the date on the chalkboard while Chip changes the calendar. Caroline checks her mailbox and puts a note in the teacher's box. Matthew and Scott check the bottles which contained snow and ice on the previous day. Rebecca reads a couplet she has written, makes a change on the paper and places it in the publishing box. Alice writes a letter to Bill Martin to tell him how much she likes his books. Travis reads a book to Jean. Scott A. reads The Bus Ride (Scott Foresman Reading Systems, 1971).

9:20 - 9:30: The teacher takes attendance and lunch count.

9:30 - 9:50: Sharing time begins. Jenny shares a story she is writing while other children read from their journals or favorite books. Some children bring objects from home.
9:50 - 10:00: Activities for the day are reviewed. New materials are introduced and directions given.

10:00 - 10:30: Children work on varied projects. Books in various stages are being worked on. Children are reading. Art activities are available. Jorgen is working on a poster with a porcupine picture that he cut from a magazine, pasted on the top. He prints words underneath—sometimes going to other resources to get information about words he needs, sometimes writing independently. Stories are appearing in journals as well as in booklet form. Vikki places her story in the publishing box so that it will be put in a blank book after being typed by a volunteer parent. Brian listens to a tape recording by Bill Martin which accompanies the Instant Reader book series (1970b).

10:30 - 10:50: Morning recess. The children gather clean snow for snow ice cream. They leave the pans by the door until they are ready to use them.

10:50 - 11:00: Storytime. Rebecca reads The Snowy Day (Keats, 1962) to her classmates.

11:00 - 12:00: Children continue with morning projects. They usually tend to be categorized in the language arts area. Mrs. J. comes in to help with making snow ice cream. The teacher works with small groups or individual children assisting them with reading or writing, as well as making suggestions to those who lack self-direction. She discusses a rough draft with Ted and calls Tagg over for the first of a series of reading
conferences with various children. Another parent, Mrs. H., comes to the classroom to listen to the children read.

12:00 - 1:00: Lunch and recess.

1:00 - 1:15: Storytime. The teacher reads from Mr. Popper's Penguins (Atwater, 1938).

1:15 - 2:30: Math or science activities are introduced to the group. Some children continue morning projects as listed above while others use the new materials.

2:30 - 3:00: The children leave for music or gym classes.

3:00 - 3:30: The day ends with an evaluation session. Several children read just-completed books. Storytime, using Mr. Popper's Penguins, ends the day. (Books with chapters, such as James and the Giant Peach, Dahl, 1961; Ramona the Brave, Cleary, 1975; or Here Comes the Bus, Haywood, 1963, were used for this story period, and would be used during the day if a few minutes became available in the schedule.)

3:30 - 3:40: Children get ready for dismissal and leave the room as buses are called.

While children were expected to read and write daily as well as participate in activities introduced to the class, they were allowed to choose the times they wished to use, and participate in planning their personal schedule. If the classroom noise reached a distractable level, the group came together to work out any problems as well as enjoy a story together. At times, the entire class was called together
to view and discuss movies or filmstrips as well as other appropriate materials.

A librarian was present at all times during school hours and the children could go to the Media Center to get books of their choice whenever they wished. Often they would search out books by a favorite author, or get further information on current units such as dinosaur books for a science unit.

Methodology

Language development was the primary concern of the classroom. Inasmuch as language develops through use, the primary goal of the teacher was to provide opportunities for this to happen. Children were reading, writing, discussing and listening at the appropriate times. The classroom was noisy, as children participated in various activities.

Reading activities were both teacher-directed and student-initiated. The school district provides a selection of basal textbook materials for teachers to choose for their students, as well as supports the use of children's literature for the reading program. Reading experiences in the classroom were both direct and incidental. Individual conferences were scheduled, during which the teacher could listen to the reader, read along with the child, or suggest new reading material. Students read silently to themselves during the day, and shared books orally with classmates and adults in the classroom. They also read incidentally as they checked the date on the calendar, put
their name in the helper's chart, shared an entry in their personal journal or read a message on the empty towel holder.

Writing was an on-going daily activity in the classroom. There were no "writing periods" with specific teacher-assigned activities. Instead, children spontaneously wrote as they needed to write in order to fulfill their own particular purposes.

To support writing, materials were gathered and placed in a Writing Center—a large, movable storage unit with drawers and spaces, as well as shelves on the sides. The following supplies are available whenever children need them:

1. **Paper**: Unlined newsprint, as well as narrow or wider-spaced lined paper, was available in various drawers. Colored construction paper could be stapled with regular paper to make blank booklets if the child wished.

2. **Cardboard**: Index cards, oaktag, posterboard and cut-up cardboard from shipping boxes was useful to the children.

3. **Memos and Stationery**: Notepaper and memos were dittoed for use in the mailbox area.

4. **Implements**: Pencils, crayons, and thin markers were available for writing. Staplers, scotch tape and scissors were used to construct booklets.

5. **Rubber Stamps and Plastic Letters**: Using alphabet stamps or plastic letters helped children to easily spell out words and sentences. A date stamp recorded the month, day and year.
In addition, an old typewriter became available for use in the classroom. It proved to be a valuable tool to those children who found writing by hand a laborious process.

Chalk was provided for children to write messages on the blackboard.

An area was set up to support the production of child-authored books. Volunteer parents provided assistance through the giving of materials and times. Donated vinyl wallpaper, cotton fabric scraps with drymount, or contact paper was adhered to cardboard for book covers by parent helpers. As children completed a rough draft, they were allowed to choose the blank book cover that they wanted their manuscript to be placed in. Inserts for book pages as well as typing of manuscripts was done at home by volunteer parents and was brought to the book-making area.

Four specific writing activities were introduced to the classroom: (1) note writing, (2) personal journals, (3) class-collaborated books, and (4) individually-authored books (Milz, 1981b). These activities continued during the entire school year, both in the classroom and at home:

1. **Note Writing:** Before school started, when class members were identified, letters were sent to each home, welcoming the children to the classroom (see Figure 3-2). Within days, notes were being sent to the teacher. She responded at the end of each school day to the notes which children placed in her mailbox by placing short notes in the child's mailbox for them to read the next day (see Figure 3-3).
September 4

Dear Ted,

Guess what? Miss Jones tells me that I am going to be your first grade teacher. I'm anxious to meet you.

I just came back from Arizona. Last year, I went to school there, and now I'm back in Michigan to be a teacher again.

I'll be working in our room on Tuesday, and I hope you can stop by to meet me. If not, I'll see you on Wednesday when school opens.

Love,
Miss Milz

Figure 3-2. Welcoming letter sent to class member, September 4, 1976.
Dear Alice,

I like you.

Are you going to read your new book at Sharing Time? I hope you will. The class will like your story.

Love,

Miss Milz

Figure 3-3. Sample of note placed in child's mailbox, January 1977.
At an informational meeting, parents were encouraged to write notes to their children to read at lunchtime (see Figure 3-4). Many children began to answer these notes, and place them in lunch boxes or coin purses for parents to read.

Several university professors visited the classroom and wrote notes to the children, which were read and responded to by the class (see Figure 3-5). A college student worked in the classroom for a period of ten weeks, and often received notes from various children.

Letters were written to children in a first grade classroom in Arizona in hope of securing penpals for the class (see Figure 3-6). The class was encouraged to write to authors to share their love of the author's books (see Figure 5-25).

Mailboxes were available for each child, and notes were placed in the boxes by class members for each other.

2. **Personal Journals:** A spiral notebook was given to each child during the first week of school. Three constraints were placed on the use of the journals:

a. Each entry was to be dated.

b. Only pencil or crayon could be used because markers faded through the paper.

c. The teacher would read it at the end of the day and respond to the meaning if appropriate. The children were not required to complete a set amount of writing, or to write daily, though writing of some kind was encouraged. The journal was available
Dear Alice

How are you this morning?
Are you busy? Are you happy?
Are you playing in the playground with friend?

Have good day & lunch

Love, Mom

Figure 3-4. Letter from parent which was placed in child's lunchbox, October 15, 1976.
June 3, 1977

Dear Friends,

The Arizona desert is in bloom. I wish you could see it. The saguaro has crowns of white blooms. The prickly pear blooms are yellow. The hedgehog puts on a show with bright red blossoms.

Our palo verde trees have bloomed already. Their millions of tiny yellow blossoms looked like a yellow snowfall.

Maybe your cactus plants will bloom sometime. I hope they do. They need sunshine and hot weather to bloom.

Your friend,

Dr. Allen

Figure 3-5. Letter from university professor to class, June 3, 1977.
Dear Children in Arizona,

There is a lot of snow, but we have fun and I am 6 and some are 7. I like them. They are my friends. I like them and they like me.

Love,

Scott, and remember I am 6.

Figure 3-6. Letter to prospective penpal: January 12 (Scott, 6:7), photo-reduced.
at all times so the child could draw or write whatever they chose.

As students began to write in the journals, they were encouraged to share their work with the teacher. With children who did not use spaces to indicate word boundaries or represented a word with one letter, this reading to the teacher was needed for initial understanding. Notes in cursive writing were placed in the margin by the teacher to capture the child's message. Timing was important for sometimes the child could not read back what had been written just moments before and the message was lost. However, it was not long into the semester that the patterns of each child's spelling became clear and the teacher, if not the child could read past writing. The teacher did not impose her interpretation on the child, and noted any help the child gave.

3. Class-collaborated Books: Many books have predictable patterns which lend themselves to extensions by student authors. One example is the book Brown Bear, Brown Bear (Martin, 1970a). The pattern in the book was dittoed with blank spaces to allow new forms to be constructed by the children and made into a classbook. Children were encouraged to make up a new colorful animal, as well as draw a picture of it after reading the original book. After approximately ten children contributed pages, these were pasted into a blank book for classroom use. Other children could add pages during the school year as they had new ideas.

Another type of classbook was constructed after a shared activity such as a trip, or holiday happenings in December. Each
child contributed a page describing a part of the activity they recalled.

Books were also made using pictures taken by the children with the school camera. One example is a book with photographs of school personnel. Students also interviewed these people and wrote descriptions of their work in the school.

4. Individually Authored Books: At the beginning of the year, books written by children in classes taught previously by the teacher were placed in the Writing Center to seed the writing of books by the new class. As rough drafts were produced by various class members, they were typed by parent volunteers after a conference between the writer and the teacher was held. Conventional spellings and punctuation was added by the typist, but the child's message was not changed.

At all times when children wrote, they were expected to write as much on their own as possible. When a child asked an adult for the spelling of a word, they were encouraged to try it themselves by the question "How do you think it starts?" Often this was enough to get them to begin to write independently, although a few children did require more adult assistance so they dictated what they wished to write first. When children asked if their invented spellings were spelled correctly, they were told they had spelled the words as other six and seven-year-olds do; but if they pressed further an adult spelling was given. The children were pleased with being able to write independently. They also were asked to share their writing with adults.
in an effort to teach the adults more about how children became writers. In this way the children were encouraged to assume a teaching role in the classroom, and thus to become major informants in the research study.

Parent Teacher Interaction

During the first month of school, an informational meeting was held to enlist the support of the parents in helping their children to learn to read and write. They were invited to become active in the classroom by coming in to listen to children read, by making blank book covers at home or in the classroom, and by typing manuscripts for individually written books. It was also suggested that they write notes to their children when packing lunches for them. Support of literacy development at home was suggested through the use of various activities, such as leaving messages for the children to read, reading daily to the child, listening to the young reader and providing materials and implements for the child to use for writing (see Appendix A, Letter to Parents, a handout used at the informational meeting).

During the meeting the research study was explained. Parent help in collecting writing done at home, as well as any writing brought home by their children, along with permission to duplicate the writing for future analysis, was sought. A parent survey was handed out, to be filled out at their convenience (see Appendix B, Parent Questionnaire).

During the year many conversations were held with the children's parents as they visited the classroom.
Collection of Data

Writing Samples

Writing was collected from all the children in the classroom from September 8, 1976 to May 1, 1977. No child was favored as a potential subject, and all were expected to write. A master file was set up for each student, and each piece of writing was arranged by date. Collection of the writing involved several procedures. First, all notes written to the teacher were answered and the original note from the child was dated and filed. If notes written to other children were thrown in the wastebasket, they were retrieved, dated and filed. When a journal was completed the pages were photocopied so that the original notebook could be returned to the writer. Rough drafts were usually discarded after a book reached the typed form. If the original was available, these were dated and filed, but if the children wished to keep them they were allowed to do so after a photocopy was made. Last, each parent was asked to send in a folder of writing each month. This could contain samples of writing done at home or writing brought home by the child. If the child wrote a letter to a grandparent, for example, the parent was asked to copy the letter before mailing it so as not to destroy the child's intent for writing. A copying machine was available at the school for this purpose, but several parents were able to make the copies at their place of employment. All writing at home was coded AH.

At the close of the data collection period each classroom member's writing file was organized into a large loose-leaf notebook according to chronological date. At this time the child's age at the
date of writing was entered on each page. Figure 3-7 shows that Scott was 6 years, 8 months (6:8) on February 23, 1977.

The entire data bank was microfilmed for possible future study, and the collected original writings were returned to the twenty-eight writers.

Six subjects were selected for cross-sectional analysis. From this group, two children were chosen for in-depth case studies of beginning writers.

Two photocopies were made of the writings of the six selected subjects so that all decisions could be reviewed by a second reader to test the reliability of the data analysis.

Classroom Diary

A classroom diary was kept describing the classroom environment and procedures. Notes concerning conversations with parents regarding their children were kept in the diary, as well as teacher observations relevant to the development of writing in individual children. Discussions with the kindergarten teacher describing her program were noted in the diary.

Home and School Survey Data

The survey and permission slips were returned to the researcher. This survey was designed to provide information on the family, as well as information concerning the early reading and writing of the children, and was adapted from a survey used by Durkin (1966).

School cumulative records were reviewed.
Figure 3-7. Writing sample as coded for study: Journal, February 23 (Scott, 6:8), photo-reduced.

(I like the ocean. It is big.)
Selection of Subjects

The collection of data resulted in 6,865 pieces of paper written by the 28 class members. The writings of six first graders were selected for intensive study, because it was thought they were more likely to be at earlier points of development of writing, and influences on their writing could be more easily observed. To determine the six subjects for the study, age and sex were considered, as well as membership in the class during the entire study. Two children were eliminated because they were not present in the classroom for the required time period. The final six children were chosen so that they were close in age, and to have three boys and three girls in the group of six. The two children with July birthdays were chosen for in-depth case study procedures. Table 3-1 lists all the first graders and their birthdates and shows how the six children chosen were clustered in the middle three months of the year.

Analysis of Data

All of the writings of the six children chosen for intensive study were analyzed in order to answer the major research questions and to generate hypotheses for future study. The cross-sectional data will be presented in Chapter 4 to show relationships among the six subjects' development of writing in order to suggest possible universals in writing development (see Chapter 6). The longitudinal, descriptive analysis for two children will be presented as an in-depth case study of each child in Chapter 5. These case studies will focus on individual and unique aspects of that child's writing development. The
Table 3-1. Birth months and sex of first graders who provided writing data.

<table>
<thead>
<tr>
<th>Month</th>
<th>Girl</th>
<th>Boy</th>
</tr>
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<tbody>
<tr>
<td>January</td>
<td>Caroline</td>
<td>Chip</td>
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<tr>
<td>February</td>
<td>Jenny</td>
<td>Todd</td>
</tr>
<tr>
<td>March</td>
<td>Brian</td>
<td>Mike</td>
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<tr>
<td>April</td>
<td>Regina</td>
<td>Jean**</td>
</tr>
<tr>
<td>May</td>
<td>Laurel*</td>
<td>Scott*</td>
</tr>
<tr>
<td>June</td>
<td>Alice*a</td>
<td>Tagg*a</td>
</tr>
<tr>
<td>July</td>
<td>Vikki*</td>
<td>Ted*</td>
</tr>
<tr>
<td>August</td>
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<td>October</td>
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<tr>
<td>November</td>
<td>Jeanne</td>
<td></td>
</tr>
<tr>
<td>December</td>
<td>Heidi**</td>
<td></td>
</tr>
</tbody>
</table>

* Chosen for cross-sectional analysis.

** Were not members of the class for the entire study period.

a Selected for case study.
cross-sectional data and the analysis of the writings of the two children were organized in the same categories used to organize the research questions in this study: general background of the child as a writer; the child's use of conventions of the writing and spelling systems; and an overview of the child's construction of meaning within written text. The discussion of the types of analysis will begin with the last category, since the construction of meaning is the overall concern of this study and has impact on the understanding of all the other categories.

Overview of the Child's Construction of Meaning Within Written Text

Each piece of writing was analyzed to determine what the child wanted to say. This analysis was designed to answer the research questions listed earlier in this chapter specific to this category:

11. What do first graders write about when encouraged to write daily?

12. What language cueing systems do children use to represent meaning?

Understanding the child's meaning was usually not difficult, as the teacher and the children shared the same experiences and environment. Also, the children frequently read their notebooks to the teacher, which provided additional clarifying information. If the child had not read the passage orally, the researcher still was able to read the message as the child's writing patterns became evident. A second reader validated each decision on meaning. This reader was a
paraprofessional who assisted the physically handicapped child who was a member of the class the last half of the school year.

Both the researcher and the second reader were in a position similar to parent researchers Halliday (1975b) and Bissex (1980). Each of these parents described how their own child developed language within a social context they shared daily with the child. They could understand their child's meaning by virtue of "being there" and interacting with them. The researcher and second reader were able to understand the writings of the students in the classroom in this same way.

One example of the researcher's search for meaning and agreement occurred in Ted's writing in November. Ted used an expression So how do you like that? in his writings along with other varied messages for a period of two weeks. On November 12, he could not help to reconstruct the end of the message. On November 17, he read the entire message that he wrote on that day, It has been a nice day, so how do you like that? The end. He had used smaller letters for that and the end, eliminating the conventional spacing between the words the and end, merging that and the as he wrote HATHED. By re-examining the November 12 entry, which was the last of a series of four pages ending with HEN, the researcher and second reader noted the similarity to the ending words on November 17. They agreed, based on this kind of examination, that Ted began the with an H and blended it with EN or ED to create the meaning The end (see Figures 3-8 and 3-9).

If the child read the message, cursive notes were entered on the margins of the page whenever necessary in order to retain the
Figure 3-8. Search for child's meaning through study of writing samples: Journal, November 12 (Ted, 6:2), photo-reduced.

(I got sick. So how do you like that. I got a note. The end. p. 51.)
Figure 3-9. Search for meaning through study of writing samples:
Journal, November 17 (Ted, 6:3), photo-reduced.

(It has been a nice day. So how do you like that.
The end. p. 54)
child's meaning as in Figure 3-9. On September 17, Tagg wrote I WISH I KRTATR. He read this as I wish I had a guitar and this was noted in the margin of the page. The second reader suggested that it be read I wish I could get rid of tartar because of the previous entry that Tagg had made, At the dentist's office I got my teeth cleaned. She had heard many dentists' lectures to her own children, and presented a logical argument but Tagg's verification became the accepted meaning (see Figure 5-39).

Three words, out of the 37,001 words analyzed, were not reconstructed. These were in three different messages written by three of the children. Agreement was reached on the meaning of all other words.

The Child As a Writer

Quantitative Data. A word count of each child's writing was made to provide the units on which the subsequent analyses were to be based and to answer question 2, How much will self-motivated children write?

All words were counted, including names, labels, the month from the date, salutations, and closings. Numbers were only included in the word count when they were used to represent an amount within the message, such as this response BECAUSE IT HAS 31 DAYS (Because it has thirty-one days) (see Figure 5-55). Similarly, an initial standing for a last name, was counted as a full word. SCOTT H. is counted as two words (see Figure 3-10).
Figure 3-10. Sample illustrating word count of 17 words, T-unit markings, and conventional placement of punctuation: Note, October 13 (Scott, 6:4), photo-reduced.

(Scott H.
Dear Miss Milz,
I hope you have a dog like this one.
Love,
Scott H.)
When the word count was completed, a thousand-word sample for each child was selected to be used for analyses of the writing of the six subjects. The sample was used to support answers to the remaining research questions. This sample was composed of three segments consisting of the first 200 words written, the middle 300, and the last 500. These segments were chosen in order to show changes during the academic year. The sample size reflects increased production for each period.

**Types of Writing.** Each piece of writing was classified according to its type in answer to question 3, What types of writing are produced by first graders? Protocols were classified as follows:

1. **Journal:** This writing was found in the subject's personal notebook. It could be interactive, but would not be categorized as a note, unless it had a heading such as "Dear ______" or "To ______" (see Figure 3-11).

2. **Notes:** A personal message directed or addressed to another person (see Figure 3-10).

3. **Story:** A narrative that sets forth events which may reflect or parallel real life, or be fictional in nature (see Figure 5-44).

The second reader, who had previously validated the child's meaning and the word count, reviewed the coding to test the reliability of the data analysis. In all, 387 pieces of writing were checked; there was interrater reliability on 380 of the pieces, for 98% agreement.

**Functions of Writing.** The functions of writing were analyzed
I like to ride my bike. Do you like riding bikes? Tell me if you do.

Figure 3-11. Journal, April 28 (Laurel, 6:10), photo-reduced.
to answer question 4, What functions does writing serve for young
children?

The functional strategies were categorized based on the
principles of Halliday's seven functions for oral language development. As children know why language is used, they learn how to use it themselves. Halliday's model of oral language development was used to provide insight into the language functions of writing. At the time of first grade, children have experienced development of all of these functions in oral language and may use these same functions as they develop written language.

The uses of language were categorized according to the five of Halliday's (1973) seven functions used by the subjects, and these five categories became the basis on which question 3 was answered.

The writings were classified as follows:

1. **Regulatory** refers to the language used to control behavior. Scott uses the function to remind himself and his family to save magazines (see Figure 3-12).

2. **Interactional** refers to the language used to get along with others. In this example, the note allows Tagg to interact with his grandmother (see Figure 5-37).

3. **Personal** refers to the language used to express individuality. Alice describes her vacation in this example of the personal function (see Figure 3-13).

4. **Imaginative** refers to the language used to pretend or create new worlds. This function was used by Alice to create an imaginary Chocolateland (see Figure 5-23).
Save old magazines and bring them to school.

Figure 3-12. Note, October 15 (Scott, 6:4).

(Save old magazines and bring them to school.)
Figure 3-13. Journal, January 3 (Alice, 6:5), photo-reduced.

(I had fun without school.)
5. **Informative** refers to the language used to communicate information. Information about the Brontosaurus was supplied to the reader by Scott (see Figure 3-14).

A second reader, a researcher who is an authority in child language development, reviewed the coding to check the reliability of the data analysis. Interjudge reliabilities were relatively high at 97%. Where occasional disagreement arose, discussion followed, and a function was assigned as agreed.

**Audience.** The audience to which each piece of writing was written was analyzed to answer question 5, Who is the audience in the classroom and home for the child's writing? The pieces of writing were coded using categories loosely based on Britton's (1975) sense of audience category system. The various audiences are:

1. **Self:** Writing from one's own point of view without regard to others' understanding that point of view (see Figure 3-15).
2. **Teacher:** Writing specifically to interact with the classroom teacher (see Figure 5-34).
3. **Known adults:** Writing to adults, who assisted or visited in the classroom, as well as adult relatives and friends at home. This could be parents, an aide, university professors, a college student or other visitors, a neighbor, an aunt, or a grandparent (see Figure 5-37).
4. **Peers:** Writing to other children of similar age level and/or interests (see Figure 5-22).
5. **General audience:** Writing which has a context wide enough to
Figure 3-14. Story, February 9 (Scott, 6:7).

(Brontosaurus was a plant eater. He ate plants.)
Figure 3-15. Journal, January 11 (Vikki, 6:4), photo-reduced.

(I like Scott J. He is only nice to me. I like you, Room 14. Me too. I like me.)
be understood by a reader unknown to the writer (see Figure 5-50).

Interrater agreement was 100 percent when the second reader, the researcher who reviewed the coding of the functions of writing category, checked the coding of the child's sense of audience.

**Syntactic Development.** This information was analyzed to partially answer question 6, How does syntactic maturity in writing occur? The thousand-word sample was segmented according to Hunt's (1965, p. 20-23) T-unit analysis after deducting the following from the word count total: names used as signatures, headings and closings from notes, and dates. Only continuous text was used for coding.

The child's meaning was used to determine the number of words written as in this example (see Figure 5-39).

**AT THE DENTISTS OFFICE IGTMEKLE**

(At the dentist's office, I got my teeth cleaned)

The above is coded as 9 words, composed of one T-unit with two clauses. A T-unit may be defined as an independent clause plus any dependent clauses that may be attached or embedded within it, and is a sentence-like unit grammatically capable of being terminated with a capital letter and a period (1965, p. 21). Hunt has done much of the pioneering research in syntactic development. He found the best measure of syntactic maturity to be the average number of words per
T-unit or T-unit length (1965, p. 23) while the second best indicator is mean clause length.

The data were analyzed to determine the average number of words per T-unit, and the mean clause length. The clause subordination ratio was analyzed to determine how many clauses were placed into the T-units. Hunt gives profiles of how many words per T-unit fourth, eighth and twelfth graders produce in their writing, as well as ratios for clause length per T-units distributed for each grade level. Hunt did no research using T-unit analysis for writing below the fourth grade level, though O'Donnell, Griffin and Norris (1967) looked at the production of T-units in writing at the third grade level and Ward (1974) determined the number of words per T-unit used by a group of second graders. All six of the children in the current study were compared to these indices. Although statistical information was used in comparing data, descriptive information is also significant and was analyzed to gain information about the subjects' syntactic development.

A second reader, a researcher who is an authority in child language development, counted the T-units to check the reliability of the data analysis. Agreement was established at nearly 100 percent. On the few occasions of disagreement, discussion followed and a decision was reached.

The Child's Use of Conventions of the Writing and Spelling Systems

Word Boundaries, Linearity and Directionality, Utilization of Space, and Letter Size. The data was analyzed to answer question 7, How do children learn to use space on their paper in the following
areas: (a) word boundaries, (b) linearity and directionality, (c) utilization of space, and (d) letter size. The pieces of writing were examined to establish and describe how the children were internalizing and using the rules of the spatial aspects of text.

Capital and Lowercase Letters. The thousand-word sample was analyzed to provide information to answer question 8, How do first graders use capital and lowercase letters as they write? At the word level, the choice of capital or lowercase letter was coded according to initial, medial or final position. These judgments were considered in light of the word's placement within the sentence and on the page. On October 13 (see Figure 3-10), Scott had 9 opportunities to use capital letters. He placed these 9 capitals conventionally. He created 39 opportunities to use lower case forms. Although he placed 33 of these in appropriate places, he placed capital letters in the remaining 6 places, 4 in the initial position (H in Ho, H in Haf, D in Dog, L in Lik), 1 in the medial position (N in oNe), and 1 in the final position (K in LiK).

Webster's New Collegiate Dictionary (1974) Handbook of Style was consulted to determine conventional usage for comparison with the child's choice of capitals and lowercase. The data were tallied by segment to show changes in usage during the school year. A pre-service teacher, who worked in the classroom during the school year and who also has a background in linguistics and language development, analyzed all the data to test for interrater reliability. In all, 20,605 bits of information were checked. There was agreement on 20,442 pieces
(99.2%) and agreement was reached on the remaining 163 capital/ lowercase placements after discussion.

**Spelling.** Spellings were analyzed to provide information to answer question 9, What hypotheses do children form about the orthographic system as they begin to spell? The conventional spelling was placed above the child's invented spelling as the data was read to determine meaning. These data were entered into a computer to determine how children's spellings changed over time.

Each day's spellings were entered as follows:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Date</th>
<th>Sex</th>
<th>Segment</th>
<th>Word</th>
<th>Spelling</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>10/13</td>
<td>M</td>
<td>1</td>
<td>Dear</td>
<td>Der</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Miss</td>
<td>Miss</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Milz</td>
<td>Milz</td>
</tr>
</tbody>
</table>

These entries were alphabetized by computer and listed according to the date to trace the development of a particular spelling:

<table>
<thead>
<tr>
<th>Word</th>
<th>Child's Spelling</th>
<th>Subject</th>
<th>Date</th>
<th>Sex</th>
<th>Segment</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOPE</td>
<td>HO</td>
<td>2</td>
<td>10/13</td>
<td>M</td>
<td>1</td>
</tr>
<tr>
<td>HOPE</td>
<td>HOPPE</td>
<td>2</td>
<td>4/29</td>
<td>M</td>
<td>3</td>
</tr>
</tbody>
</table>

An overall list of each word also yielded word frequencies and how often a word was conventionally spelled:
Spellings were also analyzed to determine the influence of the language cueing systems, such as graphic and phonological, on the choices each child made in choosing a particular spelling.

**Punctuation.** The writing of all six subjects was analyzed to answer question 10, What uses do children make of punctuation in their writing? The writing data was coded to note where punctuation opportunities were created by the child.

In the sample in Figure 3-10, for example, twice Scott placed a period after the initial representing his last name. He also could have placed commas after the opening, *Dear Miss Milz*, and the closing, *Love*, as well as a period at the end of his only sentence. He created 5 opportunities to punctuate, though he only used two of them. This data was tallied to determine which types of punctuation were used in the children's writing when they had a need to use it.

Five categories emerged which provided insight into the ways children interact with the points at which convention calls for punctuation marks:

1. **Omission:** Children may leave out punctuation from conventional places. Scott does not end final sentences with a period (see Figure 3-10).
2. **Insertion:** Children may place punctuation in nonconventional places. Alice places an extra period after *you* (see Figure 5-22).

3. **Substitution:** Children may substitute one punctuation mark for the conventionalized mark. Tagg places a period where a comma would be appropriate (see Figure 5-55).

4. **Misplacement:** Children place the punctuation mark close to the conventionalized placement, but not fully conventionalized; for example, using a hyphen but not where the syllables indicate (see Figure 5-55).

5. **Conventional:** Children use appropriate placement of punctuation. Scott places periods after his initial (see Figure 3-10).

Comparisons between the three segments were made to show how the data examined changed over time.

*Webster's New Collegiate Dictionary's* (1974) *Handbook of Style* was utilized to verify decisions. Several language textbooks at the upper elementary school levels were also consulted to determine conventional usage of punctuation.

A second reader, a pre-service teacher with a linguistics and language development background, analyzed the complete coding and virtually 100% agreement was reached on the 1,471 opportunities for punctuation created by the six children.
General Background

**Parent Survey.** The information obtained from the Parent Questionnaire (see Appendix B) was analyzed to provide descriptive background information and insight into answering the research questions. The following information was noted for each subject: parents' educational background, parents' attitudes toward literacy, siblings, language usage in home, pre-school experiences, and at-home activities. This data analysis contributed to the emerging profile of each beginning writer.

**Classroom Observation.** The classroom diary was analyzed to provide background information to describe the environmental influences on the writing of the six subjects. Written notes kept by the teacher on a daily basis were condensed into a list of experiences and activities occurring within the classroom.
CHAPTER 4

SIX CHILDREN LEARNING TO WRITE

The main purpose of this study is to analyze and describe the development of writing in six first grade children. Studies with large numbers of subjects often mask individual differences. This cross-sectional analysis of the writing of six children provides the opportunity to look at individual differences, as well as those aspects of writing which are common to all six subjects.

Overall Findings

The findings in this chapter describe the overall development of writing, and are organized into four categories:

1. General Background. The children are introduced. Family, home and school factors are described which may affect the children's literacy development.

2. The Children as Writers. Quantitative data based on examination of the writing samples, such as, amounts of writing, the context in which the writing was produced, types and function of writing, the audience to whom the writing is directed, and syntactic development are presented.

3. The Children's Use of Conventions of the Writing and Spelling Systems. The six subjects use and developing control of the visible features of written language is described, including
conventions of word boundaries, linearity and directionality, utilization of space, letter size, capital and lowercase letter usage, spelling and punctuation.

4. Overview of the Children's Construction of Meaning Within Written Text. The cueing systems used to construct meaning are presented in a summary statement while showing the development of writing within the six children. Construction of meaning not only includes the semantic systems of language, but also the other symbol systems such as syntactic, and orthographic as well as occasional drawings which allow the writer's meaning to reach the readers of their written text.

General Background

External influences, such as parental backgrounds, sibling relationships, previous schooling, and parental attitudes, which may affect literacy development are examined.

Selected Subjects. Six children were selected in order to have those who were close in age, and to have three girls and three boys in the group of six. The six children chosen had birthdates which clustered in the middle three months of the year, June, July and August (see Table 3-1).

Laurel was the oldest girl selected, though she was the tiniest girl in the entire class. Her look was serious and thoughtful as she worked steadily on her writing projects. She was one of the quietest children in the room, only volunteering when called on; but her parents
related that she was quite different at home. In fact, she was both active and noisy.

Alice was a friendly, yet very serious child who was very sensitive to the feelings of others. Her curiosity was frequently evidenced by the questions she asked, both verbally and in her writing.

The youngest girl selected was Vikki. She was always smiling, and her pleasure in whatever she did was obvious. Vikki got along equally well with both boys and girls as well as adults. She liked to involve nearby persons in whatever she was writing, and would frequently be found in the center of any noisy activity.

Scott was the oldest boy selected. He was a happy child with a ready smile, yet he had a very serious side. He would work on a particular writing activity and involve nearby persons in what he was doing by showing them whatever he was working on.

Tagg was a friendly but quiet child, who worked independently while moving from one project to another. He did not initiate a conversation with an adult, but was very pleased when they commented on what he was writing.

Ted was the youngest boy in the first grade, as well as the quietest and most sensitive. When a mock presidential election was held at the school, he burst into tears, saying "But I don't know what vote is." Yet he was very determined, with definite ideas of what he would do. He was artistic and imaginative, often telling involved stories about his pictures, and writing short labels to describe them.

The six selected children were individuals with unique personalities and physical characteristics. Although they shared a closeness
in age as well as an enthusiasm to write, they reflected the individuality typical of the differences found among any children in the classroom.

Parent Background. Each of the children lived in a home where both parents were present. All the parents could be classified as literate individuals who recognized the importance of reading and writing in their daily lives.

All of the subjects' parents had completed a minimum of a high school education. Two of the fathers had earned doctorates, one in Education and the other in Chemistry. One mother was completing a Bachelor's degree in the field of art (see Table 4-1).

During the year of the study, nine of the twelve parents were employed outside the home. One mother who was a social worker worked on a part-time basis, and was able to work out a flexible time schedule. One mother was taking a full-time schedule of classes at a local college in order to complete her degree. Two of the mothers who were not currently employed outside the home had young children they wished to care for in the home setting (see Table 4-1).

Most of the parents had Midwestern origins, according to the parent surveys about the subjects in the study. Six had lived their entire lives in Michigan. The notable exception was Alice's parents, who had emigrated from Korea. All spoke English in the home, although Alice's parents spoke Korean as well.

Many of the parents' occupations require relocation every two or three years, which means the school community is characterized by a fair amount of mobility. Though similar geographic origins were
### Table 4-1. All subjects: parental background.

<table>
<thead>
<tr>
<th>Child</th>
<th>Parent</th>
<th>Occupation</th>
<th>Geographic Origin</th>
<th>Education Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laurel</td>
<td>Father</td>
<td>Deputy Supt. of Schools</td>
<td>Indiana</td>
<td>Doctorate</td>
</tr>
<tr>
<td></td>
<td>Mother</td>
<td>Social Worker</td>
<td>New York</td>
<td>Masters</td>
</tr>
<tr>
<td>Scott</td>
<td>Father</td>
<td>Tire Dealership Owner</td>
<td>Michigan</td>
<td>High School</td>
</tr>
<tr>
<td></td>
<td>Mother</td>
<td>College Student</td>
<td>Michigan</td>
<td>High School</td>
</tr>
<tr>
<td>Alice</td>
<td>Father</td>
<td>Chemist</td>
<td>Korea</td>
<td>Doctorate</td>
</tr>
<tr>
<td></td>
<td>Mother</td>
<td>Nurse</td>
<td>Korea</td>
<td>Masters</td>
</tr>
<tr>
<td>Tagg</td>
<td>Father</td>
<td>Self-employed, Family Business</td>
<td>Michigan</td>
<td>Bachelor</td>
</tr>
<tr>
<td></td>
<td>Mother</td>
<td>Personnel Manager*</td>
<td>Michigan</td>
<td>Bachelor</td>
</tr>
<tr>
<td>Vikki</td>
<td>Father</td>
<td>Branch Manager</td>
<td>Montana</td>
<td>High School</td>
</tr>
<tr>
<td></td>
<td>Mother</td>
<td>Secretary</td>
<td>Illinois</td>
<td>High School</td>
</tr>
<tr>
<td>Ted</td>
<td>Father</td>
<td>Engineer</td>
<td>Michigan</td>
<td>Masters</td>
</tr>
<tr>
<td></td>
<td>Mother</td>
<td>Electric Living Advisor*</td>
<td>Michigan</td>
<td>Bachelor</td>
</tr>
</tbody>
</table>

* Not currently employed.
revealed for most parents, nearly all had moved several times before living in the Way School area. At the end of the school year in which the study occurred, Tagg moved to a bigger home within the school district. At the end of second grade, Scott's family moved to western Michigan. Vikki's family moved to Chicago and Ted's family moved to a nearby suburban area at the end of third grade. At the same time, school boundaries changed within the district, which meant Laurel was transferred to another district school. During fourth grade, Alice's family moved to Louisiana. Three years after the data collection for the study was ended, only Laurel remained in the same home occupied during the time of the study, and all of the children had left the Way School attendance boundaries.

Table 4-1 summarizes the parental backgrounds of the six subjects. Each parent had completed high school, although 75% had continued their education at the college level. At the time of the study, 75% were currently employed. Although the majority of the parents had Midwestern origins or lived most of their lives in this geographic area, all had moved previous to their attendance in the Way School area and had left within three years of the close of the study.

Sibling Relationships. Each of the six subjects had at least one other child present in the home during the year of the study. An interesting age pattern occurred between the three girls and the three boys who were chosen as subjects.

The three girls were the youngest in their families, while the three boys were the oldest. Laurel had one older sister, who attended junior high. Alice had two older sisters, one at Way School and one at
the junior high. Vikki had two older brothers, one in the sixth grade at Way School and one in high school. The boys presented a contrasting picture, as they were each the oldest child in the family. Scott and Ted each had one younger sister, while Tagg had two younger brothers.

Laurel and Alice's parents both pointed out the influence of the older sisters on the younger children as they answered questions in the parent survey. Laurel's sister was a prolific writer of stories and poems. She did a lot of writing in which she noted her thoughts and ideas for her own pleasure. Alice's sisters enjoyed playing school, and she became their student. She repeated words from her sister's books and learned to write her name and isolated words. Vikki's sixth grade brother adopted a fatherly image toward his little sister, and was constantly helping her. He would often stop by her first grade classroom to check with the teacher on her progress. The writing experiences that the girls had in their home surroundings were greater in amount and intensity than was evidenced by the parent reports on the three boys. Although the activities did not constitute direct instruction and were the result of play or interaction with siblings, the influence needs to be considered in light of the differences found between the boys and girls.

Personal Background. At the beginning of the study each child had an impressive language background. All the children began to talk between 10 and 16 months of age. They were all fluent in English and able to communicate with adults and other children in their environment. Moskowitz (1978, p. 92) comments on this acquisition of language by young children, saying: "Within a short span of time and
with almost no direct instruction the child will analyze the language completely. In fact, although many subtle refinements are added between the ages of five and 10, most children have completed the greater part of the basic language-acquisition process by the age of five." Alice was able to understand Korean at the time of the study as it was spoken in her home, but English was her first language (see Table 4-2).

All of the children had had some nursery school experience except for Ted (see Table 4-2). He interacted the least with other children and reflected a more solitary upbringing. Ted frequently played or worked alone and was able to keep himself busy on various projects. As the year progressed, he began to share and relate to others. Although Laurel was very quiet in school, she quickly began to relate to the other children and only retained her quietness when adults were nearby.

The children all attended the Way Elementary School during their kindergarten year. They were in a program where the emphasis was mostly on socialization, and not particularly academically oriented. The kindergarten teacher loved animals, and an assortment of fish, guinea pigs, ducks, lambs, etc. was present in the classroom during the school year. The children had free play, when they could use a dress-up corner, or various climbing equipment pieces. An easel was set up with tempera paints as one of the choices. Puzzles, games, and a few books were available. Each week the children went to the Media Center for Story Time, and the kindergarten teacher read to the children in the classroom on a daily basis. Several times a week, an
Table 4-2. All subjects: personal background.*

<table>
<thead>
<tr>
<th>Child</th>
<th>Language Usage</th>
<th>Age of First Talking*</th>
<th>Length of Nursery School Experience*</th>
<th>Age of First Writing Attempt*</th>
<th>Kind of Writing*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laurel</td>
<td>English</td>
<td>12 months</td>
<td>1-1/2 years</td>
<td>4 years</td>
<td>Name</td>
</tr>
<tr>
<td>Scott</td>
<td>English</td>
<td>12 months</td>
<td>2 years</td>
<td>2-1/2 years</td>
<td>Name</td>
</tr>
<tr>
<td>Alice</td>
<td>English, understands some Korean</td>
<td>10 months</td>
<td>2 years</td>
<td>4 years</td>
<td>Name</td>
</tr>
<tr>
<td>Tagg</td>
<td>English</td>
<td>12 months</td>
<td>9 months</td>
<td>4 years</td>
<td>Name</td>
</tr>
<tr>
<td>Vikki</td>
<td>English</td>
<td>16 months</td>
<td>7 months</td>
<td>4 years</td>
<td>Letter to grandparents</td>
</tr>
<tr>
<td>Ted</td>
<td>English</td>
<td>12 months</td>
<td>None</td>
<td>6 years</td>
<td>Note to grandfather</td>
</tr>
</tbody>
</table>

* Reported retrospectively on Parent Questionnaire.
art lesson was taught where children used scissors, paste and paper. In the spring semester, the children were taught all the alphabet letters in capital and lowercase form. A different letter was presented each day using the following format for a lesson:

```
H H H H H
Hi Hi Hi
Help Help
```

The teacher named the letters and words as she wrote them on the chalkboard one at a time. The children were expected to copy the letters as directed in the lesson.

All the children had experience with writing at home prior to their kindergarten experience, except for Ted (see Table 4-2). When his mother became aware of the need to have materials on which to write available, during the parent meeting held in September, she immediately made them accessible to Ted. His first writing at home was a letter to his grandfather, who lived in northern Michigan. Four of the six children began to write at home using their names. Hildreth (1936) noted this same interest in the pre-schoolers from whom she was collecting test data. The children spontaneously wrote their names on the materials they were being tested on. Vikki's first writing was produced as a letter to her grandparents. She wanted to participate in the same kind of activity that her mother engaged in at home.

Table 4-2 lists some of the elements of the personal background for each child at the beginning of the study. They were all fluent speakers of English. All had school experience prior to first grade.
Except for Ted, all had shown interest in writing in the home environment.

**Parental Support of Children's Educational Experiences at School.** The twelve parents shared a common interest in supporting the education of their young children. The parent surveys revealed that books were present in every home. Many children had access to children's magazines, comic books, dictionaries and newspapers. Writing materials available in the home included assortments of paper, notebooks, pencils and markers. Vikki and Scott frequently brought in writings on scrap paper that their parents brought home from the office.

The parents were all actively involved in helping their children acquire literacy. They wrote notes which were packed in the child's lunchbox, and left notes in the child's mailbox whenever they stopped by the classroom. Every parent accompanied their child to Open House, and listened as the children read to them. Notebooks were brought out by the children for the parent to read before the visit ended. Parents reported that they frequently read to their children at home, and they expressed enjoyment as their child began to read independently. They were surprised and pleased as the children began to write to them.

Within the classroom each mother provided assistance during the school year. Tagg and Ted's mothers each came an hour a week to listen to children read. Scott and Laurel's mothers came for an hour whenever their schedules permitted. Alice's mother helped chaperone field trips on several occasions. Vikki's mother made typed copies of the child-
ren's manuscripts to be placed into the blank books. Laurel's mother sewed pages together for the books.

As the mothers became involved in the classroom, they provided support for the children and teacher, and were learning more about their own children. Many commented on articles in popular magazines or the newspaper regarding educational issues. They began to ask questions of the teacher about the classroom program, as well as observe how the children were learning—sometimes in a way that was contrary to what they had expected from their readings. One example involved Scott. He informed his teacher the first week of school that he could read. Choosing a book, he proceeded to name words, IT, THE, and GO. He struggled to sound out these words letter by letter although he skipped around the page trying first to find words he could identify. Later in the school year, after one of her visits to the classroom where she had listened to her son and other children read, Scott's mother noted that by following various strategies from her readings, she had handicapped him in his fluent reading development. During the year both of Scott's parents became observers of his development. They read to him and responded to his attempts to read whole stories, rather than trying to instruct him in isolated skills. There was a carryover in how they interacted with Scott as he attempted to write. They wrote notes to him, and were pleased as he wrote back to them. Scott responded to their interest by writing everywhere, even in a restaurant as he waited for dinner to be served (see Figure 4-1).

The twelve parents of the children provided assistance which encouraged the development of literacy both in school and in the home.
Figure 4-1. Spontaneous writing, November 4 (Scott, 6:4), photo-reduced.

(I like dinosaurs but if the dinosaurs were alive, I would be scared. The end.)
They reported the presence of reading as well as writing materials in the home. There were many interactions between parent and child as the parents read aloud, wrote notes, and noticed their child's growth in both reading and writing. Many mothers participated in the classroom as they provided needed assistance to the children and teacher. As they understood how reading and writing were developing in the children, they were able to respond in new ways to their child.

The Children As Writers

Data on the amount of writing produced by each child in the home and school context, types and functions of writing, the audience to whom the writing is directed, and syntactic development are now presented.

Amount of Writing. Writing samples were collected for a period of 34 weeks beginning with the first day of school on September 8, 1976 until the close of the study on May 1, 1977.

A total of 37,001 words was written by the six subjects. The amount produced ranged from a high of 10,889 words written by Laurel to a low of 2,526 words recorded by Tagg. The following is a rank according to the amount of writing produced: (1) Laurel, (2) Alice, (3) Vikki, (4) Scott, (5) Ted, and (6) Tagg. The three girls wrote over twice as much as the three boys. Their portion of the 37,001 words represented 70% of the total. Figure 4-2 shows the relationship of the 1000 word sample selected for in-depth analysis to the entire amount produced by each child. Comparisons of the same amount of writing to the time the child used to complete that writing can be seen. For
Figure 4-2. All subjects: total words written during study period.
example, Laurel wrote her first two hundred words in a two-week time period while Tagg used five and one-half weeks to write the same amount.

The children increased their production of writing at different times. One factor that increased all the children's output was when a child neared the end of a notebook. Usually they began to count pages and anticipate the completion when they could take the notebook home and receive a new one. Laurel filled each page with small writing, and it took her over half of the school year to complete her first notebook. Figure 4-3 records her excitement as well as her plans for choosing a second notebook.

Another factor which influenced the total amount of writing in the classroom was the allowance of time to be used for writing. Sharing the belief of Britton (1975, p. 3) that children "learn to write largely by writing and it is misguided to expect them to 'practice' in one lesson what they will actively employ in another," workbooks and dittoed skills lessons were not used in the classroom. This increased the amount of time children had available during the school day for free writing.

The children were encouraged to write whenever they wished during the school day. If only allowed to write at certain times, some children might finish sooner while others might not have enough time, and not be able to return to their train of thought if they returned to the piece later. Thus a writing period was never designated, with the hope that no opportunity to write would be missed. Vikki illustrated this flexible use of her time for writing. In January she produced the
February 9, 1977

I did 66 pages in my notebook and I have a more pages to go and I am very very very glad. Are you? Do you like yellow? I am going get a yellow notebook for my second notebook.
full three hundred word segment in a week and a half, even though overall she wrote the least of the three girls. She had become very excited about her growing ability to write, and even spent her recess time writing in her notebook (see Figure 4-2).

The six children wrote varying amounts each day. The opportunity as well as the materials to write was available during the school day, and the children were expected to write. Due to the factors of finishing a notebook and new-found success at writing, this meant that Scott and Vikki, who were not the most prolific writers, wrote the middle three hundred words in less time than Laurel, who wrote the greatest amount over the entire year (see Figure 4-2). During the study, each of the children adjusted the amount of writing to meet their own personal needs or reasons for writing.

School and Home Writing Production. The majority of writing produced by the six subjects occurred in the classroom. This was not surprising in view of the fact that the children were in school for 6-1/2 hours daily, and, except for Vikki, rode school buses which increased the school day to 7 or 7-1/2 hours, depending on the home location.

In looking at the amount of writing produced at home, a pattern begins to emerge. Vikki, Scott and Alice produced 20% of their collected writings at home. Each of these children kept a journal in the home setting. The other three children wrote 5% of their total writing at home, as seen in Figure 4-4.

Topics chosen at school often were repeated when the child wrote at home. Often the topic was used first at school, but examples
Figure 4-4. All subjects: writing produced at school and home.
of first usage at home were also found. Similar entries were not always written on the same day. On the Wednesday after his visit to a Chinese restaurant, Scott wrote about this experience in the journal that he kept at home. A week later he wrote about the same experience (which actually occurred 12 days before—not on the previous Friday). Much of the content of the two entries was similar, although he focused on two different details: the restaurant in the school entry, and the kindness of the restaurant staff in the other (see Figures 4-5 and 4-6).

The children also duplicated the style and materials of their writing if they wrote at home. Vikki kept a journal in a spiral notebook at school and at home. She stapled separate sheets of paper together in a similar way to the blank booklets found in school to write when using a story format. She wanted these manuscripts typed into books for the classroom just as the ones were that she wrote at school. Though the subject matter or content is different in each of the examples, Vikki wrote in a similar style as she expressed her opinions, and engaged the reader's interest by the use of questions (see Figures 4-7 and 4-8).

When children were able to write at home, they created the opportunities to play with language for themselves. These experiences were similar to the protocols described by Weir (1962, p. 15), as she listened to tape recordings of her son during his pre-sleep monologues. Anthony would repeat some words over and over, as well as practice placing his known vocabulary into fixed sentence frames. In a similar way first graders enjoy reading the same book or story many times
Figure 4-5. Journal, January 19 (Scott, 6:7), photo-reduced

(On Friday we went to a restaurant. I had some won ton soup and there were real Chinese people. There were nice placemats and pretty lights. There were red lights and yellow lights too.)
Figure 4-6. Journal, January 26 (Scott, 6:7), photo-reduced

(Last Friday I went to a Chinese restaurant. It was a nice place. I got some won ton soup. It was good. There were real Chinese. They were nice. I liked their lights. They were red.)
One day I got a new dog. I was happy. So was my dog. We got a very new dog. If you see it, it will be little. I like her. Do you? I love her, too. Do you like dogs? Well, do you? I do like dogs," said David B. I hope you do. The dog was my way happier. If very meal, my dog will be.
March 8.  

Movie Monsters

I like the movie Monster Book. Do you like it?

I do very much.

I think monsters are mean.

The end.

(Movie Monsters
I like the movie monster book.
Do you like it?
I do very much.
I think monsters are mean.
The end.)
before moving on to new materials. They take great pleasure in playing with familiar stories which they can read easily and competently. Miller, in the forward to Language in the Crib, notes, "His [Anthony's] rehearsal persisted even after social contacts were withdrawn and under conditions where only the pleasure of increased competence could have served as his reward" (Weir, p. 16). As the children in the study composed at home, they used the same style and topics found in the classroom data. Perhaps a similar reward awaited these young writers.

Types of Writing. Writing was an on-going activity throughout the year in the classroom. Writing, however, did not just happen though no "writing" periods with specific teacher-assigned activities were planned in the daily schedule. Instead, the children were bombarded with writing invitations to which they began to respond. They received notes from the teacher before school began (see Note-Writing, Methodology Section, Chapter 3), as well as many notes in their classroom mailboxes. Upon the teacher's suggestion at a parent meeting, parents began to write notes to their children (see Note-Writing, Methodology Section, Chapter 3). The class began to respond to the adults' notes, as well as to write to each other. Notebooks were made available and the children began to write in them. They were also encouraged to read their daily entries to each other. Once a few children read their pages and received genuine responses expressing the interest of peers and adults, the other children wanted to write in their own journals (see Personal Journals, Methodology section, Chapter 3). Books were placed in the Writing Center that had been written by students from previous classes taught by the teacher. Many were read
with the added comment by the teacher, "You could do this too!" (see Individually Authored Books, Methodology section, Chapter 3). Time was allowed for the children to write as they needed in order to fulfill their own particular purposes. Three distinct types of writing emerged in the thousand word samples. They are journal entries (75%), notes (22%), and stories (3%), as seen in Figure 4-9.

**Journals**

The majority of writing produced by the six children was the journal entry. Their notebooks were available for use at any time during the day. Often a child would return to it several times before placing it in the designated area where the teacher would know it was ready for reading. The journals were always read by the teacher after school so the children often did not hand it in until cleaning up for the day, or after sharing a portion at the end-of-the-day evaluation period. The next morning the journal often became the first activity, as the children checked to see what the teacher had written. After the journal was read, new entries were usually made by the children.

**Notes**

Notes, by their nature, require a response. The teacher cleared her mailbox at the end of the day, which created a problem for some anxious first graders. At the beginning of the year they would put a note in, and tell the teacher there was a note in her mailbox. Some would add more notes, but others wanted an answer to the first note before writing another one. Eventually this meant that notes to the teacher were only written once a day while the children would make several entries in the journal. A similar principle occurred as the
Figure 4-9. Types of writing found in merged writing sample for all six subjects.
children wrote to parents, penpals, authors, or others outside the classroom. There would be a natural delay of up to a month when letters were mailed, and the children had to wait for the recipient to write an answer and mail it to them.

Stories

Book making did not begin to occur until December. Although the child-authored books from previous years were on display and read to the children, they did not make an attempt to create a rough draft until much later than expected. Several factors were involved in this delay. First, the teacher was newly assigned to the building during the 1976-77 school year. The books were from her previous school, and did not have the personal connection of having been written by older siblings or friends. The authors could not be invited to read their creations. Second, the class was a first/second grade combination. Usually, second graders who have positive first grade experiences will build on their previous years writing as they interact with the first graders, and the first graders will begin to write story drafts of their own. This particular group of second graders was very negative at the beginning toward writing compared to other second graders the teacher had worked with. Their major experience with writing had been story dictation and not independent writing. One boy informed the teacher that he was the worst writer his teacher ever had. His first story was written in the excitement of getting ready for Halloween, and was filled with invented spellings. His amazement at having the teacher read it, and enjoy it was obvious. He continued to write, although he did not want the stories published, preferring instead to
take them home immediately. In an atmosphere with reluctant writers, it took time to convince the first graders that they could write. In comparison, during the following school year, the first graders in the study were kept together to form the second grade portion of a first/second grade classroom with the same teacher. They began producing stories during the first month of school. The first graders soon followed their example. Jennifer, one of the new first graders, alone produced 28 stories that year, starting to write in late September. She still returns to read and share her writing with the new first graders each year. Thus, first graders in later classes have written many more stories and have begun to write sooner than the children in this study.

Overall the percentage of story writing by the six subjects is small, and this particular group wrote fewer stories than the teacher's previous and subsequent first graders. Yet it is important to note that story writing occurred, and over 200 individual books were produced by this first and second grade class during the year. Children also made duplicates of their favorite books, to be placed in the permanent collection of the school Media Center. Story writing over the entire year from the two in-depth case studies are presented in Chapter 5. The percentage of story writing seems small for two reasons. First, a large amount of journal writing and note writing occurred almost daily for many of the children, while a story might be written over a week's period of time. In addition, many of the stories were produced during the writing that was not selected for the thousand-word sample. For example, Laurel did not have any stories in
the thousand-word sample, but she wrote 6 individual books during the year. Table 4-3 shows when Laurel produced the stories, as well as their titles and content.

Influences Determining Types of Writing

It was hoped that all writing in this study would come from the child's initiative; so open-ended activities were suggested to allow the child to respond. This had an effect on the types of writing that children produced. If the teacher had not written notes, probably few would have been written by the children. Journal writing and book production also require adult support. Teachers who value other types of writing will no doubt see different percentages than those found here. In discussing this study with Martha King at the National Council of Teachers of English Language Arts Conference in Indianapolis on March 11, 1978, she commented that when her writing research team entered a classroom, the children already knew they were going to write a story and would begin to gather their materials. She wondered if different data would emerge if stories were collected after spontaneous occurrences in a classroom without designated writing periods. Children try to produce what is expected of them. When looking at the six subjects individually, the majority wrote similar percentages of each type of writing. The notable exception was Alice, who wrote a larger percentage of notes than the other five subjects, while producing fewer journal entries, as seen in Figure 4-10.

When comparing the three segments for each child, in terms of the types of writing, the most flexibility can be seen in the third segment. Except for Scott, journal writing decreased while story
Table 4-3. Story production by Laurel, 1976-77 school year.

<table>
<thead>
<tr>
<th>Date</th>
<th>Title</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 5</td>
<td>Dad's Story</td>
<td>A Halloween story to be given to her father.</td>
</tr>
<tr>
<td>February 9</td>
<td>When I Went to Hawaii</td>
<td>A factual account of Laurel's recent vacation.</td>
</tr>
<tr>
<td>February 15</td>
<td>A Book About My Mouse</td>
<td>A description of Laurel's toy mouse, complete with possible imaginary happenings.</td>
</tr>
<tr>
<td>March 18</td>
<td>When I Go on Trips</td>
<td>A listing of trips that Laurel took, and what she did on them.</td>
</tr>
<tr>
<td>April 20</td>
<td>A Book About the Sun</td>
<td>Facts about the sun are presented.</td>
</tr>
<tr>
<td>April 21</td>
<td>Spring</td>
<td>Facts about spring and what Laurel can do in the spring are discussed.</td>
</tr>
</tbody>
</table>
Figure 4-10. All subjects: types of writing for the total writing sample.
writing and notes increased. Journal writing dominated every segment except for Alice's first segment, in which she wrote more notes. Overall, Alice's percentages of journal writing and notes were the most even. Table 4-4 shows the increasing flexibility in the use of the three types of writing.

Upon close examination of individual samples, the types of writing produced by the six first graders were not always clearly defined. Alice began journal entries with her teacher's name, which is more characteristic of a note (see Figure 5-8). She embedded a story in a note (see Figure 5-14). Vikki wrote a rough draft using a story format with a title, MY NEW DOG, as well as an opening, ONE DAY, and an ending, THE END. However, she dated the entry as if it were a journal entry, and she began to interact with the reader through the use of questions, DO YOU LOVE HER?, an element often found in a note (see Figure 4-7). In a classroom, where children have control over their writing, they need time to explore and define the characteristics of each type of writing. Susan Sowers (in press) found that the first graders she was observing used the non-narrative mode at first, but switched to the narrative form by mid-year. She defined narrative writing to be any that was ordered chronologically, so narrative could be both fictive or factual as long as there was a development of ideas. However, on the basis of this needed element in story, Sowers concludes that "a teacher who assigns a 'story' to a first grade writer may be assigning a more difficult form than the child can write well."

Classroom experiences affected the type of writing produced in the classroom during this study. Notes were written to the children,
Table 4-4. All subjects: types of writing according to segment (by percentage).

<table>
<thead>
<tr>
<th>Subject</th>
<th>Segment</th>
<th>Journal</th>
<th>Notes</th>
<th>Stories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laurel</td>
<td>1</td>
<td>83</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>85</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>75</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Scott</td>
<td>1</td>
<td>71</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>88</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>85</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Alice</td>
<td>1</td>
<td>43</td>
<td>57</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>78</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>54</td>
<td>38</td>
<td>8</td>
</tr>
<tr>
<td>Tags</td>
<td>1</td>
<td>80</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>83</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>75</td>
<td>21</td>
<td>4</td>
</tr>
<tr>
<td>Vikki</td>
<td>1</td>
<td>82</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>93</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>67</td>
<td>30</td>
<td>3</td>
</tr>
<tr>
<td>Ted</td>
<td>1</td>
<td>77</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>88</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>66</td>
<td>24</td>
<td>10</td>
</tr>
</tbody>
</table>
and they responded by writing notes themselves. Each child was given a notebook, and they began to produce journal entries. Stories by student authors were read, and the children explored this type of writing toward the end of the year. They did not always clearly define each type, but learned how to produce each while engaged in their effort to communicate.

Functions of Writing. As the six subjects wrote, they intended to communicate a message. They used writing purposefully, always with a good reason. They chose types of writing which met their needs, and these choices in turn influenced the function for which each piece was written. As they used writing, which is one type of written language, they were learning writing. Halliday (1973, p. 27) explains, "What the child does with language tends to determine its structure." He believes that children develop language as they seek to accomplish personal goals by using language to interact with others in the environment. As they wrote to suit their needs, the children also learned to control the forms which enabled them to communicate a message. Shuy (1981, p. 107) writes:

Good language learners begin with a function, a need to get something done with language, and move gradually toward acquiring the forms that reveal that function. They learn holistically, not by isolated skills. Such learners worry more about getting things done with language than with the surface correctness of it. They experiment freely and try things out unashamedly.

As a member of a research team studying the use of dialogue journals used in a sixth grade classroom, he investigated the language functions found in the writings (Shuy, 1982, p. 2). He noted that students could use writing to do such things as complain, thank, evaluate, report,
promise, question, or give directives. Across the year these sixth graders changed by using a wider range of language functions while at the same time they gained more proficiency in organizing their writing, and difficulties with surface features, such as punctuation or spelling were reduced. Shuy (1982, p. 76) concludes, "Form follows function," and that language functions "are a more effective measure of writing abilities than any existing measure of language forms."

Heath (1980, p. 130) has gathered data from a black working class community, and recorded the literacy behaviors of persons in the community, at work, at school, and in home settings. She identifies seven uses of literacy: to solve practical problems, to build social relationships, to provide news information (current events), to remember, to substitute for oral messages, to record, and to confirm. She believes, on the basis of this research, that, "All normal individuals can learn to read and write, provided they have a setting or context in which there is a need to be literate, and they are exposed to literacy, and they get some help from those who are already literate."

Halliday (1975b, p. IV) demonstrates the importance of function as children learn written language. He states, "The impetus for reading and writing is a functional one, just as was the impetus for learning to speak and listen in the first place. We learn to speak because we want to do things that we cannot do otherwise, and we learn to read and write for the same reason." Halliday's (1975a, p. 244) major work has been in the field of oral language development. He
presents seven functions of language, which children acquire before they come to school:

- **Instrumental**: I want
- **Regulatory**: Do as I tell you.
- **Interactional**: Me and you.
- **Personal**: Here I come.
- **Heuristic**: Tell me why
- **Imaginative**: Let's pretend
- **Informative**: I've got something to tell you.

By first grade, children have experienced development of these functions in oral language, and can use them as they develop the form of written language. When the analysis of data for this study began, researchers were not looking at writing from the perspective of its function, so Halliday's seven language functions were applied to begin to classify possible functions found in writing. It was determined that 5 out of 7 functions could be identified in the writing of these six children. Heuristic and instrumental functions did not occur in their writing (see Functions of Writing section, Chapter 3).

Over the thousand-word sample, the major functions used were personal, interactional and informative. Imaginative and regulatory functions were rarely used. The choice of notes, journal entries or stories influenced the function used in a particular piece of writing. Notes were mainly interactional in nature. Most of the stories were written using a personal function, and were informative. Few were imaginative or fictional in their content. Journal writing used the
greatest range of language functions, and presented the most change over the year. The total counts and percentage of language functions used by each student are given in Table 4-5. From Table 4-5, it is clear that the boys used the personal function more than any other function. Eighty-two percent of Ted's writing utilized the personal function as compared to the highest personal usage of a girl, Alice (47%). Overall, the girls used the interactional function more than the boys—perhaps reflecting more concern for the building of social relationships between themselves and others in the classroom.

Pieces of writing were found to have single functions, as well as multiple functions. The first story written by any of the six subjects was in a construction-paper covered booklet made by Ted, who wrote the story after returning to school from being sick the previous day. The entire story has a personal function. It is written from a first person perspective as if Ted were still at home and waiting to return the next day (see Figure 4-11). Alice, in comparison, embedded a story, THE SUN, in her letter to the teacher. She used the first person and employed the personal function. However, the story also is informative, as it gives facts about the heat derived from the sun, and the arrival of spring (see Figure 5-14).

Table 4-6 shows the group change in the use of language functions over the three segments. Personal, interactional and informative functions are used most in each segment. During the first segment, personal and interactional functions were used in about the same proportions. In the second segment, the personal function became dominant. However, by the third segment, almost equal usage of the
Table 4-5. All subjects: individual use of functions in journal writing.

<table>
<thead>
<tr>
<th>Function</th>
<th>Laurel</th>
<th>Scott</th>
<th>Alice</th>
<th>Tagg</th>
<th>Vikki</th>
<th>Ted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Times Used</td>
<td>%</td>
<td>Times Used</td>
<td>%</td>
<td>Times Used</td>
<td>%</td>
</tr>
<tr>
<td>Personal</td>
<td>11</td>
<td>29</td>
<td>31</td>
<td>54</td>
<td>17</td>
<td>47</td>
</tr>
<tr>
<td>Interactional</td>
<td>14</td>
<td>37</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Informative</td>
<td>12</td>
<td>32</td>
<td>23</td>
<td>40</td>
<td>12</td>
<td>33</td>
</tr>
<tr>
<td>Imaginative</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Regulatory</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>38</td>
<td>100%</td>
<td>57</td>
<td>100%</td>
<td>36</td>
<td>100%</td>
</tr>
</tbody>
</table>
Figure 4-11. Six-page story, October 5 (Ted, 6:1), photo-reduced.

(I got sick at school.
Tomorrow I [can go to] school.
I like school.
And you go home.
I like home too.
Tomorrow I get to go to school.)
Table 4-6. All subjects: group change over 3 segments in use of functions.

<table>
<thead>
<tr>
<th></th>
<th>Segment 1</th>
<th></th>
<th>Segment 2</th>
<th></th>
<th>Segment 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Times Used</td>
<td>%</td>
<td>Times Used</td>
<td>%</td>
<td>Times Used</td>
<td>%</td>
</tr>
<tr>
<td>Personal</td>
<td>48</td>
<td>38</td>
<td>87</td>
<td>54</td>
<td>58</td>
<td>31</td>
</tr>
<tr>
<td>Interactional</td>
<td>49</td>
<td>39</td>
<td>40</td>
<td>25</td>
<td>58</td>
<td>31</td>
</tr>
<tr>
<td>Informative</td>
<td>18</td>
<td>14</td>
<td>30</td>
<td>18</td>
<td>65</td>
<td>34</td>
</tr>
<tr>
<td>Imaginative</td>
<td>10</td>
<td>8</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Regulatory</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>126</strong></td>
<td><strong>100%</strong></td>
<td><strong>161</strong></td>
<td><strong>100%</strong></td>
<td><strong>189</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
personal, interactional and informative functions can be clearly seen. This happens because of the gradual increase in the use of the informative function, indicating a growth in the children's understanding of the world beyond their immediate environment. Overall, more flexibility in the choice of function could be seen in this segment as the children used writing to meet more complex purposes.

Writing served varied functions for the six subjects, depending on the type of writing chosen by the children. Initially they were able to write in order to present themselves to others within a journal format or to interact through the use of a note. Later they were able to write more complex forms utilizing multiple functions; such as personal writing about themselves while presenting information at the same time. The personal and interactional functions were used predominantly throughout the study, but during the final segment the informative function was used just as frequently. The subjects' writing involved regulatory and imaginative functions only on an occasional basis—appearing in reminders and story booklets.

**Audience.** Many opportunities to write presented themselves to the children in this study. Writing occurred daily. The teacher as well as parents and peers wrote many notes to which the subjects often responded. When journals were made available, the children were informed that the teacher would read them at the end of the school day and respond in writing if appropriate. They eagerly awaited a written response and expressed disappointment if there was none. Stories were written to be read by class members and later to be taken home to be enjoyed by the writer's family. Just as writing was personally
directed to them, they began to direct their messages to the different persons who would receive them. Britton (1975, p. 58) notes, "One important dimension of development in writing ability is the growth of a sense of audience, the growth of the ability to make adjustments and choices in writing which take account of the audience for whom the writing is intended."

Five categories began to naturally emerge as the audiences to whom the writing were directed was analyzed. The categories are: self, teacher, known adult, peers, and general audience (see Audience section, Chapter 3).

Writing produced during this study was directed to the children's classroom teacher more than any other audience. This was largely the result of the extensive note and journal writing which took place in this particular classroom. More opportunities existed for the children to write notes to their teacher than to any other audience. The teacher answered the notes daily, which often encouraged the child to write again. Notes going to audiences outside the classroom had a time delay as they traveled to parents or through the U.S. mail system. Journal entries were read at the end of the school day by the teacher and often were responded to in writing on the journal page. Therefore the children would often direct their messages to her even though the notebook was for their personal use and would be kept permanently by them. The relationship is similar to Britton's trusted adult category. He explains,

Because writing is a way of committing oneself, and because it is at first a difficult process, young children may rely upon the trusted adult reader in even the simplest piece of work.
Later the fact that this particular adult wants to hear anything you have to say may operate as a strong incentive, and a liberator, so that children who haven't written begin to do so simply because they now feel free to say what really matters (1975, p. 68).

Britton notes that the group of 11-18 year olds that he studied as part of the Schools Council Project on Written Language directed 90% of their writing to the teacher. However, the teacher's role was very different from the one in the current study. In the Britton study, writing was assigned by the teacher to have students demonstrate knowledge of curriculum subjects, or for examination purposes. Britton concludes that students need more opportunity to choose a target audience and eventually to write as someone with something to say about the world in general (1975, p. 192).

The teacher in this study was able to provide support for the developing writers. By interacting daily with the children in a shared setting, she was able to understand the messages that were produced with invented spellings that might not have enough cues for persons outside the classroom to read. She became the first available audience to which the children could communicate independently and expect a response. Scott wrote to her within the first week of school, with full confidence that she would understand his message (see Figure 4-12). When Ted began to write in his journal he was usually unable to read his messages. He did not put in enough cues for the teacher to read his writing. However, he was pleased with his ability to write and knew the teacher was pleased with his attempts. It was his first verbal questions to her, "So how do you like that?" as he presented his notebook which provided the first breakthrough in understanding. When
Figure 4-12. Note, September 14 (Scott, 6:3), photo-reduced.

(Dear Miss Milz,
You are a good teacher.
Love, Scott H.)
the teacher heard this question while looking at the notebook, she was able to see the print/sound correspondence. Based on this first question she began to understand other journal entries. As Ted's primary audience, she provided a focus for him to direct further writing to (see Figures 3-8 and 3-9).

Throughout the year children displayed their awareness of the teacher as audience as they made statements, followed by questions for the reader. Vikki asked two questions on January 10 to which she expected her teacher to respond (see Figure 4-13). As Laurel shared her gymnastic experiences, she was prepared to give more information about a back walkover to her teacher, who knew very little about the subject (see Figure 4-14).

The second audience chosen by the subjects was known adults in their school and home environment. Those adults usually were parents who assisted in the classroom. As they shared experiences, they were able to understand the children's messages just as the teacher could. Several notes were written to answer notes that mothers had placed in lunchboxes (see Figure 4-15). Two university professors, as well as a pre-service teacher education student, visited the classroom and were the recipients of letters from the subjects (see Figure 4-16).

Although the peer group as an audience category ranks as a less important group statistically, this was the hardest category for which to determine an accurate count. Children sent invitations to parties, holiday messages, especially for Valentine's Day and made birthday cards with personal notes inside for each other. These were played with and possibly discarded as they did not become part of the writing
Figure 4-13. Journal, January 10 (Vikki, 6:4), photo-reduced

(I like you, Miss Milz. Do you?
I do. I like school. Do you?
I do. I love school too.
I like Tagg.)
April 27, 1974

Yesterday I went to gymnastics. I learned a back-walkover. Do you know what they are? I take two times of gymnastics. It is fun, isn't it? We go to Andover. I used to go to Andover for swimming lessons.

Figure 4-14. Journal, April 27 (Laurel, 6:10), photo-reduced.

(Yesterday at gymnastics, I learned a back-walkover. Do you know what they are? I take two times of gymnastics. It is fun, isn't it? We go to Andover. I used to go to Andover for swimming lessons.)
Figure 4-15. Note, September 28 (Ted, 6:1).

   (Ted, Mom,
    I like your note.)
Figure 4-16. Note, April 19 (Ted, 6:8), photo-reduced.

(Dear Dr. Goodman,

   I like our letters.
They are nice and
thank you for the cactus.
It is growing.

Love,
Ted)
collected by parents. Several parents were able to retrieve notes received by their children from other children, but most were probably lost. When a squabble developed among the girls in the class, Alice was excluded from the recess club. She wrote to Bette, hoping that Bette would still play with her (see Figure 5-22). The teacher was aware of several instances where a child wrote an offensive note and signed someone else's name. The note was torn up by the recipient after angry denials were made by the purported writer.

Writing directed to self (primarily for one's own enjoyment) was only produced occasionally by all the subjects except Vikki. Vikki had the largest amount (18%) in this category, as she particularly enjoyed playing with formulaic patterns, changing only one word or a word grouping in each entry while repeating the simple sentence structure several times. These writings appeared to be mainly for the pleasure of constructing written language (see Figures 4-17 and 4-18).

Relatively few opportunities existed for the children to write to a general audience, which accounts for a low percentage of writing in this category. Writing to a penpal or to a professional author were two instances where the subjects were not personally acquainted with the intended recipient. As Alice wrote to Bill Martin, a noted children's author, she was able to express her pleasure in his books. Though she did not know him personally, she attempted to draw him into her world by identifying her teacher and a pre-service teacher (two people in her environment who had previously met the author). She then listed a series of holidays that had just passed, though it is unclear why she shared this information. One possibility is that she wanted to
Figure 4-17. Journal, October 15 (Vikki, 6:1), photo-reduced.

(Hi Sun,
I like you Sun.)
Figure 4-18. Journal, October 15 (Vikki, 6:1), photo-reduced.

(Hi Witch, I like you Witch.
Hi Vikki, I like you Vikki.)
refer to a book, Silly Goose and the Holidays (Sumera, 1970), identified as a Bill Martin book, but her statement is incomplete (see Figure 5-25). Writing beyond the classroom was the most difficult audience for the six children to attempt to reach.

As the children wrote to different audiences, their writing demonstrated that they were aware of differences between the recipients. On the first day of school each of the six subjects only wrote isolated words which they could spell conventionally. In their previous writing experiences at school, they had always written words spelled the way their previous teachers had dictated. During the first weeks of first grade they would often ask for spellings of words they wanted to write, but most were soon convinced by the teacher that she could read their messages. They were comfortable writing to express what they wanted to say and knew their teacher would respond when they wrote to her. The children found they could write to each other and to parents or several trusted adults who came regularly to the room. Yet during the year when visitors entered the room, if the children wanted to write to them they began to ask questions again about spelling certain words. An unspoken concern seemed to be present that a stranger might not understand what they wrote.

A look at Ted's writing shows how he was aware of different audiences. When he wrote to his Mom on September 28, he responded to the note she had written and placed in his lunchbox. Ted had had little experience with writing before first grade, and his mother was fascinated with his developing knowledge. Ted was very pleased to write to her and not overly concerned with conventional form. He was
able to acknowledge that she had written the note by his choice of the
word R (your) (see Figure 4-19). Later in the year when the class
received letters in the mail from Dr. Goodman (who had visited several
times as well as written a set of letters to the class), Ted was just
as comfortable to write to her as he did to his teacher or mother. He
notes that the letters had been distributed to the children and shared
from child to child as he writes AR LETZ (our letters) (see Figure
4-16). However, when a visitor commented on Ted's notebook and he
wished to write to her, he asked many questions about spelling before
completing the note in Figure 4-19. He also just signed his name and
eliminated the closing, LOVE, and did not attempt to write the recipi-
ent's name. The children were in most cases able to adjust their
writing appropriately for each audience.

Table 4-7 shows the choices of audience by each subject in the
study. The children each directed the majority of their writing to the
teacher. Parents who became involved in the classroom became the
second most important audience. Learning to write usually involved
audiences who shared the environment and experiences of the subject.
As the person understood the child's message and responded, the child
often wanted to write again (see Table 4-7).

**Syntactic Development.** The written text of each subject
changed in length and syntactic complexity during the period of the
study. The need to describe this development of syntax or how units of
meaning are combined with one another has long been a concern of child
language researchers. Loban (1970, p. 625) provides a description of
how syntactic development occurs in school children: "As they mature,
I am glad you like my drawing. Ted

Figure 4-19. Note, April 27 (Ted, 6:8).

(I am glad you like my writing and I am glad you like my drawing. Ted)
Table 4-7. All subjects: choice of audience (by percentage).

<table>
<thead>
<tr>
<th>Audience Type</th>
<th>Laurel</th>
<th>Scott</th>
<th>Alice</th>
<th>Tagg</th>
<th>Vikki</th>
<th>Ted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td>Teacher</td>
<td>82</td>
<td>85</td>
<td>68</td>
<td>85</td>
<td>59</td>
<td>89</td>
</tr>
<tr>
<td>Known Adults</td>
<td>9</td>
<td>3</td>
<td>14</td>
<td>9</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>Peers</td>
<td>3</td>
<td>0</td>
<td>4</td>
<td>1.5</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Gen. Audience</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Unclassified</td>
<td>3</td>
<td>7</td>
<td>6</td>
<td>1.5</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
the low group increases its ability to use dependent clauses whereas the high group shifts to that tighter coiling of thought accomplished by infinite clauses, participle, prepositional, and gerund phrases, appositives, nominative absolutes, and clusters of words in cumulative sentences." Hunt (1966, p. 732) notes these three things about the development of language structure as children mature: (1) they tend to have more to say and produce more words on any given subject, (2) their sentences tend to be longer, and (3) a larger proportion of their clauses are subordinate clauses. Each of these researchers has searched for a unit of analysis to segment and analyze the writing of elementary school-age children.

The use of the concept of the sentence as a unit of analysis presents special problems in dealing with the writing of young children. Frequently an entire piece of writing is one long gigantic sentence, while older students write shorter but more complex sentences. Weaver (1979, p. 145) defines the sentence as consisting of "whatever occurs between an initial capital letter and a final period. According to this definition, [Weaver concludes that] a sentence may be as short as a single word or as long as several hundred words." Young children seldom use this conventionalized notion of capital letters and final periods, so this definition is hard to use to analyze the data collected in this study.

The two most used units of segmentation at the time the data for this study was being analyzed which deal with this problem were Loban's Communication Unit and Hunt's T-unit. A third concept was developed by McCaig (1972), who looked for a measurement to reflect the
purpose of the child. Thus, he created the M-unit or meaning unit. The M-unit was defined "as a word or group of words in children's writing which can be reconstructed into a sentence in accordance with a judgment about the child's intention." The following example reconstructs first grade writing into an M-unit (p. 7):

```
im gnu bren sum rock home
I'm going to bring some rocks home.
```

This judgment of intended meaning was made by a reader familiar with the writing produced by children of the same age and ethnic background of the writer whose work was being analyzed.

In the intervening years since Loban, Hunt and McCaig first published their research, Read (1975) discovered the systematic nature of children's phonological categorizations, thus enabling others to more easily understand the meaning of the writing of young children. Hunt and Loban did not look at the writing of first grade children, but using Read's insights it is possible to now look at first grade writing for purposes of T-unit or C-unit analysis. The T-unit has been used in many studies of writing development, and was thus chosen for use in this study.

**T-unit Analysis**

The T-unit, or minimum terminal unit, consists of "one main clause with all the subordinate clauses attached to it" (Hunt, 1965, p. 20). Hunt found a steady increase in the words per T-unit at each grade level he studied, leading him to conclude that mean T-unit length is the best indicator of a student's grade level while the poorest
indicator is sentence length (p. 23). The mean for Hunt's fourth graders is reported as 8.6 words per T-unit (p. 36). In the intervening years since Hunt's 1965 research, only two researchers looked at writing to determine words per T-unit. The first was the team of O'Donnell, Griffin and Norris (1967), who studied third grade writers. They noted a mean T-unit length of 7.67 (p. 45). Ward (1974) looked at the compositions of second graders along with fourth and sixth grade writing. He determined the mean number of words per T-unit of his second grade subjects to be 6.98 (p. 60). Table 4-8 shows an upward progression of mean number of words per T-unit for these three studies, and the data from the six subjects in the present study is very much in line with the reported studies.

Whereas Hunt (1965) found that the number of words per T-unit lengthens significantly from fourth to eighth to twelfth grade, this same principle applies between grade levels. Findings in this present study support Hunt's conclusion that mean word length of T-units is a useful index when looking at syntactic development across grade levels. Figure 4-20 compares the mean number of words per T-unit for the six subjects to each of the findings of Hunt, O'Donnell and Ward's studies.

Although the T-unit is helpful in showing development across grade levels, individual variation becomes apparent when each subject's writing is analyzed separately. Figure 4-20 shows Alice's average words per T-unit to be 7.09, which is slightly higher than Ward's second graders while Vikki produces 4.15 words per T-unit. The other four children look more similar with the mean number of words per
Table 4-8. Comparison of mean number of words per T-unit for six subjects to three previous studies.

<table>
<thead>
<tr>
<th></th>
<th>Grade 1</th>
<th>Grade 2</th>
<th>Grade 3</th>
<th>Grade 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hunt (1965)</td>
<td></td>
<td></td>
<td></td>
<td>8.6</td>
</tr>
<tr>
<td>O'Donnell (1967)</td>
<td></td>
<td></td>
<td></td>
<td>7.67</td>
</tr>
<tr>
<td>Ward (1974)</td>
<td></td>
<td>6.98</td>
<td></td>
<td>8.76</td>
</tr>
<tr>
<td>Six Subjects</td>
<td></td>
<td></td>
<td>5.48</td>
<td></td>
</tr>
</tbody>
</table>
Figure 4-20. All subjects: words per T-unit for thousand-word sample as compared to three previous studies.

2nd Grade (Ward, 1974)
3rd Grade (O'Donnell, 1967)
4th Grade (Hunt, 1965)
T-unit for all six first grade subjects being 5.48 as reported in Table 4-8.

The differences in development become magnified when broken down by segment for each subject. Vikki consistently produced the lowest number of words per T-unit in each segment for all subjects, although Tagg produced the highest overall words per T-unit count in segment 1. Alice's 8.09 for segment 2, and 7.6 for segment 3 were the highest for each of those segments. Laurel, Alice and Tagg each wrote an average of 1 word per T-unit less in the third segment than the previous one. Table 4-9 shows these differences and summarizes the words per T-unit produced by each subject during each segment.

The figures in Table 4-9 reflect the primary limitation of T-unit analysis, in that they do not show what other kinds of syntactic features are being used and developed by the subjects as they attempt to create meaning. T-unit analysis seems to reflect overall developmental data for groups of children, but for any single child with any given piece of writing a variety of factors must be taken into consideration to reflect or understand the writing development of that particular individual. To determine these factors, an examination of the various factors in the actual writing done during the three segments is necessary.

**Syntactic Features**

During the first segment Tagg used open-ended sentence cards and other supportive resources quite extensively. This meant that he asked nearby adults for assistance (see Figure 5-39), or he copied an open-ended sentence, *At the dentist's office...*, from a card
Table 4-9. All subjects: words per T-unit for three segments.

<table>
<thead>
<tr>
<th></th>
<th>Laurel</th>
<th>Scott</th>
<th>Alice</th>
<th>Tagg</th>
<th>Vikki</th>
<th>Ted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segment 1</td>
<td>6.25</td>
<td>6.42</td>
<td>4.88</td>
<td>8.94*</td>
<td>4.14**</td>
<td>5.56</td>
</tr>
<tr>
<td>Segment 2</td>
<td>6.24</td>
<td>4.88</td>
<td>8.09*</td>
<td>6.02</td>
<td>4.08**</td>
<td>4.26</td>
</tr>
<tr>
<td>Segment 3</td>
<td>5.45</td>
<td>6.67</td>
<td>7.6*</td>
<td>5.51</td>
<td>4.21**</td>
<td>5.97</td>
</tr>
</tbody>
</table>

* Highest per segment.
** Lowest per segment.
available in the classroom (see Figure 5-39). His beginning figure of 8.94 words per T-unit is the highest of the six subjects, probably as a direct result of these strategies. Tagg also quickly began to use invented spellings to complete the meaning he intended.

In comparison, Vikki, Alice and Ted used very different techniques as they began to write. Alice and Vikki used short ritualistic statements, such as HOW ARE YOU? (see Figure 4-21) or formulaic patterns HE SUN, I LIKE YOU SUN (Hi Sun, I like you, Sun) (see Figure 4-17) over and over again. Both began by only writing words for which they controlled the conventional spellings. Ted copied several news statements he found on the chalkboard, TONIGHT OUR PARENTS CAN COME TO SCHOOL (see Figure 4-22). However, by the end of the first month of school he and Alice created their own messages using invented spellings. These statements were related to personal experiences, I HENES DAE (I had a nice day) (see Figure 4-23), I CAT GO ON THE MONKEY BARS P COS I CAT GO (I can't go on the monkey bars because I got cut) (see Figure 5-27).

Laurel and Scott, with 6.25 and 6.42 words per T-unit, present the greatest contrast in their techniques for combining words and phrases to construct meaning. Laurel's entire first segment was composed of 6 pieces of writing on 4 separate days. On September 16 alone she joined 113 words in 17 T-units to tell about herself, her dog, and her sister. She used both simple sentences as well as compound sentences. The compound sentences are constructed conventionally using AND as the connective. However, she sometimes closes the first clause with a period and then adds the second clause as a new
Dear Miss Milz,
How are you?
How are you doing today?

(Dear Miss Milz,
How are you?
How are you doing today?)
Figure 4-22. Journal, September 26 (Ted, 6:1), photo-reduced.

(Tonight our parents can come to school.)
Figure 4-23. Note, September 28 (Ted, 6:1), photo-reduced.

(I had a nice day.)
sentence. This is the earliest evidence of any of the six subjects using or attempting to use the compound sentence. She also uses other sophisticated strategies such as a compound subject MY SISTER AND I, as well as deleting a second subject WE ARE, SOMETIMES WE ARE NICE TO EACH OTHER AND SOMETIMES NOT. All of the writing was in first person. Though she inserted I LIKE SCHOOL and I LIKE GYM, she usually stayed with her own personal interests: enjoyment of her pet as well as her responsibility for the care of the dog, and her relationship with her sister and teacher (see Figure 4-24).

Scott, on the other hand, used fewer words in each piece of writing as he wrote on 19 different days during this segment. His first entries were short sentences within the body of notes to his teacher and other persons in the school (see Figure 4-12). As he wrote in his journal, he used complex sentences with dependent clauses using the subordinating conjunction WIN (when) (see Figure 4-25), as well as BEKES (because) (see Figure 4-26). His first use of the question took place on October 12 (see Figure 4-27). On October 15, he wrote a reminder to himself and his family with an implied subject (see Figure 3-12). Although Scott often wrote using first person, he used the second person pronoun, YOU ARE A GOOD TESH (You are a good teacher) (see Figure 4-12). Scott wrote about a large variety of subjects, choosing strategies which were entirely different from those used by Laurel.

During the second segment, three of the six subjects experienced a considerable drop in words per T-unit, while Laurel and Vikki's figures were very slightly lowered (see Table 4-9). Only Alice
September 16

I am Laurel. My dog's name is Pepi. I like school. Sometimes my dog likes to play with me. She likes to play with me all the time. I feed my dog and then my sister feeds her.

I like gym. My sister and I like to play with my dog Pepi. She has a red bed. She likes her bed. My sister and I have fun with my dog, and my dog likes to play with us too.

My sister and I like to play with each other sometime. Some times we are nice to each other and sometimes not. I like Miss Milz a lot of times and all the time.

Figure 4-24. Journal, September 16 (Laurel, 6:2), photo-reduced.

(I am Laurel. My dog's name is Pepi. I like school. Sometimes my dog likes to play with me. She likes to play with me all the time. I feed my dogs and then my sister feeds her.

I like gym. My sister and I like to play with my dog, Pepi. She has a red bed. She likes her bed. My sister and I have fun with my dog and my dog likes to play with us too.

My sister and I like to play with each other sometime. Sometimes we are nice to each other and sometimes not. I like Miss Milz a lot of times and all the time.
Figure 4-25. Journal, October 11 (Scott, 6:4).

(I like it when we go to the cottage.)
I like the typewriter because you can make a lot of words.

Figure 4-26. Journal, October 13 (Scott, 6:4).
Hi Miss Milz. Do you like teaching in school? Scott H_____.

Figure 4-27. Note, October 12 (Scott, 6:4).

(Hi, Miss Milz,
   Don't you like teaching in school? Scott H_____.)
increased from 4.88 to 8.09 words per T-unit. She began to make lists and discovered the use of commas in a series. This technique served the same purpose as the I LIKE SCHOOL, I LIKE DOUG inventories produced by other children (see Figure 5-52). However, as Alice increased a series to 10 or 12 items this caused a large rise in the number of words per T-unit (see Figure 5-21).

Though the other children showed decreases in words per T-unit, there is evidence of new syntactic development within individual children. Laurel began to use questions, DO YOU NO (Do you know) as well as contractions, DID'T (didn't) (see Figure 4-28). Scott increased each piece of writing to 4 or 5 T-units. He began to join simple sentences by the use of BUT or AND to form compound sentences (see Figure 3-6). Tagg, also, used AND, or BECAUSE, to add a new clause after he had written a simple sentence which was ended with a period (see Figure 5-55). He placed a question in his letter of January 13 (see Figure 5-50) and then answered it for the reader.

Vikki increased most pieces of writing to 4-5 T-units. Though she usually used short simple sentences, she added questions which she answered before the reader could respond to them (see Figure 4-29). Ted usually wrote a single sentence on a page, but often completed 5-7 pages each day (see Figure 4-11).

During the third segment, Alice, Laurel and Tagg each decreased by an average of 1 word per T-unit. Alice and Laurel both became interested in cursive writing, and as they concentrated on the formation of these new letters, the messages they wrote were often shorter though both girls used the same strategies found in the
Figure 4-28. Note, January 13 (Laurel, 6:6), photo-reduced.

(Dear Miss Milz,
Do you know I wish I was back in Hawaii, but I still missed you a lot? Do you know we saw where some of the volcanos [are]? We took movies of them, but all the good ones didn't turn out. Love, Laurel)
Figure 4-29. Journal, January 10 (Vikki, 6:4), photo-reduced.

(I like you David S. Do you David B? I do. Yes, I do like David S., Vikki. I like Miss Jones.)
previous segments. Tagg continued to form compound sentences by joining two simple sentences with AND (see Figure 5-46). Each piece of writing by Tagg usually contained several T-units with cohesive ties, and some sentences contained up to 4 dependent clauses with embedded infinitive clauses as well (see Figure 5-56).

Vikki used short simple sentences or questions during most of segment 3. She wrote up to 12 T-units on a page as she continued to use formulaic patterns, changing only 1 or 2 words in each sentence, with I LIKE lists being the predominant pattern (see Figure 4-30).

Scott and Ted exhibited the greatest changes in the last segment. Scott began many pieces of writing with I LIKE statements. These statements were followed by second person explanations to involve the reader. On April 10, he was able to add a third person pronoun to refer back to his reference to sharks (see Figure 4-31). Each entry usually had 3 or more T-units with cohesive ties from one T-unit to the next. Ted began the third segment with a 2-page story about a car salesman. In this story he wrote compound sentences using but and and as connectives, HE S LD CARS PD HE GT SE K ND THE DR KAM (He sold cars but he got sick and the doctor came). He produced contractions, KED ED (couldn't), though they were still invented forms (see Figure 4-32). He used a game format with an implied subject FID WR THE THSZ (Find where the tree house is.) (see Figure 4-33).

Table 4-10 summarizes the various strategies used by the six subjects as they combined various elements to create units of meaning. Throughout the study the children used various strategies at different points in time. All six subjects were able to produce a simple
I like Julie.
I like David B.
I like Brian.
I like David S.
I like Scott J.
I like Scott A.
I like Matt.
I like Mrs. Di Giulio.
I like Miss Milz.
I like Tagg.
I like Jon.
I like Brad.

Figure 4-30. Journal, April 22 (Vikki, 6:8), photo-reduced.
Figure 4-31. Journal, April 10 (Scott, 6:10), photo-reduced.

(I like Grand Cayman. You see a lot of pretty things in the ocean and a lot of mean things too like sharks. They can bite.)
(One day there was a man who liked cars. He had lots of cars. He sold cars but he got sick and the doctor came and said he couldn't sell cars. He wanted to sell cars. He was sad. And the next day he could sell cars. He was happy. He sold twenty cars. Now he was very happy. He studied everything about cars. The end.)
Figure 4-33. Journal, April 27 (Ted, 6:8), photo-reduced.

(Find where the tree house is.)
Table 4-10. All subjects: syntactic strategies used in three segments.

<table>
<thead>
<tr>
<th></th>
<th>First Segment</th>
<th>Second Segment</th>
<th>Third Segment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple Sentences</td>
<td>L S A Ta V Te</td>
<td>L S A Ta V Te</td>
<td>L S A Ta V Te</td>
</tr>
<tr>
<td>Compound Sentences Joined by And or But</td>
<td>L S Ta Te</td>
<td>L S A Ta</td>
<td>L S A Ta Te</td>
</tr>
<tr>
<td>Complex Sentences-Dependent Clauses Using Because/When/Like</td>
<td>L S A Ta Te</td>
<td>L S A Ta</td>
<td>L S A Ta V Te</td>
</tr>
<tr>
<td>Questions</td>
<td>S A V</td>
<td>L A Ta V</td>
<td>L S A Ta V</td>
</tr>
<tr>
<td>Requests/Commands</td>
<td>S V</td>
<td></td>
<td>L A Te</td>
</tr>
<tr>
<td>Contractions</td>
<td>L A</td>
<td>L A Ta Te</td>
<td></td>
</tr>
<tr>
<td>Items in a Series</td>
<td>A</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Use of Person:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First</td>
<td>L S A Ta V Te</td>
<td>L S A Ta V Te</td>
<td>L S A Ta V Te</td>
</tr>
<tr>
<td>Second</td>
<td>S V</td>
<td>L S A Ta V Te</td>
<td>L S A Ta</td>
</tr>
<tr>
<td>Third</td>
<td>L Te</td>
<td>L S Ta</td>
<td>L S A Ta V Te</td>
</tr>
</tbody>
</table>

* L = Laurel  
S = Scott  
A = Alice  
Ta = Tagg  
V = Vikki  
Te = Ted
sentence from a first person perspective. This was reflected in the number of notes and journal entries which were written in this classroom. All but Vikki were using complex sentences during the first segment, but by the final segment all were able to control this structure.

First grade writing can be described developmentally by T-unit analysis. These trends are best seen over longer periods of time—for example, to compare development for a group of children between grade levels. However, in looking at individual variation, other information is required to gain a clear picture of syntactic development. After looking at the actual writing done in the three segments by the six subjects, it is clear that care must be taken not to overgeneralize developmental findings on the basis of figures for words per T-unit alone. The six children used various strategies at different points in their development, and it becomes difficult to define the highest or lowest levels of maturity at any given time in first grade. Many factors influence use of specific syntactic features in addition to development, such as personal interest, the content and function of the writing, what other children may be writing, influences of patterns found in literature written for children, use of resources such as open-ended sentence cards, help received from interested adults, as well as an attempt to get a response from the intended audience.

Use of Conventions of the Writing and Spelling Systems

The developing control of the surface features of the writing system by the six subjects is presented in this section. Conventions
of word boundaries, linearity and directionality, utilization of space, letter size, lowercase and capital letter usage, spelling and punctuation are described.

**Word Boundaries.** When the study began, all subjects were aware of the use of spacing between words to establish definite word boundaries. Four of the children (Laurel, Scott, Alice and Vikki) used distinct spacing as they generated their own writing throughout the entire study. Two of the children, Tagg and Ted, used conventional spacing as they copied a news item from the chalkboard, copied from a story starter card, or wrote with the assistance of nearby persons. When generating writing independently, Tagg and Ted's use of word boundaries became less conventional.

Tagg's awareness of spacing is evident in his first writings at school. His growing control is described in detail in Chapter 5. After September 29, Tagg established definite boundaries around each word even if the word was represented by only one letter (see Figure 5-48).

Ted's writing displayed the most developmental change during the period of the study. During the first month, Ted copied news items from the chalkboard using conventional word boundaries (see Figure 4-22). On September 28, he wrote IHENES DAE (I had a nice day) with the only spacing occurring as he completed the first line, and returned to the left margin (see Figure 4-23). In another entry on that same day he circled each word unit, I LKE FEA MLE (I like my family). He separated family, the only multi-syllable word, into two distinct units (see Figure 4-34). The next day he omitted the circles, but placed
Figure 4-34. Note, September 28 (Ted, 6:1), photo-reduced.

(I like my family.)
spaces between several of the words, I G E NKR E EDBL (I got a new car. It is dark blue), even though most were represented by only one letter of the conventional spelling (see Figure 4-35). On October 5, Ted used three distinct spaces between his words E HEB E NANE SMR NEE (It has been a nice morning). Two spaces occurred as he reached the right margin and returned to the left side of the paper. One of the spaces between NE and SMR is especially noteworthy in that it is related to the oral communication of this smorning heard in oral speech in this community. Again he separates the only two-syllable word in his message (see Figure 4-36).

During the middle and final segments, Ted increased his use of conventional word boundaries. He usually defined distinct words conventionally, even though he used invented spellings to represent the majority of his words (see Figure 4-37). As Ted began to use more conventionally spelled words within his writings, these words were placed in distinct units, DEAR, LIKE, THE with no spaces within them. The spaces found in LET Z (letters) and N S (nice) may indicate a growing awareness that there were letters that could be placed within the spaces, but he was not sure which ones, while LAQ (thank you) and CTS (cactus) reflect his satisfaction that the invented spelling represented the way the words sound to him (see Figure 4-16). Later in the school year when Ted wrote the same words in his note of April 22, he separated thank you into two units (T Q) and wrote the conventional form of cactus—probably asking for help or finding the word written in a chart near the science area where the gift cacti were placed (see
(I got a new car. It is dark blue.)
It has been a nice morning. Love, Ted
Figure 4-37. Journal, January 12 (Ted, 6:4), photo-reduced.

(I got a coloring game.)
Figure 4-38). This may reflect a growing awareness of the graphic appearance of the two printed words.

Most of the six subjects already controlled word boundaries when they came to first grade. Ted, who had the least experience with writing before the study began, developed control gradually during the year.

*Linearity and Directionality.* When the six subjects began to write in a first grade setting, all were able to use appropriate directional movements in English from left to right with a return sweep back to the left-hand position under the starting point. Once they finished one line of writing, they were able to continue with a top-to-bottom pattern.

Ted was able to apply these principles even as he wrote around his haunted house drawing. He began at the top and turned the page as he continued along each section in a left-to-right direction (see Figure 4-39).

On April 22, Ted was confronted with a drawing that was too large to contain his message. He used the left-to-right principle on the first line, IRD MI B (I rode my b), and completed his sentence, K IN PB IY (ike on Peabody) on the left side of the house, moving downward. He then remembered the date, and placed it as near to the top as possible, though he went from bottom to top along the right margin for the only time during the 1000-word sample (see Figure 4-40).

Evidence was found that children deliberately varied the left-to-right directional pattern when they believed the conventional pattern did not represent actual oral speech. These examples involve
Dear Dr. Allen,

I like our letters. They are nice and thank you for the cactus. I like it.

Love,

Ted

Figure 4-38. Note, April 22 (Ted, 6:8), photo-reduced.

(Stef Dr. Allen.

I like our letters. They are nice and thank you for the cactus. I like it.

Love,

Ted)
Figure 4-39. Journal, January 25 (Ted, 6:5), photo-reduced.

(I like haunted houses because they are scary. The ghosts go boo.)
Figure 4-40. Journal, April 22 (Ted, 6:8), photo-reduced.

(I rode my bike on Peabody. April 22)
drawings with speech bubbles proceeding from a speaker's mouth. If the speaker faced left, the child wrote the message in a right-to-left direction, IH, while it was written from left to right if the speaker faced the right side of the page, HI. The children apparently felt that the I should not come out of the mouth first if the character spoke while facing the left side of the paper. Thus, they deliberately chose the right-to-left pattern when writing the words in the speech bubble (see Figure 4-68).

Writing from left to right and from top to bottom was controlled by all six subjects. During the study the children attempted to use these principles even as they tested the limits while writing a message around pictures which they had drawn, or deliberately chose a non-conventional pattern to represent a perceived speech-to-print relationship.

Utilization of Space. Although the six subjects used similar materials for writing, each filled the available space in unique ways that suited the writer's purposes. The only characteristic which the six children shared most of the time was to try to fill a page from top to bottom. Even as a note was written and the message completed, evidence of this page-filling principle often could be seen by a large signature across the lower portion of the paper, as Scott did in Figure 4-27. Table 4-11 summarizes the subjects' use of space as they learned to control it on their paper.

Differences in determining how to use the space on a piece of paper were evident in the writings of the six subjects. Laurel used every line on a ruled page in the first two segments, although she did
Table 4-11. All subjects: use of space within pieces of writing.

<table>
<thead>
<tr>
<th></th>
<th>First</th>
<th>Second</th>
<th>Third</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laurel</td>
<td>Filled pages with several entries using every line.</td>
<td>Filled page with several entries using every line.</td>
<td>Filled page using alternate lines.</td>
</tr>
<tr>
<td>Scott</td>
<td>Filled over half of a page with several entries using alternate lines. Teacher-recorded dictation on some pages.</td>
<td>Filled page with text or text/picture combination using alternate lines for text.</td>
<td>Filled page with text or combination of text/picture using alternate lines for text.</td>
</tr>
<tr>
<td>Alice</td>
<td>Writing placed at top of page using consecutive lines. Accompanying picture or empty space at the bottom of page.</td>
<td>Filled page with text using every line. Pencil lines drawn between multiple entries.</td>
<td>Filled top half of page using successive lines with empty space or accompanying picture at bottom.</td>
</tr>
<tr>
<td>Tagg</td>
<td>Filled page with multiple entries using every line. During second month began to use alternate lines with pencil lines to divide entries.</td>
<td>Filled page using alternate lines. Pencil lines drawn between entries.</td>
<td>Used center or right half of page so only 3-4 words fit on a line. Alternate lines used from top to bottom of page.</td>
</tr>
<tr>
<td>Vikki</td>
<td>Single words gradually increasing to short sentences with related drawings.</td>
<td>Filled pages with text using alternate or every third line, and a drawing (not always related to text).</td>
<td>Filled page with short text to describe a related picture. Several entries separated by pencil lines.</td>
</tr>
<tr>
<td>Ted</td>
<td>Top of page or full page with large letters forming text. Drawings accompanying text in many pieces of writing.</td>
<td>Writing at top of page following bottom guide-lines while using alternate lines. Large related drawing to accompany text.</td>
<td>Full pages of text using alternate lines with small picture in lower corner, or several short related drawings on a page.</td>
</tr>
</tbody>
</table>
begin to use alternate lines during the last segment. (This was suggested by the teacher as a way to avoid crowding of the message, as well as to allow the writer to add to the original text.) She usually placed 3-4 entries on a page (see Figure 4-24). Few drawings accompanied her writings.

Scott filled every page with multiple entries, but used alternate lines for the text (see Figure 4-25). He frequently accompanied his writing with drawings.

Alice wrote using every line on the top half of a page. She had the most empty space on a page, and tended to begin a new piece of writing on a fresh sheet of paper, except during the second segment when she used pencil lines across a page to separate the entries (see Figure 5-9).

Tagg filled every page during the first month of the study with multiple entries using every line, seldom placing a drawing with his text. At the end of his first journal page he began to erase and write a new message at the bottom of the page (see Figure 5-39). During the second month he moved to the use of alternate lines, thus eliminating the crowded appearance of his writing (see Figure 5-40). Pencil lines were used in January to separate the entries. During the third segment he began to write down the center of the page or on the right half, yet he usually filled the page from top to bottom (see Figure 5-58). No requirement to fill the page existed in the classroom, and Tagg could have written his message at the top or in the remaining portion of a page. There could have been an element of competition as another child completed a page or a notebook, and Tagg also wanted to fill the pages
so that he could take his own notebook home sooner. This could have been a strategy to reach the bottom of the page as quickly as possible, as he wrote fewer words on each line.

Vikki liked to fill the entire page, even utilizing drawings to fill the space below her text. She increased the text from simple descriptive words to short sentences during the first segment, usually filling the page (see Figures 4-41 and 4-42). During the second segment, drawings were still occasionally used to fill space but did not always relate to the text, although they did in the first and third segments.

Ted wrote large letters to form his early messages (see Figure 4-11). Later related drawings were made to accompany the text, or became an integral part of the message. A single entry usually was placed on a page (see Figures 4-39 and 4-40).

Each of the six subjects filled a page in their own individual ways. The children became aware of guidelines found on notebook paper, and many moved to using alternate lines as they filled a page. This allowed them to add to the original writing, as well as giving their writing a less crowded appearance. When using unlined paper, they continued to use the space by placing words and pictures in the same way as they did on the lined notebook paper.

Size of Letters. The children in the classroom used a wide range of letter sizes from 1/8" to 3" high, as they wrote using assorted kinds of paper which were made available for their use (see Methodology section, Chapter 3). They were not limited to the traditional paper that requires 1" high spacing for capitals or tall
Figure 4-41. Journal, September 10 (Vikki, 6:0), photo-reduced.

(Vikki)
I love you, Mom

I love you, too.
from Miss Milz

Figure 4-42. Journal, October 4 (Vikki, 6:1), photo-reduced.

(October 4, 1976, I love you, Mom)
lowercase letters, and 1/2" guidelines for other lowercase letters. This paper was used with the subjects occasionally when instruction in letter formation was deemed necessary. Inasmuch as larger letters were formed slowly, they provided more detail as the child was learning. However, this letter size and the corresponding paper was seldom chosen by any child in other than instructional writing settings. Instead, newsprint, note paper, and a notebook containing blue guidelines of 5/16" were chosen most consistently by the subjects, and the size of the child's writing was self-adjusted to suit individual purposes.

During the period of the study, Laurel, Scott, Alice and Tagg used letter sizes that were appropriate to the 5/16" guidelines provided in the spiral notebook. This letter size was usually used even on blank paper with no guidelines, although Scott and Tagg did use 1" letters in several notes they wrote to their teacher during the first segment (see Figures 3-10 and 5-33). Within the framework of the 5/16" guidelines, individual variation could be seen over the three segments. Laurel, Scott, Alice and Tagg used the entire space to form both capital and lowercase letters to begin the first segment. Both forms used by Laurel were similar in size: I am (see Figure 4-24). They gradually began to distinguish the size difference in these capital and lowercase forms if the forms were distinctly different (Ee, Rr). However, similar capital/lowercase forms (Pp, Kk, Oo, Ww) presented letter size difficulty to most of the children during the entire year. During the second segment Alice and Laurel decreased their lowercase size to 1/8" while forming capital letters at about 1/4". Scott and Tagg distinguished lowercase and capital letters by
size, but did write correspondingly larger letters (1/4" and 5/16"). Scott, Alice and Tagg continued these respective sizes to the end of the study, but Laurel increased the size of her letters to 1/4" and 5/16". During the last segment, Laurel and Alice also experimented with cursive forms. Both increased the letter size to use more of the 5/16" space between the guidelines (see Figure 4-43).

Vikki and Ted reflected a more dramatic change in the size of their letters over the three segments. Both used lined notebook paper but ignored the lines as they wrote during the first segment. Vikki's first letters were 3/4" to 1-1/2" high, while Ted's ranged from 3/4" to 3" (see Figures 4-44 and 4-45). Ted used capital forms most of the time, but his lowercase choices were smaller in size. Vikki used more lowercase letters, but frequently made them as large as the capitals (see Figure 4-18). During the second segment, both children utilized the guidelines. Vikki wrote within the 5/16" space, although some lowercase letters still were formed as large as the capital letters (m, p). Capital letters (I, S) could usually be distinguished from the lowercase forms (see Figure 4-46). Ted's writing followed the lower ruled guideline, but ranged from 1/2" to 1" in height. He still used capital letters most of the time, but he also used isolated lowercase letters that were usually similar in size to the capitals (see Figure 4-47). During the last segment, Vikki usually wrote within the 5/16" guidelines using the 5/16" space for capitals and 1/4" for lowercase. Ted also utilized these guidelines, only occasionally making 1/2" letters. He used more lowercase letters and usually wrote these about 1/4" high (see Figure 4-19).
(Dear Dr. Goodman,
I haven't seen you for a long time. Do you know I can write in cursive? I don't remember when I learned. Have fun.
Love, Laurel)
Figure 4-44. Journal, September 16 (Vikki, 6:0).

(Love, Vikki. I like you.)
Figure 4-45. Journal, September 30 (Ted, 6:1), photo-reduced.

(I am going outside. I go to school and I had a nice day. p. 6)
I like my Snoopy Soaper.
It is nice to me too.
I like my Snoopy toothbrush.
I like my Snoopy.

Figure 4-46. Journal, January 3 (Vikki, 6:4), photo-reduced.

(I like my Snoopy Soaper.
It is nice to me too.
I like my Snoopy toothbrush.
I like my Snoopy.)
Dear Miss Milz,
I like you. I hope you like me. Love, Ted

Figure 4-47. Note, January 31 (Ted, 6:5), photo-reduced.

(Dear Miss Milz,
I like you. I hope you like me. Love, Ted)
During the study, letter size was determined by the individual subject—not by the teacher or by a particular kind of lined paper. Though many kinds of paper were available, the children did use lined paper with 5/16" guidelines the majority of the time, and it did influence letter size over the year. Four of the children (Laurel, Scott, Alice and Tagg) wrote using a letter size appropriate to the 5/16" guidelines, and gradually during the year Vikki and Ted changed the size of their letters. By the time the study closed, all six subjects were writing using a letter size appropriate to this paper, although capital and lowercase letters were similar in size in many instances.

**Capital and Lowercase Letters.** The six subjects all were familiar with capital and lowercase letter forms when the study began. They could print most of the manuscript forms, with only a few letters such as $\mathcal{S}$ and $\mathcal{g}$ presenting minor difficulty. During the year, Alice, Laurel, Scott and Ted also experimented with cursive letter forms.

During the study all of the children used capital letters, when capitals were called for, the majority of the time. This finding is masked by the fact that the subjects used capital letters more overall than lowercase and therefore used them in many places where capital letters were not appropriate. As they realized the need for lowercase letters in medial or final positions of a word, the subjects then

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1. In this section the child's examples in the text are written using the capital or lowercase form rather than all capitals, as used in the remainder of the text.
overgeneralized and began to use lowercase letters in the initial position also, even if they were starting a sentence or writing a proper name. Scott had used capital letters to begin a sentence as well as a proper name. Although on April 29 he used capitals to begin the month and the opening sentence, he had erased the cross-bar for the lowercase T, reflecting his uncertainty at the time (see Figure 4-48).

Figure 4-49 summarizes this decrease in the conventional use of capital letters by all subjects, except for the increased conventional usage by Laurel during the third segment, and Alice during the second segment. Again it becomes obvious that looking at a single feature in writing in terms of development can be misleading. The decrease of conventional use of capitals does not indicate regression in development. What it does suggest is that as children develop control over the lowercase form, and write more complicated and varied forms and functions, this interacts with the choices they need to make in terms of capitalization.

During the period of the study, Laurel, Scott, Alice and Vikki used lowercase forms conventionally the majority of the time. After the first segment, Tagg also used these letters in a highly conventional manner. Ted placed capital letters in many lowercase positions during the entire year.

All of the children tended to make capital and lowercase letters the same size when they began to write in first grade. During the first weeks of the study they began to make the lowercase forms smaller in size. However, letters with similar forms such as Kk, Ww, and Ss, still were often produced in the larger capital form, and thus
Figure 4-48. Journal, April 29 (Scott, 6:10), photo-reduced.

(This is a big fish. It is in the ocean where sharks are in it.)
Figure 4-49. All subjects: conventional use of capital letters.
presented difficulty during the entire period of the study. Even though several of the letters in \textit{I am glad} still are written in the larger size, they are distinguishable at this time as lowercase because of the difference in the forms used to represent capital and lowercase letters (see Figure 4-50).

Capital letters were used in places where voice inflections might naturally emphasize a particular word or words, or where the meaning of the word or words might take on special significance (see Figure 5-60). Another place where capital letters were used in lowercase positions was at the beginning of each word, rather than only to begin a sentence or to capitalize a proper name (see Figure 4-51).

Ted and Tagg both began their initial pieces of writing using all capital letters, except when they copied a news item from the chalkboard, or a sentence starter from a card. These copied sentences or phrases showed lowercase and capital letters just as in the original message. When they generated their own messages, they used all capital letters (see Figure 5-39). Tagg changed very rapidly to more conventional use of lowercase letters, while Ted preferred to use a larger proportion of capital letters all year.

During the third segment, Laurel began to experiment with the cursive forms of letters. At this time she returned to using many capital letters which she joined together, although her manuscript letters used in notes and journal entries were largely appropriate lowercase forms (see Figure 4-43).

Figure 4-52 shows the usage of lowercase letters by the six subjects during the three segments. Tagg's dramatic change from a
January 3, 1979

Tonight we are going to take down the Christmas tree. It will be fun. I will take some down. I am glad. Machele will be glad too.

Figure 4-50. Journal, January 3 (Scott, 6:6), photo-reduced.

(Tonight we are going to take down the Christmas tree. It will be fun. I will take some down. I am glad. Machele will be glad too.)
Figure 4-51. Journal, April 29 (Laurel, 6:10), photo-reduced.

(My dad has to go back to North Carolina. He is going to the same hotel and same place. He is going to almost every place he went before.)
Figure 4-52. All subjects: conventional use of lowercase letters.
large use of capitals in lowercase positions to highly conventional usage of lowercase letters is reflected in the percentages. Ted's copying of conventionally written news items shows in his higher percentage of lowercase letters during the first segment, while he uses more capitals in the second and third segments, which are self-generated. Throughout the study, he always used some lowercase letters, especially in his name and in words which he wrote frequently: Dear (Dear), like (like), our (our, are), End (and) (see Figure 4-16).

All subjects were aware of the two forms of letters—lowercase and capital. They were able to copy the forms conventionally from print found in the classroom. Throughout the study all of the children used capitals when called for for the majority of the time, though this was masked by the fact that capitals were used overall more than lowercase letters. As children became aware of the need for more lowercase letters, they began to use them even in places where capitals were called for. When size was the only difference between lowercase and capitals (Pp, Oo), it was difficult to distinguish which form the child intended to use. Both capitals and lowercase were often produced in the larger size, thus only allowing a form like Ee or Rr to be clearly identified, suggesting a preference for the use of capitals. As beginning consumers and producers of print, the children noted that many of the items present in their environment, STOP, GIRLS, BOYS, etc. utilized the capital form to emphasize the message. This could be a possible influence as the subjects used this form in their own production of writing. It is interesting to note how Laurel returned to using capitals as she began to write in cursive (see Figure 4-43).
Spelling. Each of the six subjects began this study with an awareness of the rule-governed nature of spelling found in the English language. When given a notebook on the first day of school and asked to write, they were all able to claim ownership by spelling their first name at the top of the page. They were also aware that letters were used to write, and that certain combinations of letters formed a particular word. Scott and Ted each listed the twenty-six letters of the alphabet. Vikki, as well as Scott, copied words such as STOP and WALK, which were found on various traffic signs displayed on a classroom bulletin board (see Figure 4-53). Names of family members were written by Vikki and Laurel. Although no help was given with this first classroom writing activity, every word was conventionally spelled. The children used their own developing knowledge as well as classroom resources as they first attempted to spell. Within days it was apparent that the children were asking both the teacher and other adults in the classroom or at home for assistance in spelling in order to write a particular message (see Figure 5-39). A common question was "How do you spell it?", indicating their awareness that there must be rules to the spelling system.

The first pieces of writing produced by each of the six children contained nearly all conventional spellings. This was in contrast to the first messages spelled by Bissex's son Paul (1980, p. 3), RUDF (Are you deaf?) or PAULSTMLENMBR (Paul's telephone number). The children also did not produce the strings of letters or letter forms which were observed by Bissex several months previous to these messages (1980, p. 4). This could be partially explained by the age
Figure 4-53. Journal, September 8 (Vikki, 6:0), photo-reduced.

(Vikki Stop Peter
Walk Don't Walk
T.V. Mom Dad Larry)
difference. Paul was 5:1, while these children were 6:0-6:2. It was also likely that school instruction played a role in these early classroom spellings of the six subjects. During an interview with the subjects' kindergarten teacher, she mentioned that she stressed correct spelling as she demonstrated how to write each letter in a word during her lesson each day. The children may have formed the concept during these lessons that words are spelled in a certain way and that specific letter patterns form a particular word. School writing, until they entered first grade, consisted of isolated, conventionally spelled words and was thus reflected in these first samples. When they started the first grade, the children responded to notes or wrote in their journals about personal happenings in their lives. They were always encouraged to write independently. At this point, they began to use invented spellings similar to those collected by Read (1975), Beers and Henderson (1977) and Bissex (1980). They chose the words needed to produce the messages they wished to communicate. Ted used the most varied vocabulary, using 317 different words in his 1000-word sample. He also had the lowest percentage of conventionally spelled words. Laurel, who wrote the most during the entire year (10,889 words), was the most conventional speller (88%). The three boys used a larger percentage of invented spellings than the three girls. It is difficult to tell if this was a result of the fact that they wrote about half the overall amount that the girls did and thus did not create the opportunities to use certain words over and over again. It is also possible that they were greater risk-takers in their wish to
communicate. Table 4-12 summarizes the percentage of conventionally spelled words used in the thousand-word sample.

The six children displayed strategies which suggested the nature of their developing knowledge of the spelling system. Each was able to place vowel and consonant letters to represent sounds from the start of the study, and they did not substitute one in place of the other, although sometimes the needed vowels or consonants were omitted as when Tagg wrote I WD BATOEMR (I would be able to see more) (see Figure 5-47).

As the children wrote in the classroom and at home, certain words began to appear in conventionally spelled forms, although other words in a piece of writing were in invented forms. Ted wrote his name and the word LOVE conventionally while also writing E HEB E NANE SMR NEE LOVE TED (It has been a nice morning, Love, Ted.) (see Figure 4-36).

**Development of Conventionally Spelled Words**

It became obvious that a conventionally spelled, high-frequency vocabulary of words that were important to the children in this classroom environment was emerging. The subjects wrote many notes to the teacher which necessitated the use of an opening Dear Miss Milz as well as the ending Love. Each journal entry was dated so that the children used the name of the month on a daily basis during that month. Thus, the words Miss, April, Milz, January and Love became high-frequency words in this particular classroom. The children also used structure words such as is, and, the, a, and to as well as pronouns such as I, it, my, he, you, and me, which are used frequently in the English...
Table 4-12. All subjects: percent of conventional spelling of different words used in the thousand-word sample.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Different Words</th>
<th>Conventionally Spelled Words</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laurel</td>
<td>302</td>
<td>267</td>
<td>88</td>
</tr>
<tr>
<td>Scott</td>
<td>283</td>
<td>119</td>
<td>42</td>
</tr>
<tr>
<td>Alice</td>
<td>261</td>
<td>194</td>
<td>74</td>
</tr>
<tr>
<td>Tagg</td>
<td>258</td>
<td>169</td>
<td>66</td>
</tr>
<tr>
<td>Vikki</td>
<td>201</td>
<td>154</td>
<td>76</td>
</tr>
<tr>
<td>Ted</td>
<td>317</td>
<td>70</td>
<td>22</td>
</tr>
</tbody>
</table>
language. It is interesting to note that he is a pronoun of higher frequency than the corresponding she in this classroom, just as it is ranked higher on other high-frequency word lists (Carroll, 1971; Horn, 1926). The use of journals and note writing caused the use of personal pronouns, as well as words such as like and nice. Hillerich (1978) reported a vocabulary ranked by use in the creative writing of first to sixth graders. The eleven structure words and personal pronouns used by these first graders were all in the top 20 words of his listing. Table 4-13 shows the top 20 words used by the six children in their thousand-word samples. For each subject the rank order of each word is shown. These words represent 44% of the 6000-word merged total.

As the children used the same words over and over again, a definite movement toward conventional spelling could be traced. Ted, for example, used and 24 times during the sample. He began with E and gradually moved to and. The progression is as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>Word</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/30</td>
<td>E</td>
<td>END</td>
</tr>
<tr>
<td>10/5</td>
<td>N</td>
<td>4/21 AND (2 times)</td>
</tr>
<tr>
<td>3/30</td>
<td>N (2 times)</td>
<td>ND</td>
</tr>
<tr>
<td>ND (4 times)</td>
<td>4/22 END</td>
<td></td>
</tr>
<tr>
<td>AD</td>
<td>4/25 AND, NAD</td>
<td></td>
</tr>
<tr>
<td>4/1</td>
<td>N</td>
<td>4/26 NAD</td>
</tr>
<tr>
<td>4/18</td>
<td>NAD (5 times)</td>
<td>4/28 AND</td>
</tr>
</tbody>
</table>

As Ted used and in his daily language while speaking or reading, he internalized important features and gradually gained control of the conventional form. His move toward conventionality
Table 4-13. All subjects: ranked list of high-frequency words (used more than 50 times).

<table>
<thead>
<tr>
<th>Rank</th>
<th>Merged Word List</th>
<th>Times Used</th>
<th>Laurel</th>
<th>Scott</th>
<th>Alice</th>
<th>Tagg</th>
<th>Vikki</th>
<th>Ted</th>
<th>Number of Subjects to Rank Word in Top 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I</td>
<td>538</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>LIKE</td>
<td>314</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>YOU</td>
<td>196</td>
<td>5</td>
<td>8</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>IS</td>
<td>183</td>
<td>8</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>15</td>
<td>6</td>
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<td>4</td>
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<td>73</td>
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<td></td>
<td>13</td>
<td>8</td>
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<td></td>
<td>3</td>
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<td>10</td>
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<td>16</td>
<td>12</td>
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<td>5</td>
</tr>
<tr>
<td>13</td>
<td>LOVE</td>
<td>72</td>
<td>7</td>
<td></td>
<td></td>
<td>8</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>14</td>
<td>ARE</td>
<td>64</td>
<td>12</td>
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<td>17</td>
<td>15</td>
<td></td>
<td>19</td>
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<tr>
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<td>58</td>
<td>12</td>
<td></td>
<td>15</td>
<td></td>
<td>19</td>
<td></td>
<td>3</td>
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<td>16</td>
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<td>13</td>
<td></td>
<td>20</td>
<td>4</td>
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<tr>
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<td>NICE</td>
<td>56</td>
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<td></td>
<td>11</td>
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<td></td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>18</td>
<td>DO</td>
<td>55</td>
<td>13</td>
<td></td>
<td>19</td>
<td></td>
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<td>3</td>
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<tr>
<td>19</td>
<td>HE</td>
<td>54</td>
<td>11</td>
<td></td>
<td>15</td>
<td></td>
<td>17</td>
<td>11</td>
<td>4</td>
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<tr>
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<td></td>
<td></td>
<td>14</td>
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<td>2</td>
</tr>
<tr>
<td>20</td>
<td>ME</td>
<td>50</td>
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</table>

Number of Top 20 Frequency Words Shared with Other Subjects

<table>
<thead>
<tr>
<th>Laurel</th>
<th>Scott</th>
<th>Alice</th>
<th>Tagg</th>
<th>Vikki</th>
<th>Ted</th>
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<tr>
<td>13</td>
<td>13</td>
<td>17</td>
<td>16</td>
<td>14</td>
<td>12</td>
</tr>
</tbody>
</table>
shows this growing control. First the word is represented by a single letter, then to two or three letters. As he develops control over the number of letters and the form each letter takes, Ted also experiments with the order of letters before he settles on the conventional form. It is important to notice that there is a movement toward conventionality—not immediate control—then some movement away before control is conventionalized.

The same top 20 words were used frequently by the six children. Even with the occasional occurrence of invented spellings, these words were spelled conventionally the majority of the time. They were each used more than 50 times by the entire group, and each was spelled conventionally 77% or more of the time during the study. Figure 4-54 lists the top 20 words and shows the percentage of conventional use by the six children.

However, as each child reached out to create written language in the form of a new word needed to convey a meaning, invented spellings common to other young writers could be especially noted. It is here that Read's (1971, 1975) seminal work in the categorization of speech sounds in young children's spelling can be applied. Beers and Henderson (1977), Gerritz (1975) and Bissex (1980) also looked at whole pieces of children's writing in classroom and home setting and have supported and extended Read's pioneering research.

Read (1975) demonstrated that children rely heavily on their knowledge of English sounds and the articulatory system as they begin to write. He suggests that children use the names of letters and not just the sounds they represent. Ted used this strategy to represent
<table>
<thead>
<tr>
<th>Words Used Over 50 Times</th>
<th>0</th>
<th>25</th>
<th>50</th>
<th>75</th>
<th>100</th>
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<tbody>
<tr>
<td>A (163)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>96</td>
</tr>
<tr>
<td>AND (166)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>81</td>
</tr>
<tr>
<td>APRIL (73)</td>
<td></td>
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<td></td>
<td>95</td>
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<tr>
<td>ARE (64)</td>
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<td>80</td>
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<td>DEAR (58)</td>
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<td></td>
<td>100</td>
</tr>
<tr>
<td>I (538)</td>
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<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>IS (183)</td>
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<td></td>
<td></td>
<td></td>
<td>94</td>
</tr>
<tr>
<td>IT (112)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>88</td>
</tr>
<tr>
<td>JANUARY (57)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>95</td>
</tr>
<tr>
<td>LIKE (314)</td>
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<td></td>
<td></td>
<td>95</td>
</tr>
<tr>
<td>LOVE (72)</td>
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<td>99</td>
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<tr>
<td>ME (50)</td>
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<td></td>
<td>96</td>
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<tr>
<td>MILZ (50)</td>
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<td>98</td>
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<tr>
<td>MISS (73)</td>
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<tr>
<td>MY (92)</td>
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<td>87</td>
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<tr>
<td>NICE (56)</td>
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<td>77</td>
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<td>THE (89)</td>
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<td></td>
<td>98</td>
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<tr>
<td>TO (141)</td>
<td></td>
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<td></td>
<td></td>
<td>89</td>
</tr>
<tr>
<td>YOU (196)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>94</td>
</tr>
</tbody>
</table>

(actual times used in merged list)

Figure 4-54. Percent of conventionality of high-frequency words.
our (see Figure 4-55) and are (see Figure 4-56) with R. Both words are usually pronounced as the letter name in this community. He also ended thank you in a similar fashion when he used the Q to represent the sound he said orally (see Figure 4-16). Scott used a more sophisticated variation of this strategy the week after the study ended as he attempted to write enemy and chose to use two letter names, the N to represent the first syllable and the E in the final syllable (see Figure 4-57).

In representing vowel sounds, Read (1975) found that the children were able to draw relationships to the closest letter name. For example, in determining the needed long vowels Ted chose the letter name of o in GO (going) as well as ee in HLW EEN (Halloween) (see Figure 4-58). In representing the short vowels, Read (1980, p. 145) noted children spell them with the letter used for a phonetically corresponding long vowel—that e in "bet" is articulated more like the letter name a than e. This substitution is the most common classification used by the young writers who Read has studied. Similarly, short i as in it or in is more like the letter name e than i (Read, 1975). The use of e for i was frequently used by the children in this study. Ted wrote EE GEN (It is growing) (see Figure 4-16). Beers and Henderson (1977) report that some children also make short vowel substitutions instead of the letter name, thus producing that as THET. This strategy was also employed by Ted as he wrote and as END (see Figure 4-16).

Another feature discovered by Read (1975) is the tendency for beginning writers to omit nasals—the m and n, just before consonants,
Figure 4-55. Journal, January 12 (Ted, 6:4), photo-reduced.

(We took [down] our Christmas tree.)
Figure 4-56. Journal, January 24 (Ted, 6:5), photo-reduced.

(I like clowns because they are funny.)
Figure 4-57. Journal, May 4 (Scott, 6:10), photo-reduced.

(A Stegosaurus can swing his tail when an enemy comes.)
E EGO TB

HLW EEN

Love

Ted

Figure 4-58. Journal, October 4 (Ted, 6:1).

(It is going to be Halloween.
Love,
Ted)
for example--because they are not articulated but instead resonant in the nasal passages just before the next consonant is articulated. Laurel, the subject whose spelling was usually conventional, used this strategy when she produced the contraction DID'T (didn't), although she placed the nasals in other words such as TRAMPOLINE (see Figure 4-59).

A considerable amount of homography was found in Read's (1975, p. 50) inventive spellers. BAT might represent, bat, bet or bait. This same phenomenon occurred in the writing of the six subjects. For example, Scott used NAME to represent both name and enemy (see Figure 4-57). Read noted that "this is a potential problem for the reader, not the writer."

Soon after the study began, the spellings of the six subjects could be read and understood by the researcher/teacher in the classroom. The spellings were never haphazard but instead reflected systematic logical decisions which differed from adult spellings. Yet later spellings reflected additional knowledge which brought them closer to conventional spellings. Even as words were used a single time during the school year, they reflected logical decisions based on growing knowledge of the English language. As Tagg wrote in his journal on April 5, he used invented spellings for SWIMING (swimming) and BUTTERFLYS (butterflies). He was able to add the ing ending, though he did not double the m, as well as add the s marker to denote the plural (see Figure 5-57). This reflected a tremendous change from October 4, when he was unable to use the plural form for ghosts or represent going with more than a g. Yet at that time Tagg was able to
(A true story. I didn't like it. I will tell you something: We were downstairs. They had a gymnastics mat and a trampoline. We saw a flashing red light. We ran upstairs.)

Figure 4-59. Journal, April 25 (Laurel, 6:10), photo-reduced.

We were downstairs. They had a gymnastics mat and a trampoline. We saw a flashing red light. We ran upstairs. We heard a mysterious noise. They were down stairs.

They had a gymnastics mat and a trampoline. We saw a flashing red light. We ran upstairs.

We were downstairs. They had a gymnastics mat and a trampoline. We saw a flashing red light. We ran upstairs.

A true story. I didn't like it. I will tell you something: We were downstairs. They had a gymnastics mat and a trampoline. We saw a flashing red light. We ran upstairs.

Tell you something. We were downstairs. They had a gymnastics mat and a trampoline. We saw a flashing red light. We ran upstairs.

Tell you something. We were downstairs. They had a gymnastics mat and a trampoline. We saw a flashing red light. We ran upstairs.

Tell you something. We were downstairs. They had a gymnastics mat and a trampoline. We saw a flashing red light. We ran upstairs.
find the word ghost in his classroom, and he knew that g was an important part of going. Although these words were only used infrequently, Tagg reflected a growing control in being able to use them as needed (see Figure 5-48). Spellings did not remain in a permanent invented form but reflected an emerging competence and a desire to use the spellings which would allow the children to communicate with an audience beyond the classroom walls.

Punctuation. During this study, the children found little need to use the conventional system of English punctuation. Punctuation marks were present in many places in the classroom: such as the comma in the date on the chalkboard, in notes written by adults, and especially in the books the children were beginning to read. As their writing increased in complexity, and possibly their reading competence as well, the children began to use some punctuation which aided the reader in understanding their messages.

Five categories of usage emerged as the children's writing was analyzed. The subjects used punctuation conventionally, misplaced punctuation marks, inserted punctuation in an unconventional setting or substituted another kind of mark. However, the largest category to emerge for all the subjects was to omit the use of punctuation (see Punctuation section, Chapter 3).

The subjects were able to utilize space, and place their words so that the lack of punctuation did not prove to be a deterrent to understanding the message. For example, Ted would place one sentence on a page in his early writing (see Figure 4-34). Later, as he wrote several sentences to make up a complete text, he still used a separate
page for each sentence but never used any punctuation (see Figure 4-11). This same strategy was used by Alice (see Figure 5-4), Vikki (see Figure 4-44), and Scott (see Figure 4-12) during the beginning months, although occasionally Alice attempted to place a few punctuation marks within her writing (see Figure 5-2). Tagg wrote single sentences but placed them all on one page, separating each entry with the current date (see Figure 5-39). If the date on the chalkboard had a comma, he would copy it though it floated above the usual space. It is interesting to look at two entries that Scott made on January 3. In the first piece of writing, Scott filled the page with a description of the anticipated removal of his Christmas tree. He placed 4 periods in conventional places (see Figure 4-50). Yet on the next page, as he wrote about the moon using only one sentence, he did not feel a period was necessary (see Figure 4-60).

At the beginning of the study Laurel was able to write approximately 6-7 sentences in a piece of writing. She placed periods in about half of the conventional spaces—sometimes in the middle of a line, or at the end of a piece of writing. As the year progressed, though she wrote more, she did not increase her use of punctuation. Several reasons might account for this. Punctuation aids the reader to a greater extent than it does the writer, and it is possible that Laurel, who was a proficient reader, did not read her journal entries or notes after they were written. Due to the need for first-draft writings for the research study, the children were asked to not go back and change any of their previous writings.
Figure 4-60. Journal, January 3 (Scott, 6:16).

(I like the moon.)

Jan 3

x - 3y = 7

moon

like the
Now, in the classroom taught by the researcher, as children look back in their journals to find items to read to their classmates at Sharing Time or to refresh their own memories, they are encouraged to add punctuation or make other changes which help them to read their entries more easily. With Laurel's understanding of the writing system, she might have profited from some discussion of the use of punctuation in her notebook.

Figure 4-61 shows that punctuation was omitted in the majority of instances where children had the opportunity to punctuate, even though the subjects expanded their opportunities to use the system by their increased writing.

Many opportunities existed for the children to use punctuation, but except for Tagg and Scott, each child used less than half the possibilities they created (see Table 4-14). Ten punctuation opportunities—the period, comma, question mark, exclamation point, quotation marks, apostrophe, hyphen, colon, ellipsis and dash—could have been used by the six subjects. Alice used the greatest variety of marks, producing them all except the dash. Laurel and Ted used the least. Both placed periods, commas and apostrophes in conventional places, while Laurel used question marks and Ted used a hyphen. All of the six children used periods and commas. Five out of six children also used question marks, apostrophes and the hyphen at least once. Table 4-14 presents the summary story.

When punctuation was used by the six subjects in conventional places, the period was the most frequently used. The period was used in several ways. Examples of the various uses are found in Scott's
Figure 4-61. All subjects: usage of punctuation within conventional opportunities created by the six children. 

0 = Omissions
S = Substitutions
M = Misplacement
C = Conventional
Table 4-14. All subjects: opportunities for punctuation compared to actual punctuation usage within the thousand-word sample.*

<table>
<thead>
<tr>
<th>Kinds of Punctuation</th>
<th>Laurel</th>
<th>Scott</th>
<th>Alice</th>
<th>Tagg</th>
<th>Vikki</th>
<th>Ted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period</td>
<td>121(14)</td>
<td>142(57)</td>
<td>99(43)</td>
<td>118(93)</td>
<td>205(20)</td>
<td>163(6)</td>
</tr>
<tr>
<td>Comma</td>
<td>72(23)</td>
<td>56(25)</td>
<td>137(61)</td>
<td>86(28)</td>
<td>73(11)</td>
<td>44(1)</td>
</tr>
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<td>Question mark</td>
<td>18(3)</td>
<td>2(1)</td>
<td>11(7)</td>
<td>2(1)</td>
<td>22(5)</td>
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</tr>
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<td>2(3)</td>
<td>0(0)</td>
<td>0(0)</td>
</tr>
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<td>Quotation Marks</td>
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<td>1(1)</td>
<td>0(0)</td>
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<td>18(16)</td>
<td>4(0)</td>
<td>6(8)</td>
<td>14(6)</td>
<td>4(3)</td>
<td>10(2)</td>
</tr>
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<td>3(31)</td>
<td>1(2)</td>
<td>11(2)</td>
<td>2(6)</td>
<td>6(1)</td>
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<td>2(1)</td>
<td>0(0)</td>
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<td>1(0)</td>
<td>0(0)</td>
<td>0(0)</td>
<td>0(0)</td>
</tr>
</tbody>
</table>

Opportunities (Actual Use)

|              | 231(56) | 210(115)| 267(131)| 234(134)| 306(45) | 223(10) |

Kinds of Punctuation Actually Used

|              | 4       | 5       | 9       | 7       | 5       | 4       |

* Opportunities created (Actual number used); includes substitutions, misplacements and insertions placed where punctuation was not conventionally expected. All usage whether conventional or not is counted.
writing. He placed a period at the end of a piece of writing. On January 3, Scott wrote 5 sentences. When he finished the last one he placed a period, although he had not used any for the previous sentences. He also used a period to denote the use of an initial. Scott was one of the three Scotts in the classroom, and was especially aware of adding his final initial with a period to identify himself. He used the same principle to let the reader know which of the two Davids in the room it was that he liked (see Figure 4-62). Scott also used a period at the end of each sentence as he developed a paragraph with a movement of thought from one sentence to the next (see Figure 4-63). Finally, periods were used to identify noun phrases and clauses within a particular sentence. On April 24, he began with a simple sentence but continued to add information. For example, as he listed each monster he set each phrase apart with periods. He then added a separate clause about his sister's placement in the picture which allowed him to create a compound sentence although he had already ended the first simple sentence with a period. His final sentence, which included a prepositional phrase, has a conventional period at the end (see Figure 4-64).

Over the year the six children attempted to add punctuation to their writing, with varying rates of success. It seems as if some children use punctuation to designate linguistic units other than the traditional sentence. They are inventing a way to separate these linguistic units. When looking at the conventional usage over the three segments, each child presents a unique pattern of development, as seen in Figure 4-65.
Figure 4-62. Journal, January 3 (Scott, 6:6), photo-reduced.

(I like David B.
I like Tagg.
I like Mike.
I like Jorgen.
I like Doug.)
April 22

I like Count Dracula. He can suck blood. It is sickening to watch. I would not like to see it.
April 24, 1977

These are all monsters. Wolfman and Dracula.
And Godzilla too.
And Rodan too.
And Machele is near Godzilla. She has her hair up in the air.

Figure 4-64. Journal, April 24 (Scott, 6:10), photo-reduced.

(These are all monsters: Wolfman and Count Dracula, and Godzilla too, and Rodan too. And Machele is near Godzilla. She has her hair up in the air.)
Figure 4-65. Conventional use of punctuation by the six children over the three segments.
The development of punctuation does not show a continuous rise in usage over time for the majority of the children. Only Tagg shows a dramatic increase over the three segments. For the others there are periods of progress seemingly followed by declines in conventional use. Ted copied news items and dates in the first segment, using conventional punctuation just as he used conventional spellings and lowercase letters (see Figure 4-22). However, as he moved to independent writing, he used space to meet his punctuation needs (see Figure 4-11). Laurel found it important to add apostrophes in contractions, though most of the periods were usually omitted (see Figure 4-14). Alice was the only person to place commas in a series, as she made lists of the years or months (see Figure 5-9). When Scott discovered an alternative form of writing the date, 1-3-77, he proceeded to place hyphens in the date as written with the month and year, JANUARY-3-19-77 (see Figure 4-50). Punctuation, or even more frequently, other alternatives such as spacing, were gradually used to help the reader understand what these writers wished to communicate.

Overview of the Construction of Meaning Within Written Text

This section will summarize the developing cueing systems used by the six children during this period of their development as writers in order to "learn how to mean" through written language. The goal of all language processes is the construction of meaning. It is the integration of all the language cueing systems and other symbol systems, such as the syntactic and orthographic, as well as occasional drawings, that allows the meaning of the subjects to reach the readers
of their written texts. At the same time that the children are engaged in the process of writing, developing control of the various conventions and forms used by writers begins to occur.

Within the classroom and home settings the children were surrounded by print and many opportunities arose for them to interact with the written word. When the study began on the first day of the school year, five of the six subjects wrote a piece of writing. No sample was available for Tagg until a week later. Evidence has been presented that the five subjects could write their names, understood left-to-right directionality, used alphabetic writing as opposed to lines or scribbles, had a concept of wordness, and knew that certain letters formed a word. Laurel wrote her house and phone numbers as well as the names of family members in a series of words on the paper (see Figure 4-66). Scott and Ted listed the letters of the alphabet in capital letter form, while Vikki and Scott also copied words from a traffic sign set present in the room (see Figure 4-67, as well as Figure 4-53, which is Vikki's first sample).

It is significant to note that at this point in time no child in the classroom produced a message for an audience—including members not chosen for intensive study. Twelve of these children were in the second grade portion of the class. They all reacted to the teacher's instruction, "Write anything you would like" as if it were a specific school task. A definite picture of writing in school was present on that first day in that no word written was misspelled and the children wrote what they knew they controlled—not what they wished to say.
Figure 4-66. Journal, September 8 (Laurel, 6:2).

(3844 [House number], 646-7787 [phone number], go, stop, Julie [sister], so, girl, top, orange, book, to, [numbers], TV, to, dog, cat, words, like, Mom, Dad.)
Figure 4-67. Journal, September 8 (Scott, 6:2), photo-reduced.

(647-6746 [phone number], slow, stop, up, [alphabet], fox)
Taylor (1983, p. 90) notes, "Reading and writing are lifted out of context in schools and become the focus of specific, culturally remote pedagogical attention. Literacy becomes an end in itself reduced to a hierarchy of interrelated skills." Such a picture of school writing might have been the force that drove the children to produce error-free isolated units of writing on the first day. However, as the children began to receive notes, hear stories and were given access to writing implements and materials, the context of the writing for the children in a school setting began to change. Print was presented in meaningful contexts in such instances as making a choice to use a lavatory marked GIRLS or BOYS, reading a note of welcome from the teacher, or writing one's name on oaktag to be taped above the coat hook.

As the children began to write in journals, produce notes or create a story, they had a meaningful message to communicate to audiences they knew and cared for. These messages were directed to various audiences—usually the teacher, but at times parents, peers or other interested adults. The children expected their notes and journal entries to be read and heard by the teacher and others, and expected a communicative response in return. They were encouraged to read these early messages as soon as they finished, as some writings lacked enough cues for the reader to understand the message.

When Ted wrote SO H DU LEK HAT on November 17, he also verbally stated these words, realizing that his teacher appreciated his attempts at writing (see Figure 3-9). He knew his writing was considered important because it was encouraged and received attention from
significant others. Unlike this example, although Ted often could not read his early messages within minutes after writing them, it did not mean he was just writing random letters or words. He was interacting with a reader, and his question followed the statement E HBN A NES DA (It has been a nice day), indicating his expectation that his writing was a communicative act.

Read (1976, p. 330) noted that the early writings that he collected from pre-schoolers "are usually sentences or phrases that constitute a message, so it is possible to use both context and spelling to identify with some certainty the words that were intended." The findings in this study indicate that the children's writings contained messages and were indeed functional and meaningful at all times, although the conventions needed to communicate the messages were not as yet fully developed. When the children in the study could not read their own messages or knew others had difficulty in comprehending, they began to realize they had not placed enough cues in the writing for readers, including themselves, to understand the meaning. It is through these experiences that children begin to use more conventional writing forms. The decisions to create meaning through developing greater control over surface features available in the child's language environment can be seen in the writings.

Harste, Burke and Woodward (1983, p. 69) describe a three-year-old's response to being asked to write her name. She made a series of 5 l's (|||) with the explanation, "My name is Lisa," thus writing one mark per syllable. They conclude Lisa related oral language to written language, and suggest that the decision to use l's
was influenced by the physical form of her written name. There is no doubt that Lisa responded to the researcher when asked to write her name, just as the subjects in this study produced meaning in their writings, responding to their different audiences and the context in which they were writing.

Various conventions had different effects on how the subjects could communicate meaning. For example, if the reader did not share the same environment or experience, a message could be difficult to understand if a child represented a word with one letter or omitted spacing between words, while lack of punctuation seldom created a problem. It is, therefore, not surprising that the children all showed greater control over spelling than punctuation. When Ted wrote on September 29, his message was directed to his teacher, and with Ted's help, was understood by her but it was difficult for others beyond the classroom to understand. Though Ted used all capital letters and separate lines for the two sentences instead of punctuation, it is the spelling and spacing which present greater difficulty for the reader. Development of these types of form by the six subjects needs to be considered in light of their desire to communicate meaning to a reader. What systems are most crucial for a young child to create a message which can be understood by a reader? It is the interaction or communication potential that helps children know what they need to develop in order to communicate.

**Use of Art to Communicate Meaning**

No requirements were placed on the subjects in regard to the use of art to accompany their writing. Yet this symbol system was used
in a variety of ways by the six subjects. Laurel and Tagg usually produced all text and did not add drawings. Alice produced drawings at the bottom of about half of her pieces of writing. These were usually added to the composition after the writing was completed. These drawings always related to the text that she created. Scott only used a few drawings in the first segment, but added them to nearly every piece of writing in the last two segments. He often made cartoon-like figures and created dialogue in the speaker's bubbles. His writing and drawing were done continuously almost as if drawing were part of the writing process (see Figure 4-68). Vikki's first writings were preceded by a drawing which she labeled herself and described to the teacher for dictation purposes (see Figure 4-69). She also made drawings for which she created a pretend conversation (see Figure 4-17). During the third segment her pictures became part of her text, as she described what she had drawn (see Figure 4-70). Ted concentrated on producing a message which covered the entire page during his first weeks of school. As his letter size decreased, he began to add pictures which were related to the text he created (see Figure 4-11). He usually continued to accompany his writings with drawings for the remainder of the year, sometimes producing the writing as part of the picture he was drawing (see Figure 4-39). When Ted and Scott added drawings they often enhanced the meaning of their writing (see Figure 4-71). Vikki's writing often gave further explanation to her drawings (see Figure 4-70). Laurel, Tagg and Alice's writing could be understood without the assistance of drawings. In all cases, the choice to use drawings or not, and the strategies employed in orches-
Figure 4-68. Note, January 4 (Scott, 6:6).

(Dear Miss Milz,
I like you. You are nice. Love, Scott)
Figure 4-69. Journal, September 16 (Vikki, 6:0), photo-reduced.

(dog dog)
Figure 4-70. Journal, April 20 (Vikki, 6:7).
(This is Godzilla.)
Figure 4-71. Journal, January 12 (Ted, 6:4), photo-reduced.

(I like my sister's dog.)
trating the symbol systems of art and writing show that these children had a variety of ways to orchestrate symbol systems as they construct meaning. Allen (1976) believes language learning is a multimodal event, and that art, drama, reading and speech are all integral components of writing.

Summary
The six subjects used different spelling strategies after the first day of school, when all six spelled every word conventionally. Laurel and Vikki continued to use conventional spelling all year, although Laurel was able to generate spellings independently while Vikki frequently attempted to get help from nearby sources. Alice and the three boys, Scott, Tagg and Ted, invented spellings to meet their needs during the entire study. As the children wrote, they used words common to American English, and all six children moved to highly conventional forms of these high-frequency words (see Spelling section, this chapter).

Each of the subjects could write a note during the opening days of the study as well as write in a journal. Stories were not produced until mid-year. The conventionalized text features found in the above began to appear in the children's writing: Dear ____, Love ____. Once upon a time, One day, The end. Words, phrases, and sentences were used to present the child's ideas. The messages grew in complexity from simple sentences to compound and complex sentences. Attempts to move to more complex structures could be seen as two simple sentences were joined with And (see Figure 5-55). Single sentences often comprised a whole piece of writing at the beginning of the study, while continuous
text with a unified idea filled several pages at the close (see Figures 4-32 and 4-34). As the children needed a particular form or structure to construct meaning in a particular context, they attempted to create them, and learned how to use them.

The major area which did not show rapid growth during the period of the study was punctuation. Instead, the children frequently relied on spacing to separate sentences or paragraphs. They created the places where punctuation could be placed but omitted the marks the majority of the time. When punctuation was placed, it was often used to separate two sentences in the middle of the line. Tagg used three periods in his good-bye letter to Jean on April 27, while on April 26 he only placed a period after the date. This may suggest that punctuation is a system that is not crucial to the communication of the messages these writers constructed for their audiences (see Figures 4-72 and 4-73).

Each of the six children produced writing using rules which all language users must develop in order to understand each other. As they used writing to meet their own particular purposes they also learned how to write. Thus, Scott could review past experiences and build a contact for future meetings while creating language, as he wrote a good-bye note to Jean who was leaving the school (see Figure 4-74). As each child, like Scott, used writing and learned how to write, they expanded their capabilities to construct more varied and expanded meanings.
Dear Jean

I will miss you a lot. I wish you could stay.

Good-By.

Tagg

Figure 4-72. Note, April 27 (Tagg, 6:9), photo-reduced.

(Dear Jean,
I will miss you a lot. I wish you could stay. Good-By.

Tagg)
April 26, 1977.

I like School. It is fun and we read a lot. You do lots of things. M.M.
Good-bye Jean from Scott H. I like you. Remember you used to kick me in the leg. I will miss you. I like you and I hope you liked me too. Today was Doug's birthday. If you want my phone number here it is, 647-6740. from Scott H.
CHAPTER 5

CASE STUDIES OF TWO YOUNG WRITERS

One of the major purposes of this study was to examine, in depth, the unique writing development of the individual child. Thus, the presentation of the data gathered and their analyses moves from the all-subject findings reported in Chapter 4 to individual case studies for two children in this chapter. Findings from the analysis of the parent survey, teacher observations, and the writing samples are reported in the following four categories:

1. General Background: Each child is introduced with information from the parent survey and teacher observations.

2. The Child as a Writer: This category includes quantitative data based on examination of the writing samples. Types, functions, and syntactic maturity, as well as audience to whom the writing is directed are described.

3. The Child's Use of the Conventions of the Writing and Spelling Systems: A description of the use and developing control of the surface features of written language including conventions of spacing, linearity and directionality, capital and lowercase letters, spelling and punctuation are given for each subject.

4. Overview of the Child's Construction of Meaning Within Written Text: The cueing systems each child uses are presented to show the child's development of writing within the types of writing
used throughout the study. Construction of meaning includes not only the semantic systems of language but also the integration of the syntactic and orthographic systems. The organization of written language through the latter two systems allows the meaning potential to reach the reader of the written text.

Subject: Alice

General Background

Alice was six years two months at the beginning of the study. She was born in the U.S.A. on July 21, 1970 to parents who emigrated to America from Korea. Her father has a doctorate in chemistry and was employed as a chemist. Her mother is a college graduate and was working as a registered nurse on the midnight shift at a local hospital. Alice is the youngest of three girls—Elinor was ten and Grace was fourteen at the time of the study. Both Korean and English are spoken at home, although English is Alice's first language. The parents speak Korean to each other in the home, but English is usually spoken to the girls. The parents had plans to send Alice to Korean Saturday School in a year or so.

Alice is a friendly, yet very serious child. She was sensitive to the feelings of others, kind and very loving. Her curiosity is frequently evidenced by the questions she asked both verbally and in her writing.

Both parents stated they enjoyed reading and writing. The father read professional journals in several languages while the mother
liked historical fiction and biography. Business-oriented reports and publications were written by the father, while in recent years the mother mostly wrote personal letters to relatives in the home setting. They bought books for their children as well as took them to the public library to borrow additional materials. Writing supplies were available in the home.

Alice's mother, as well as her two sisters read to her at bedtime, but at the time of the study Alice already was frequently looking at picture books and comic books by herself and attempting to read them. According to teacher observations during the first weeks of school, Alice did not read the continuous text printed in books, although she did know a few isolated words.

At home Alice had two older sisters to play school with and teach her. She began to repeat words from her sisters' books and noted numbers on the TV set by 3 years 6 months. Between 3 and 4 years of age, she wrote her name, numbers, and isolated words. Her surprised family responded with "very nice to write so well," and "write some more," which Alice did.

Alice as a Writer

Quantitative Data on Writing. During the nine months of the study, Alice wrote 298 pages. Her thousand-word sample, drawn from these pages for in depth analysis, included 61 pages of writing. The entire word bank was composed of 7,823 words found in 288 pieces of writing done in school or at home. The thousand-word sample represented 13% of her running words or 51 pieces of writing. Several
pieces contained more than one page of writing. Alice produced 81% of her writing in school, while 19% was done at home. Of the six selected students, Alice produced the second highest amount of writing.

Types of Writing. During the three segments in which Alice produced the thousand-word sample, she used three types of writing: journal entries (62%), notes (36%) and stories (2%) (see Figure 5-1). The journal entries and notes were similar to the proportions found in the entire data bank of 288 pieces of writing. However, the story percentage does not reflect that Alice had written a total of thirteen stories (4%) over the entire study. This is because twelve of her stories were written during the part of the year not included in the thousand-word sample. Figure 5-1 shows the percentages represented by each type of writing in the thousand-word sample.

Notes

Alice's earliest spontaneous writings were in the form of notes. On the second day of school she wrote a note with a salutation and closing, along with a ritualistic question, HOW ARE YOU? DOING TODAY. This note was in response to a note from her teacher which had been placed in her mailbox. The form was very similar to one written by the teacher, who opened with Dear Alice, and ended with Love, Miss Milz. Alice knew how to locate information in the teacher's note which she could use, while changing the names as needed (see Figure 5-2).

During the first segment Alice frequently wrote notes similar to that of September 10. She would use the same message but address each separately to another person: her teacher, the principal or the school secretary. Each letter contained words which Alice copied or
Figure 5-1. Types of writing used by Alice (6:2-6:9).
(Dear Miss Milz,
   How are you doing today?
   Love,
   Alice)
could write conventionally but did not reflect her own feelings or present very personal information to the recipient (see Figure 5-3). However, as Alice received new notes from the recipients of her notes, she began to respond to their questions and messages. An example was found in a note of September 21 expressing happiness, although she did not explain the reasons for her feelings (see Figure 5-4).

During the second segment, Alice's notes contained statements which reflected her personal feelings as well as questions which allowed her to interact with her reader. However, Alice still was very brief and did not share much of herself in her writing (see Figure 5-5).

In the third segment, Alice's notes carried longer, more complex messages though her purpose in writing remained similar, as she usually attempted to build a personal relationship with her reader. She now expressed her purposes more directly. In Figure 5-6, Alice told Dr. Goodman again how she felt about her, and stated reasons why Dr. Goodman should return to the classroom. She described her own reactions to missing Dr. Goodman and tried to get her to think back over their good times together and to return for another visit. A dramatic change is seen in this note as compared to Alice's first note of September 10 (see Figure 5-2) or to the one sent to Dr. Goodman in the second segment on January 13 (see Figure 5-5).

Alice always used the form DEAR ____, LOVE ____, whenever she began or ended a note. She did not sign her name unless she preceded it by the LOVE ending. The only exceptions to the use of this form were when she used classroom note paper, which was printed with a
Figure 5-3. Note, September 29 (Alice, 6:2).

(Dear Mrs. Morkin,
How are you today?
Love,
Alice)
Figure 5-4. Note, September 21 (Alice, 6:2).

(Dear Miss Milz,
I was happy last night.
Love,
Alice)
Jan 13
6:5

Dear Dr. Goodman,

I like you very, very much because you are nice to me and do you like me very, very much.

Love,

Alice

Figure 5-5. Note, January 13 (Alice, 6:5), photo-reduced.

(Dear Dr. Goodman,

I like you very, very much because you are nice to me and do you like me very, very much.

Love,

Alice)
April 26, 1977

Dear Dr. Goodman,

I like you a lot. I like when you sing kinds of songs, and if you stay there I will miss you. Don't stay there. I will cry unless you could come again very soon, and do you like our Way School? Do you like to sing with us? I like to sing with you and I bet they do too.

Remember I like [you] a lot, and I won't forget.

Love,

Alice S___
TO ____ FROM ____ memo heading (see Figure 5-7). However, she did not use this heading independently on plain paper as Tagg and some of the other children did (see Figure 5-36).

During the third segment, Alice recorded the date on her notes, just as she did when she wrote in her journal. She was the only subject to consistently place the date on her notes during any of the segments. This seemed to reflect a blending of the form of the journal with the note rather than the awareness of the convention of placing a date on a friendly letter as it was placed on the left side of the page similar to her journal entries. It may also have reflected that she remembered the teacher's request that everything be dated for the purpose of the research.

Journal

As Alice began to write in her journal, her entries were similar to the notes she had been writing. Although she did not use a formal DEAR, she still began each entry with an address such as MISS MILZ. On September 16, after receiving help on the word FINE and being encouraged to write independently, Alice wrote HOW ARE YOU, a ritualistic question she already could write by herself. She then added information about her name, her two sisters' names, and the family surname. Just as with notes, she directed the journal entry to a particular audience—in this instance her teacher (see Figure 5-8).

During the second segment Alice began to take inventory of things in her personal experiences and environment. She made lists of friends, as well as the months, years and holidays. Clay (1975, p. 34) refers to this "inventory" principle as a common form in children's
(To: Miss Milz
From: Alice S
Message: I like you very much, so much I love you.)
September 16th

Miss Milz, I am fine. How are you? It is our name. [It is Alice, Elinor, and Grace S. It is our name.]
writing. At times she gave reasons why she liked a particular thing, although her reasons were often ambiguous (see Figure 5-9). Alice also began to answer questions placed in the notebook by her teacher, although she usually did not initiate questions herself (see Figure 5-10).

During the third segment, Alice continued to make lists as she experimented with cursive writing. The information presented was similar to the inventories she created in the second segment, with the only change being the new kind of writing—cursive (see Figure 5-11).

Alice referred to classroom experiences as she wrote in her journal. One such entry referred to a previous discussion with the teacher. It informed the teacher of a fact that her sister had told Alice, which contradicted what the teacher had said (see Figure 5-12). Poetry was read in the classroom, and Alice began to try writing poetry in her journal. Her poems had some rhyming couplets but tended to be free verse expressing Alice's happy feelings and showing her imagination (see Figure 5-13).

**Stories**

Alice's one story in the thousand-word sample, *The Sun*, shows again how she did not clearly differentiate types of writing, but instead often blended elements together. She placed the story in a booklet about 2" square and addresses it to the teacher using two salutations. The first, TO: MISS MILZ was used as if the cover were an envelope. The second page had a traditional letter opening, DEAR MISS MILZ. Alice then provided information about having Caroline visit, just as if she were writing a friendly letter. She interacted with the

There is January, February, March, April, May, June, July, August, September, October, November and December.

I like the sun and the snow because they are fun.
I like Alice. Tell about the things you like. I would like to know what you like, MM.

Because you are nice and I like school. Because teachers teach you.

I'm glad you like me. What do you like to do in school? MM. Go to the next page.

I like to make things.

6:5

Figure 5-10. Journal, January 6-7 (Alice, 6:5), photo-reduced.

(I like you because you are nice and I like school because teachers teach you. I like to make things.)
Figure 5-11. Journal, April 25 (Alice, 6:9), photo-reduced.

(What makes a year is ... January, February, March, April, May, June, July, August, September, October, November, December is a year.)
Figure 5-12. Journal, April 26 (Alice, 6:9).

(My sister Elinor says that dinosaurs lived when cavemen lived.)
April 29, 1977

Spring, spring, ding, ding, ding, bells ring all day, to say all day Happy Day.

Figure 5-13. Journal, April 29 (Alice, 6:9).

(Spring, spring, Ding, ding, ding, Bells ring all day, To say all day, Happy Day.)
reader as she did in other notes, and then finished with factual information in a story form. The story included personal statements about her knowledge of the sun, and its effect on the seasonal changes from winter to summer. The sentences were unified by one idea until the final page, when Alice returned to repeat a previous statement by telling the teacher that she liked her. Instead of ending the note with a signature, Alice used a story ending, THE END (see Figure 5-14).

Although only the above story was included in the thousand-word sample, in addition Alice wrote 11 stories during the study as well as one story on the closing day of the school year. It is helpful to look at these samples outside the thousand words in order to show development. Alice wrote 4 stories which she included as portions of letters. Only one of these stories, The Sun, was in the thousand-word sample. The other three were developmental variations of a story first titled WAM MAC MEES SAM (When Mac Meets Sam). Two stories were written as journal entries, and were not intended for classroom publication. They were further developments of the story, When Mac Meets Sam, that Alice had originally written in a letter on November 12. Seven rough drafts were written by Alice which she wanted typed and placed in a book to be read within the classroom. Of these six drafts, four were written in the first person about herself and her personal experiences. Two were factual reports, one about things in the ocean, and one about the months of the year which was never completed. The last one was a fictional story about a little girl who played hockey, The Girl Who Wanted to Score. Table 5-1 lists the titles of the stories according
To Miss Milz, Alice, 6:9

Dear Miss Milz,

I love you very much. You are really nice. I dream of you as a star. Oh! I love you, if you know. Oh well, Caroline slept on March 12, 1977. She slept over. It is nice when you can have fun. It is nice to have fun with things, like letters! Letters are nice. They make me happy, and so does a story like this.

The Sun

Once I saw the sun. It was hot. I did not want to see it or touch it. It was stronger than the snow. I like the sun, but ... it makes me hot—really hot.

Oh well. It is good. No more winter stuff but ... I still like winter, and I guess it isn't bad at all and summer isn't bad at all either. Hee, hee, ho, ho. I like you. The end.)
Table 5-1. Stories written by Alice, 1976-77 school year.

<table>
<thead>
<tr>
<th>Date</th>
<th>Title</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov. 12</td>
<td>WAN MAC MEES SAM</td>
<td>Portion of letter to teacher</td>
</tr>
<tr>
<td></td>
<td>(When Mac Meets Sam)</td>
<td></td>
</tr>
<tr>
<td>Nov. 24</td>
<td>WEN MAC MES SAM</td>
<td>Portion of letter to trusted adult</td>
</tr>
<tr>
<td></td>
<td>(When Mac Meets Sam)</td>
<td></td>
</tr>
<tr>
<td>Dec. 9</td>
<td>WHAN I AM HAPPY</td>
<td>To be published within classroom</td>
</tr>
<tr>
<td></td>
<td>(When I am Happy)</td>
<td></td>
</tr>
<tr>
<td>Feb. 8</td>
<td>THE BOOK ABOUT ME</td>
<td>To be published within classroom</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb. 22</td>
<td>NO TITLE (When Mac Meets Sam)</td>
<td>Journal entry</td>
</tr>
<tr>
<td>Mar. 1</td>
<td>NO TITLE (When Mac Meets Sam)</td>
<td>Journal entry at home</td>
</tr>
<tr>
<td>Mar. 7</td>
<td>NO TITLE (The Girl Who Wanted to Score)</td>
<td>To be published within classroom. Title was added at Writing Conference.</td>
</tr>
<tr>
<td>Mar. 8</td>
<td>THE BOOK ABOUT MY FAMILY</td>
<td>To be published within classroom</td>
</tr>
<tr>
<td></td>
<td>(The Book About My Family)</td>
<td></td>
</tr>
<tr>
<td>Mar. 28</td>
<td>ME IN SCHOOL</td>
<td>To be published within classroom</td>
</tr>
<tr>
<td>April 21</td>
<td>IN THE WATER</td>
<td>To be published within classroom</td>
</tr>
<tr>
<td>April 22</td>
<td>THE BOOK ABOUT THE YEAR</td>
<td>To be published within classroom</td>
</tr>
<tr>
<td>April 28*</td>
<td>THE SUN</td>
<td>Portion of letter to teacher</td>
</tr>
<tr>
<td>June 16**</td>
<td>NO TITLE (When Mac Meets Sam)</td>
<td>Portion of letter to teacher</td>
</tr>
</tbody>
</table>

* In thousand-word sample.  
** Written after the close of study.
to the date of writing and briefly describes why Alice wrote each story.

Five of the stories which Alice wrote are of special interest in that they are developmental variations of a story called When Mac Meets Sam. Each of the stories was written separately, with at least a week lapse between writings. Alice did not use a previously written copy in an editing procedure to create a new draft, but instead each story was written as if it were a new creation.

When Alice wrote these five stories, she enclosed them in either a note or journal format. The first two times Alice wrote the story as part of a letter (see Figures 5-15 and 5-16). The next copy was written on February 22 in a notebook which she kept at home. She then wrote a version on March 1 in her journal at school, and the last story was enclosed in a letter to her teacher written on June 16, which was the last day of school (see Figures 5-17, 5-18 and 5-19). None of the stories was written for the purpose of classroom publication. Yet each of the stories within the note or journal format had elements of storyness which helped to define them as stories.

Each of the stories had settings with which Alice would be familiar. The act of taking a walk by realistic characters (two males) was within Alice's range of observation, and could have happened in her immediate environment. Yet Alice prefaced her stories with statements that the piece was fictional as compared to a personal or factual event in her experience. On November 12, Alice wrote, I MADE UP MY OWN STORY (I made up my own story) (see Figure 5-15). On November 24 and June 16, she wrote, I WILL TELL YOU A STORY, drawing a relationship to the
Figure 5-15. Note, November 12 (Alice, 6:3), photo-reduced.

(Dear Miss Milz,
I made up my own story. It is When Mac Meets Sam. One day Mac went on a walk and Mac saw Sam. Sam said, "Hi" and Mac said, "Hi." Do you want to walk with me?" "I will." The end.

Love, Alice
(look on the back.)
(Dear Dr. Goodman,

I will tell you a story. This is it, When Mac Meets Sam. One day Mac went on a walk and Mac saw Sam. Mac said "Hi" and Sam said "Hi." Mac said "Will you walk?" "I will." The end.

Love,

Alice)
Figure 5-17. Journal, February 22 (Alice, 6:7), photo-reduced.

(Once upon a time, there was a man and his name was Mac and Mac went for a walk and then he saw Sam. "Hi Sam." "Hi Mac." "Do you want to walk with me?" "Yes." "O.K." Then they walked. Then they went home. "Good-bye, Sam." "Good-bye, Mac." Then they went home and they lived happily [ever] after.

The end.)
(Once upon a time there was a man. His name was Mac. One day Mac went for a walk. Then Mac saw Sam. "Hi Sam." "Hi," Mac said. "Will you walk with me?" "Yes."
"O.K." and they walked home. "Good-bye, Mac." "Good-bye, Sam."
June 16, 1977
6:10

Dear Miss Milz,

I will miss you so badly. Because last night I was crying.

So I will tell you a story, but it is not real.

One day Sam went for a walk and he saw Mac. "Hi Mac." "Hi Sam." "Do you want to walk with me?" "O.K." and then in an hour later it was night and they went home.

The end.

Love, Alice

and I like you.

Good-bye Miss Milz.

Figure 5-19. Note, June 16 (Alice, 6:10), photo-reduced
oral story-time experiences which occurred both in school and at home (see Figures 5-16 and 5-19). In the June 16 story, she again notes the fictional quality by stating BUT IT IS NOT REAL (see Figure 5-19). She presents herself as the storyteller, although she does not involve herself in the action.

Alice exhibited sensitivity to the story genre when she consistently used past tense as well as formal beginnings and endings to mark each of the story sections of the notes or journal entries. ONE DAY was used to open the first two stories as well as the final one, and THE END, a typical first grade closing for any piece of writing, was used to finish each story. The third story, which is the most complete, utilizes the beginning and ending found in many folktales, ONCE UPON A TIME and LIVED HAPPEE AFEDER (happily ever after) (see Figure 5-17).

The stories demonstrated Alice's growing knowledge of plot development. They consist of a chain of events linked to each other, and include dialogue between the two characters. The first two stories consist of the first person meeting someone while out walking and asking him to join the walk. They stop abruptly with no feeling of ending (see Figures 5-15 and 5-16). Little elaboration is added in each of these skeletal stories. The third story reflects a dramatic change. Alice notes that her first character is a man and names him. The same actions of taking a walk, meeting someone, and inviting him to join the walk are used, but this time the shared walk is noted as well as their parting. The final statement returns each character to his home and tells that they had a happy life, although it is ambiguous in
that no elaboration explains why they were happy (see Figure 5-17). The fourth story is similar to the third, although they walked home directly (see Figure 5-18). The last story adds information about the time of day and the length of time spent on the walk. It also reverses the characters' names and has Sam, the second character in the previous story, going for the walk and inviting Mac to join him (see Figure 5-19). Each of the five stories added new information for the reader, even as Alice returned to a familiar theme.

Evidence of other developmental changes in Alice's writing could be noted in the five stories. Alice's spelling moved gradually to the use of more conventional forms. As she used \textit{went} and \textit{walk} over and over, she gradually moved from phonetic representations to control of a conventional form of each word. She usually wrote in one long sentence, but did use some conventional punctuation by the last story. This allowed her to divide the story into three sentences to clarify her ideas further. She used space on her paper more efficiently each time, moving from using only the left side of the page to the left half to filling a whole page, while usually using alternate lines.

When Alice returned to this same story in her writing, it was similar to the way young readers often return to a favorite book to re-read and enjoy the story again. As children read familiar material, they become stronger readers and gradually become more fluent and proficient. It is interesting to note the developmental change which occurred each time Alice wrote the story again. Alice was producing many other pieces of writing during this time, yet these five stories
provide a glimpse of the changes which occurred in Alice's writing during the study.

**Summary**

In summarizing Alice's choices of writing types, Table 5-2 shows that she wrote more notes in the first segment and more journal entries in the middle segment. During the last segment, Alice increased the percentage of notes from the previous segment, but still produced more writing of the journal type. Her growing interest in stories was reflected by the 8% figure which was written in the last segment (see Table 5-2).

**Functions of Writing.** The major types of writing that Alice used were the journal entry and notes. Notes, because of their nature, were mainly interactional. The journal entries showed greater variety in their functions, but were predominantly personal and informative. Alice's one story in the thousand-word sample, because of its placement in the note-booklet, included both interactional and informative functions (see Figure 5-14). Table 5-3 shows the percentage of functions that Alice used for each type of writing.

As the functions Alice used for writing are compared over the three time segments, a change from a high proportion of interactional writing to personal writing is seen between the first two periods. During the third segment, Alice used five functions with similar amounts of interactional and informative writing predominating. There is a steady development in the use of the informative function, although Alice's writing demonstrates more flexibility in the use of all five functions by the third segment (see Table 5-4).
Table 5-2. Types of writing Alice used during the three segments.

<table>
<thead>
<tr>
<th></th>
<th>Journal</th>
<th>Notes</th>
<th>Stories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segment 1</td>
<td>43%</td>
<td>57%</td>
<td></td>
</tr>
<tr>
<td>(Sept. 8-Oct. 6)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Segment 2</td>
<td>78%</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td>(Jan. 3-Jan. 20)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Segment 3</td>
<td>54%</td>
<td>38%</td>
<td>8%</td>
</tr>
<tr>
<td>(April 25-April 29)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 5-3. Comparison of three types of writing as to function used by Alice (by percentage),

<table>
<thead>
<tr>
<th>Function</th>
<th>Journal</th>
<th>Notes</th>
<th>Stories</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal</td>
<td>27.0</td>
<td>1.5</td>
<td>0</td>
<td>28.5</td>
</tr>
<tr>
<td>Interactional</td>
<td>8.0</td>
<td>27.0</td>
<td>1.5</td>
<td>36.5</td>
</tr>
<tr>
<td>Informative</td>
<td>21.0</td>
<td>6.5</td>
<td>1.5</td>
<td>29.0</td>
</tr>
<tr>
<td>Imaginative</td>
<td>3.0</td>
<td>0</td>
<td>0</td>
<td>3.0</td>
</tr>
<tr>
<td>Regulatory</td>
<td>0</td>
<td>3.0</td>
<td>0</td>
<td>3.0</td>
</tr>
</tbody>
</table>

100.0
Table 5-4. Writing functions used by Alice during three time segments.

<table>
<thead>
<tr>
<th></th>
<th>Segment 1 (9/8-10/6)</th>
<th>Segment 2 (1/3-1/20)</th>
<th>Segment 3 (4/25-4/29)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Times Used</td>
<td>%</td>
<td>Times Used</td>
</tr>
<tr>
<td>Personal</td>
<td>1</td>
<td>6%</td>
<td>14</td>
</tr>
<tr>
<td>Interactional</td>
<td>11</td>
<td>69%</td>
<td>6</td>
</tr>
<tr>
<td>Informative</td>
<td>4</td>
<td>25%</td>
<td>8</td>
</tr>
<tr>
<td>Imaginative</td>
<td>0</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td>Regulatory</td>
<td>0</td>
<td>0%</td>
<td>0</td>
</tr>
</tbody>
</table>

16  100%  28  100%  19  100%
Examination of Alice's first segment of writing reflects her use of the interactional function. Her notes were directed to her teacher and other trusted adults (see Figures 5-3 and 5-4). Early journal entries often began with the teacher's name, MISS MILZ, and allowed Alice to build a personal relationship with her new teacher as they interacted through the medium of print (see Figure 5-8). On September 29, Alice's journal entry contained two statements addressed to the teacher. The use of the heading on the journal entry showed the interactional function of this piece of writing which also served an informative function (see Figure 5-20).

During the second segment, Alice responded to questions written in her journal by her teacher by using the interactional function (see Figure 5-10). When she began to make lists, she frequently used the personal function (see Figure 5-21). However, her lists also had an informative function as found on January 13, when Alice wrote THERE IS ___ (see Figure 5-9). The next day on January 14, her journal combined both personal and informative functions in one entry, I LIKE ___, THEY ARE FUN (see Figure 5-9).

During the last segment, Alice used a variety of functions. She used the informative function as she continued to make lists (see Figure 5-11). When she wrote a factual story, she enclosed it in a booklet which she addressed in the form of a note. Thus, the story written on April 28 employed both the interactional and informative functions (see Figure 5-14). Another note used the regulatory function as Alice tried to convince Bette to continue their friendship (see Figure 5-22). Alice also used the imaginative function as she began to
September 29

Miss Milz

Today it is sunny outside. I like school and you.

Figure 5-20. Journal, September 29 (Alice, 6:2).

(Miss Milz,
Today it is sunny outside. I like school and you.)
I like school, Doug, Caroline, Travis, Brad, Tagg, Todd, Matt, Vikki, Jeanne and Jenny.
Dear Bette,
I want you to do this if anybody says that "Do not talk to Alice." Then please still talk to me because I like you very much and I hope you like me.

Love,
Alice S___

Figure 5-22. Note, April 27 (Alice, 6:9).

(Dear Bette,
I want you to do this if anybody says that "Do not talk to Alice." Then please still talk to me because I like you very much and I hope you like me.
Love,
Alice S___)
write poetry. In one of her poems, she created CHOCLET LAND (Chocolate Land). She seemed to be focusing on the sounds of rhyme in this poem rather than on the expression of meaning (see Figure 5-23).

**Audience.** Alice's writing, because of her extensive note writing and journal keeping, was directed to her teacher 68% of the time. As the school year began, Alice wrote both notes and journal entries to her teacher. She expected the teacher to read her journal entries, even though it had been stated that the journal was for her own personal use and would belong to her when it was completed (see Figure 5-2 and 5-8). Alice again demonstrated her awareness of her teacher as audience on January 7. She responded to a statement that the teacher had written, "Tell about the things you like. I would like to know what you like. M. M.," by writing, I LIKE YOU BECAUSE YOU ARE NICE AND I LIKE SCHOOL BECAUSE TEACHERS TEACH YOU (see Figure 5-10).

In the beginning segment Alice frequently sent the same or similar message to different people (see Figures 5-2 and 5-3), but during the second segment, she wrote different messages to her different audiences. She sent notes telling how much she liked someone she knew, as in her letter to Dr. Goodman on January 13 (see Figure 5-5). On January 13, she also wrote to a first grader in Arizona and told of having 10 inches of snow in Michigan. Alice knew that Arizona was a warm desert state, and thought of her prospective penpal's reaction to the large amount of snow as she added the phrase BUT IT IS FUN HERE (see Figure 5-24). When she wrote to a professional author, she told how much she liked his books, but she also added information about her classroom by naming her teacher and the pre-service teacher
April 28, 1977

Choclet Land

Singing Hi to every eye to see you again soon
See you again soon
See you again
Late afternoon.

Figure 5-23. Journal, April 28 (Alice, 6:9).

(Chocolate Land
Chocolate land
Singing Hi to Chocolate land.
Singing Hi and good-bye
to every eye
See you again soon
See you again soon
See you again
Late afternoon.)
Dear First Grader,
I live in Michigan and we have 10 inches of snow here. But it is fun here!

Love
Alice

Figure 5-24. Note, January 13 (Alice, 6:5).
who was working in the classroom at the time. She provided information she knew the author would not know and might like to have (see Figure 5-25).

During the third segment, Alice's writing contained evidence of her awareness of audience. She wrote a statement which indicated she knew her teacher would read her notebook, MY SIS DAR ELINOR SEZ THAT DANA SOR LIVE WHEN CA VEMAN LIVE (My sister Elinor says that dinosaurs live when cavemen live). This statement related to a discussion about dinosaurs held with the teacher in the classroom. Although scientifically the dinosaur pre-dates human beings, comics, movies and toy dinosaur games place cavemen in scenes with dinosaurs—quite a dilemma for a first grader. Alice used her journal entry to pose an argument and back it up with an authority—her older sister (see Figure 5-12). Alice also brought shared experiences into notes that she wrote to others. Her note to Dr. Goodman describes the singing they had done together, as she tried to convince her to return (see Figure 5-6).

Table 5-5 shows the number and percent of writing to the different audiences for whom Alice wrote.

Syntactic Development. Alice's written text increased in length and complexity during the period of the study. During the first segment, she wrote 27 T-units with an average length of 4.88 words per T-unit. There were 29 clauses in the 27 T-units, which gave a ratio of 1.07 clauses per T-unit. She produced a total of 32 T-units in the second segment, with an average length of 8.09 words per T-unit. Within the 32 T-units were 43 clauses, for a ratio of 1.34 clauses per T-unit. During the last segment, 54 T-units were written, with an
(Dear Bill Martin,
I like your books very, very, very much and Miss Milz
and Miss Goodman is our teacher.
a book

Love,
Alice S

and Halloween and Thanksgiving and Christmas are over and
even New Year's Day.)
Table 5-5. Distribution of audience categories used by Alice.

<table>
<thead>
<tr>
<th>Audience</th>
<th>Number of Writings</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Teacher</td>
<td>35</td>
<td>68</td>
</tr>
<tr>
<td>Known Adults</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>Peers</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>General Audience</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Unclassified</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>
average of 7.6 words per T-unit. This was a slight decrease in T-unit length from the second segment. However, Alice used 89 clauses within the 54 T-units, which increased the ratio of clauses per T-unit to 1.65. Table 5-6 is a summary of the T-unit analysis performed on Alice's writing. All categories except words per T-unit in the third segment reflect an increase or growth in syntactic maturity during the study.

**Syntactic Features**

During the first segment, Alice made use of various syntactic features. She began to write notes with a short ritualistic question, HOW ARE YOU? DOING TODAY, while appearing to control most of the conventions needed to write a message (see Figure 5-2). On September 16, Alice made her first attempt to convey a personal message. She first wrote I AM, and then asked for assistance for the word FINE as she formed a ritualistic statement. When encouraged to continue on her own, she wrote HOW ARE YOU, but continued with new information about her family. At this point she encountered difficulty with the syntax of the sentence, leaving out several needed words (see Figure 5-8). Many of these early entries had single questions HOW ARE YOU TODAY or simple declarative sentences, TODAY IT IS SUNNY OUTSIDE. Several entries had up to four sentences, although there was no cohesiveness from one to the other. On September 23, Alice wrote declarative statements as she tried to write a riddle about the flag. However, she did not unify these statements with a question, at the end which is usually used with a riddle form (see Figure 5-26). On October 1, she wrote from a first person perspective using a complex sentence with a
Table 5-6. T-unit analysis of Alice's writing.

<table>
<thead>
<tr>
<th></th>
<th>Total No. of T-units</th>
<th>Words Per T-unit</th>
<th>Total No. of Clauses</th>
<th>Clauses Per T-unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segment 1 (9/8–10/6)</td>
<td>27</td>
<td>4.88</td>
<td>29</td>
<td>1.07</td>
</tr>
<tr>
<td>Segment 2 (1/3–1/20)</td>
<td>32</td>
<td>8.09</td>
<td>43</td>
<td>1.34</td>
</tr>
<tr>
<td>Segment 3 (4/25–4/29)</td>
<td>54</td>
<td>7.6</td>
<td>89</td>
<td>1.65</td>
</tr>
</tbody>
</table>
Figure 5-26. Note, September 23 (Alice, 6:2).

(Dear Miss Milz,
It is fun at school. Something is red. Something is white. Something is blue.
Love,
Alice)
dependent clause indicating causation, I CAT GO ON THE MONKEY BAR S P COS I GO CAT (I can't go on the monkey bars because I got cut) (see Figure 5-27). Another development occurred on October 6, when Alice used a compound sentence with the subject in the first clause, but appropriately omitted it in the second clause (see Figure 5-28).

During the second segment Alice produced longer sentences. She joined two T-units, each containing a dependent and main clause (see Figure 5-10). Another syntactic complexity she added at this time was to use a series of items in a sentence. She conventionally used commas and AND to separate the items (see Figure 5-21). Other new developments from the short ritualistic questions and simple declarative statements of the first segment were seen in Alice's writing samples of January 13. When Alice wrote to her prospective penpal in Arizona, she joined three clauses, using the coordinating conjunctions AND and BUT, into one long sentence. There was a flow of thought and cohesive ties from one clause to the next (see Figure 5-24). In the second note that Alice wrote that day she wrote two T-units in one long sentence. The first T-unit was composed of a main clause with the intensifier VERY VERY MUCH and a dependent clause beginning with the subordinating conjunction BECAUSE (because). She joined the second T-unit through the use of AND. The second T-unit was composed of a question modified by VERY VERY MUCH (see Figure 5-5).

The development continued so that by the third segment Alice could produce sentences containing up to four dependent clauses. An example is found in a note written on April 27. The note in which the sentence with four dependent clauses appeared was composed of a total
Figure 5-27. Journal, October 1 (Alice, 6:2).

(Miss Milz,
I can't go on the monkey bars because I got cut.)
Figure 5-28. Note, October 6 (Alice, 6:2), photo-reduced.

(Dear Mom,
I like you and my teacher.

Love, Alice

I love you too
I love you too
I love you Mom
I love you Mom)
of three sentences which were unified by one idea (see Figure 5-22). Alice wrote a note on April 26 which contained 11 T-units with many having dependent clauses beginning with WHEN, UNLESS, and IF. She used contractions DON'T, WOT (won't) in several of the sentences. The entire note had cohesive unity (see Figure 5-6).

Alice's Use of Conventions of the Writing and Spelling Systems

**Word Boundaries.** Word boundaries were established in Alice's writing prior to the period of the study, since appropriate word boundaries were part of her earliest writings in this study. At the beginning of the year several words with two syllables were treated as two separate words, TO DAY (today) (see Figure 5-2) and P COS (because) (see Figure 5-27). In the October 1 sample, she also erased a letter (I) which she did not need and left a space before adding S to BAR S (bars) (see Figure 5-27). Except for these examples, throughout the study Alice used conventional word boundaries.

**Linearity and Directionality.** Alice's writing during the study indicated that she was aware of left-to-right linearity as well as top-to-bottom directionality. The one exception was the entry on October 1, when she returned to the left margin to write GO (got) and then placed the next word CAT (cut) on the previous line. She usually justified the left margin and could have been trying to do the same on the right margin (see Figure 5-27).

**Utilization of Space.** During the year Alice used every line and usually filled the top portion of a page if she was writing a letter (see Figure 5-6). When she used her journal she would place a
second entry lower on the same page, even if it was written the next day. She used spacing to meet the needs of the type of writing, and was the least of the six subjects concerned with filling the available space.

Between segment one and two, Alice experimented with vertical writing down the left margin of the page. She varied the left-to-right linearity from one to four words while writing from the top to the bottom of the page. When she reached the bottom of the page, she returned to the middle and placed the closing there, along with an additional message (see Figure 5-15). This unique spacing of her message only occurred in Alice's writing for approximately two weeks.

Letter Size. The size of Alice's writing was appropriate for the 5/16" guidelines found in her spiral notebook. Except for the entry on September 21, which had one line of 3/4" letters (see Figure 5-4), Alice used a 5/16" size for capital letters and 1/4" for lowercase letters in both notes and journal entries. In a few instances, both capitals and lowercase forms were the same size, but usually the capitals were conventionally larger in size (see Figure 5-8). During the last segment the size varied by a decrease of approximately 1/4" on various pages. When Alice experimented with cursive writing she used the largest letters possible to fit the 5/16" guidelines (see Figure 5-11). She made a miniature booklet and put tiny 1/4" and 1/8" letters in it, except for the title of the story THE SUN and a word she wanted to emphasize, HOT (see Figure 5-14).
Capital and Lowercase Letters. 1 Alice could print all the manuscript capital and lowercase letters when the study began. During the last six weeks of the school year, Alice began to experiment with cursive letters. The second graders were learning cursive letter formation, and Alice was one of several first graders who wanted to use this "grown-up" way of writing.

During the entire year, Alice's use of capital and lowercase letters was highly conventional. During the first segment whenever she substituted capitals for lowercase forms they were always in the initial or final position of a word. After that segment she only placed them in the initial position. Many of these substitutions occurred while writing letters where the capital and lowercase forms (Cc Oo Ss) were very similar as in PCoS (because) and cat, Cat (can't, cut) (see Figure 5-27). She also used the capital L in the initial position whenever she wrote Like or LOVE (see Figures 5-7 and 5-6), although she used the lowercase form l in the medial eleyst, (unless) and final positions, School (School) will (will) near the end of the study (see Figure 5-6).

Alice placed capital letters in the initial position of words in the beginning segment in what first appeared to be a random order. On September 10, she capitalized How, Are and Doing. The How and Doing were on the left margin, but Are was in the middle of the line (see

---

1. In this section the child's examples in the text are written using the capital or lowercase form rather than all capitals, as used in the remainder of the text.
Figure 5-2). On September 16 she capitalized the beginning of two sentences, I am fine and How are you, while leaving the other two beginnings in lowercase. However, she consistently capitalized the initial letters of all names, Miss Milz, Alice, Elinor and Grace S____ as well as the word Name (see Figure 5-8). On October 1, she used a capital letter to begin each word except for monkey bars. The m in monkey was a lowercase form but was made in a size suitable for a capital letter (see Figure 5-27). The last entry in this segment had the same large lowercase form, m for mom and my while she capitalized I, Like and Tchr (teacher), which was similar to the first entry (see Figure 5-28).

During the second segment she continued to capitalize names of people she knew (see Figure 5-21), her state, Michigan (see Figure 5-24), the months (see Figure 5-9) and holidays (see Figure 5-25). She used capital letters to emphasize the words Very, Very (very, very) as well as beginning dependent clauses with a capital letter, Becawse (because) (see Figure 5-5). With these exceptions, all other letter formations usually were conventional.

During the last segment, Alice began most sentences with lowercase letters, except if she began with the personal pronoun I (see Figure 5-6). She continued to capitalize names (see Figure 5-22). Even as she learned the cursive formation of the letters, she capitalized all the names of the months (see Figure 5-11) although she used a lowercase letter to begin the sentence.

The changes in Alice's use of lowercase and capital forms can be seen by looking at Figure 5-29, which lists the percentages of
Figure 5-29. Percentage of capitals and lowercase letters used by Alice (6:2-6:9) during the 3 segments.
conventional and non-conventional usage. During the first segment Alice used capital (92%) and lowercase (94%) appropriately most of the time. As Alice wrote, she used forms that she frequently already controlled. The capital letter usage increased to 96% during the second segment, while 93% of the lowercase letters were conventionally used. The letters which were not conventional were only placed in the initial position. During the third segment, Alice was taking many risks in learning new cursive forms of the letters, as well as greatly increasing her production of writing. She substituted more lowercase forms for capitals in this segment than at any other time, although she still used capitals conventionally 76% of the time. Lowercase letter conventions remained high, at 94% (see Figure 5-29).

Spelling. Alice's developing use of the spelling system can be described with the help of the profile in Figure 5-30 of the percentage of words that Alice always spelled conventionally each day of the three segments. In determining the daily percentage, each particular word was considered only once. For example, on September 23 Alice wrote 38 words in two letters, one to her teacher and a copy addressed to the school principal. Only 15 were different words, the others being used more than once. The word is was used 8 times conventionally, while something was used 6 times, always in an invented form. The other 13 words were always spelled conventionally either 1 or 2 times. Thus 14 out of 15 different words (93%) were spelled conventionally that day (see Figure 5-26). Figure 5-30 summarizes Alice's daily percentages of conventionally spelled words in the three segments.
Figure 5-30. Daily profile of Alice's conventional words (6:2-6:9).
Overview of the Three Spelling Segments

During the first segment Alice wrote many ritualistic questions and simple short sentences where she controlled the spelling. Her lowest percentage of conventional spellings (69%) was on October 1, when she wrote the most complex sentence of the entire segment. Alice spelled all words conventionally on over half of the days in this segment. Overall she used 71 different words in the first segment of 200 words. Fifty-eight (81%) of the 71 words were always conventionally spelled (see Figure 5-30).

During the second segment, Alice never produced less than 88% conventionally spelled words for any day. She wrote 113 different words in the middle segment of 300 words, of which 100 (84%) were always conventionally spelled. On 6 days of the 13, Alice spelled every word conventionally (see Figure 5-30).

Alice wrote the third segment of 500 words over a five-day period. No day had 100% conventionally spelled words, though she wrote 181 different words of which 132 (72%) were always conventionally spelled. Alice moved from single questions or declarative statements in her messages to cohesive, complex paragraphs. In doing this, she used many words perhaps only once or twice, usually in invented form. The words she used frequently were spelled conventionally. The daily total of conventionally spelled words never dropped below 78% during this segment. The invented spellings will be examined in more detail later in this section. Alice demonstrated that she was able to write the words she needed to complete a message she wanted to produce (see Figure 5-30).
Further analysis of the thousand-word sample revealed that Alice used 20 words ten times or more each. The use of these 20 words over and over again composed 45% of Alice's thousand-word sample. Fourteen of these words were spelled conventionally throughout the whole study and demonstrate her control over these high-frequency words. Even the second lowest of the high-frequency words, APRIL, is spelled conventionally 90% of the time. Table 5-7 ranks these words, the number of times used, and how often they were spelled conventionally (see Table 5-7).

A picture of Alice's developing use of the spelling and orthographic system can be seen by looking at the writing that Alice did in each individual segment.

**Segment 1**

As Alice's writing samples were generated using ritualistic questions or short statements, she usually used conventional spelling. Except for two words, P COS (because) (see Figure 5-27) and TCHR (teacher) (see Figure 5-28), there was only a 1-letter difference in any invented spelling in this segment.

The sample on October 1 shows that when Alice did reach out to produce new words, she relied on strategies similar to those of Read's (1975, p. 49) young spellers. When Alice wrote P COS, her spelling was very close to phonetic accuracy. The B and P are both bilabial stops, the P voiceless and the B voiced. S and Z are alveolar fricatives but share a similarity to B and P in that S is voiceless and Z voiced (Dale, 1976, p. 200). It is interesting to note that she chose the
Table 5-7. Ranked list of Alice's high-frequency words (used 10 or more times.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Word</th>
<th>Times Used</th>
<th>% of Times Spelled Conventionally</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I</td>
<td>65</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>LIKE</td>
<td>41</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>YOU</td>
<td>50</td>
<td>97</td>
</tr>
<tr>
<td>4</td>
<td>AND</td>
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<tr>
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<td>IT</td>
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<td>MILZ</td>
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<td>92</td>
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<td>17</td>
<td>ARE</td>
<td>13</td>
<td>100</td>
</tr>
<tr>
<td>18</td>
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<td>11</td>
<td>90</td>
</tr>
<tr>
<td>19</td>
<td>DO</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>19</td>
<td>FUN</td>
<td>10</td>
<td>100</td>
</tr>
</tbody>
</table>

Top 20 Words 453 = 45% of Alice's Writing Sample
voiceless forms for both, with the S having closer graphic similarity to the conventional form of because than the P.

The word CAT (can't) omitted the pre-consonantal nasal N, a phenomenon described by Read (1975, p. 55). Alice also used the characteristic of homography, as she was content to represent several words with the same spelling, CAT (can't and cut), GO (go and got) (Read, 1975, p. 50).

Table 5-8 lists the 13 words showing the invented form and number of times these words were used as compared to overall use, both in the first segment and the entire sample.

**Segment 2**

In Segment 2, Alice used 13 invented spellings which were represented by 12 (11%) of the 113 different words used during the second segment. Each invented form, such as INCHIS (inches) was only used once or twice during segment 2. Five of the words were being shifted back and forth between invented and conventional spellings (see Table 5-9).

An examination of the words BECAWSE (because) (see Figure 5-5) and TECHER (teacher) (see Figure 5-25) reveals how much these words had moved toward conventional forms as compared with their spelling in segment 1, PCOS (because) (see Figure 5-27) and TCHR (teacher) (see Figure 5-28). BECAUSE was also spelled conventionally four times in segment 2.

Alice's use of TECHER on January 20 is the last time that she wrote teacher during the thousand-word sample. In the non-analyzed
Table 5-8. Alice's invented spellings from segment 1.

<table>
<thead>
<tr>
<th>Conventional Form</th>
<th>Invented Spelling</th>
<th>Times in Entire Sample</th>
<th>Times in Segment 1</th>
<th>Times Invented in Segment 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>BECAUSE</td>
<td>PCOS</td>
<td>9</td>
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</tr>
<tr>
<td>CAN'T</td>
<td>CAT</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>CUT</td>
<td>CAT</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<td>FORST</td>
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<td>1</td>
</tr>
<tr>
<td>GOT</td>
<td>GO</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>IT*</td>
<td>AT</td>
<td>19</td>
<td>6</td>
<td>1</td>
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<tr>
<td>MAY</td>
<td>MAR</td>
<td>3</td>
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<td>1</td>
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<tr>
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<td>ARE</td>
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<td>2</td>
<td>2</td>
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<td>SOMETHING</td>
<td>SOMTING</td>
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<td>6</td>
<td>6</td>
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<tr>
<td>TEACHER</td>
<td>TCHR</td>
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<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TOO</td>
<td>TO</td>
<td>3</td>
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<td>2</td>
</tr>
<tr>
<td>YOU*</td>
<td>YOY</td>
<td>50</td>
<td>10</td>
<td>1</td>
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</table>

13 Words

* On Alice's high-frequency list.
Table 5-9. Alice's invented spellings from segment 2.

<table>
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<tr>
<th>Conventional Form</th>
<th>Invented Spelling</th>
<th>Times in Entire Sample</th>
<th>Times in Segment 2</th>
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</thead>
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<td>2</td>
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<td>JANUARY*</td>
<td>JANUAY</td>
<td>15</td>
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<td>1</td>
</tr>
<tr>
<td>MILZ*</td>
<td>MLIZ</td>
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<td>MUCH</td>
<td>MACH</td>
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<td>1</td>
</tr>
<tr>
<td>OUR</td>
<td>ARE</td>
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<td>1</td>
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<td>SNOWMEN</td>
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<td>1</td>
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<tr>
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<td>SPECLEL</td>
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<td>TODD</td>
<td>TADD</td>
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<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

12 words

* On Alice's high-frequency list.
texts between segments 2 and 3, she invented the word six more times, using the following forms:

2/12 TEECHER
2/24 TEYCHER
3/23 THEEYCHER TEECHER
3/28 THERECHERE THIEEECHERE

The entries on March 23 and 28 both were written in cursive, and moved further away from the conventional form she previously used. She seems to be dealing with the long vowel sound of E as she begins to double the E, or use the EY form in the EA position. Her use of the final E in the March 28 entry could also indicate her attempt to represent this sound graphically.

All of the invented spellings only varied by one letter from the conventional spelling, except for two words, SNOWMANS (snowmen) and SPECLEL (special), which Alice wrote on January 4 and 6. The word SNOWMANS demonstrates Alice's control of morphological endings, as she made the noun snowman plural without realizing that this plural is an irregular form.

Segment 3

In Segment 3, as Alice wrote the 500 words in the third segment, she used 67 invented spellings which were represented by 46 (25%) of the 181 different words used in the segment. The majority of these invented spellings were words of low frequency and were only used
during this segment. In 85% of the invented spellings the difference was only one or two letters from the conventional form. The two words of high frequency were only invented once each, and were spelled conventionally in all other uses during the segment (see Table 5-10).

On April 25, Alice wrote all the months of the year in cursive as part of her journal entry. Five words at first appear to be invented spellings, but upon questioning Alice, three TUNE (June), ACTABER (October) and NAVEMBER (November) resulted from problems in letter formation and actually were spelled conventionally. Only FABERUARY (February) and AGESEAT (August) remained as invented spellings, although Alice had used both in the second segment conventionally and had written February conventionally many times during that month. It may be that in attempting cursive letters, a new form of writing, Alice is demonstrating Clay's (1977, p. 337) statement, "Sometimes established habits seem to become disorganized when a new feature requires attention" (see Figure 5-11).

Graphic and phonological cues played a significant role as Alice wrote words that she did not use very often. On April 26, Alice used ARE (our), which is the way that children in the Way School area pronounce OUR (see Figure 5-6). On April 27, PLEAS (please) and BECAUE (because) are very similar to the conventional spelling, while SEIS (SAYS) and TOCK (talk) reflect phonological classifications (see Figure 5-22). Because was also spelled conventionally once during this segment, along with the two invented spellings. A change from P COS (see Figure 5-27) to BECAWSE (see Figure 5-5) to BECAUE (see Figure 5-22) can be seen. Her final spellings were only one letter differ-
Table 5-10. Alice’s invented spellings from Segment 3.

<table>
<thead>
<tr>
<th>Conventional Form</th>
<th>Invented Spelling</th>
<th>Times in Entire Sample</th>
<th>Times in Segment 3</th>
<th>Times Invented in Segment 3</th>
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<td>AFDERNOON</td>
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<tr>
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<td>5</td>
<td>4</td>
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<td>AMERICA</td>
<td>AMAIRACA</td>
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<td>1</td>
<td>1</td>
</tr>
<tr>
<td>AND*</td>
<td>A</td>
<td>34</td>
<td>13</td>
<td>1</td>
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<td>APRIL*</td>
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<td>BUTAFAULIE</td>
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<td>1</td>
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<td>1</td>
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<tr>
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<td>1</td>
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<td>KNOW</td>
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<td>1</td>
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<td>1</td>
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Table 5-10 -- Continued

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<th>Conventional Form</th>
<th>Invented Spelling</th>
<th>Times in Entire Sample</th>
<th>Times in Segment 3</th>
<th>Times Invented in Segment 3</th>
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<td>RITE</td>
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<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

46 words

* On Alice's high-frequency list.
ent from the conventional form. During this segment, Alice was not afraid to take a risk to try a spelling, and she consequently used more invented spellings than in the other segments. It seems as if invented spellings were one more step in a rapid expansion of Alice's writing ability.

Summary

During the three segments, Alice did not spell randomly or write unrelated strings of letters and the words that she used frequently were often spelled conventionally. If the word was not conventionally spelled, it was very similar and reflected the application of graphic and phonological knowledge that Alice had acquired. A look at the words she used frequently reveals the lowest percentage was nice (83%), with the majority spelled 100% conventionally. By Segment 3, Alice was spelling words in her environment such as nice and my conventionally, although she did not use them frequently. Table 5-11 lists Alice's 20 high frequency words merged with those of the other six subjects, and shows the percentage of times these words were spelled conventionally in each segment and in the overall sample (see Table 5-11).

Punctuation. Over the duration of the study, Alice created 267 opportunities to use 10 different kinds of punctuation but omitted 57% of them. She inserted 15 marks, mainly periods, in places where punctuation was not needed. Alice substituted another mark (for example, a period for a comma or a question mark) in 4% of the places where punctuation is needed. She did place 37% conventionally, with the majority being commas and periods. Table 5-12 shows the 10 kinds
Table 5-11. Alice's high-frequency words.

<table>
<thead>
<tr>
<th>High-frequency Words Merged with Alice's High-frequency List (Alphabetized)</th>
<th>Alice's Seg. 1</th>
<th>Total Times Used by Alice</th>
<th>Alice's % of Conventional Spellings</th>
<th>Combined Seg. 1</th>
<th>Seg. 2</th>
<th>Seg. 3</th>
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</tr>
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</tr>
<tr>
<td>LOVE</td>
<td>7</td>
<td>19</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>ME**</td>
<td>7</td>
<td>-</td>
<td>100</td>
<td>-</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>MILZ</td>
<td>16</td>
<td>14</td>
<td>92</td>
<td>100</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MISS</td>
<td>10</td>
<td>18</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>MY**</td>
<td>4</td>
<td>100</td>
<td>100</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>NICE**</td>
<td>6</td>
<td>100</td>
<td>100</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>THE</td>
<td>10</td>
<td>18</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>TO</td>
<td>6</td>
<td>22</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>VERY*</td>
<td>13</td>
<td>15</td>
<td>100</td>
<td>-</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>YOU</td>
<td>3</td>
<td>50</td>
<td>97</td>
<td>90</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

* Alice's list only.
** Merged list only.
Table 5-12. Alice's use of punctuation over three segments.

<table>
<thead>
<tr>
<th>Kinds of Punctuation</th>
<th>Opportunities Over Three Segments</th>
<th>Alice's Usage*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>I</td>
</tr>
<tr>
<td>Period</td>
<td>99</td>
<td>63</td>
</tr>
<tr>
<td>Comma</td>
<td>137</td>
<td>77</td>
</tr>
<tr>
<td>Question Mark</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>Exclamation Point</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Quotation Marks</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Apostrophe</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Hyphen</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Colon</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Elipsis</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Dash</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

267 (100%) 153 (57%) 15 (4%) 12 (2%) 2 (37%)

* O = Omission
I = Insertion
S = Substitution
M = Misplacement
C = Conventional Use
of punctuation marks that Alice might have placed in the thousand-word sample and what she actually used to write (see Table 5-12).

During the first segment, Alice could have used the following punctuation marks: period, comma, question mark, apostrophe, and hyphen. Table 5-13 shows the use Alice made of punctuation in this segment. She placed 31% of these marks conventionally, but also relied on spacing to end a sentence, which caused 67% of her punctuation to be omitted. An example of this is found on September 23 when Alice used a period to end sentences that terminated in the middle of a line, although she did not place a period at the end of the message where spacing could meet her needs. She also omitted the comma after the salutation and closing (see Figure 5-26). On October 1, she ended the first clause with a period, but did not place one at the end of the sentence. When she wrote the date, October 1, 1976, she used the comma conventionally between the day and year, as she probably copied the date from the chalkboard (see Figure 5-27).

As she wrote ritualistic questions, she added question marks. The first note she wrote had the mark inserted on the first line of the message, possibly indicating that she was going to terminate the question with the words HOW ARE YOU? but then decided to continue with DOING TODAY, or even to attempt to add a second question, HOW ARE YOU DOING TODAY (see Figure 5-2). The second question would have used the phrase from the first question and practiced a word economy similar to Tagg’s letter economy (I, T) of September 17 (see Figure 5-39). On September 29, she wrote a similar note using a question with a conventionally placed question mark at the end (see Figure 5-3).
Table 5-13. Alice's use of punctuation within segment 1.

<table>
<thead>
<tr>
<th>Kinds of Punctuation</th>
<th>Opportunities Within Segment One</th>
<th>Alice's Usage*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>O</td>
<td>I</td>
</tr>
<tr>
<td>Period</td>
<td>24</td>
<td>15</td>
</tr>
<tr>
<td>Comma</td>
<td>25</td>
<td>21</td>
</tr>
<tr>
<td>Question Mark</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Apostrophe</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Hyphen</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

57 (100%)  38 (67%)  3 (2%)  1  18 (31%)

* O = Omission
I = Insertion
S = Substitution
M = Misplacement
C = Conventional Use
During the second segment, Alice used the same punctuation marks as in the previous segment, but added the use of the exclamation point in her letter to a prospective penpal (see Figure 5-24). She still omitted 51% of the needed punctuation. Half of the omissions were periods (see Table 5-14). Commas were used appropriately more than any other mark. Of the 56 possible places for commas, Alice used 36 (64%) conventionally. She used several series constructions during the segment, and placed commas as needed, although she did not end the series with a period. Commas were also used conventionally between the day and year in the date (see Figure 5-9). She did not use a comma after the salutation or closing of her notes (see Figure 5-25).

Alice's punctuation during the third segment increased to 9 different kinds to meet the increasing complexity of her writing. The majority of the opportunities were for the use of the period and the comma (see Table 5-15). Periods were used to end most pieces of writing conventionally. They also were inserted between phrases in a sentence I LIKE YOU, VERY MUCH (see Figure 5-22). She substituted periods where commas would have been appropriate as she attempted to join two clauses into a compound sentence, REMEMBER I LIKE A LOT. AND I WOT FORGET (Remember I like you a lot, and I won't forget) (see Figure 5-6). Tagg made the same use of periods in his writings as he made this transition from simple to compound sentences (see Figure 5-71). During the third segment Alice omitted commas in a series as she attempted to write in cursive, though she used them in the date as in previous segments (see Figure 5-11).
Table 5-14. Alice's use of punctuation within segment 2.

<table>
<thead>
<tr>
<th>Kinds of Punctuation</th>
<th>Opportunities Within Segment Two</th>
<th>Alice's Usage*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>O</td>
<td>I</td>
</tr>
<tr>
<td>Period</td>
<td>27</td>
<td>24</td>
</tr>
<tr>
<td>Comma</td>
<td>56</td>
<td>19</td>
</tr>
<tr>
<td>Question Mark</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Exclamation Point</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Apostrophe</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Hyphen</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

| Total                 | 87 | 44 | 3  | 1  | 0  | 42 |
|                       | (100%) | (51%) | (1%) | (1%) | (48%) |

* O = Omission
I = Insertion
S = Substitution
M = Misplacement
C = Conventional Use
Table 5-15. Alice's use of punctuation within segment 3.

<table>
<thead>
<tr>
<th>Kinds of Punctuation</th>
<th>Opportunities Within Segment Three</th>
<th>Alice's Usage*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>I</td>
</tr>
<tr>
<td>Period</td>
<td>48</td>
<td>24</td>
</tr>
<tr>
<td>Comma</td>
<td>56</td>
<td>37</td>
</tr>
<tr>
<td>Question Mark</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Exclamation Point</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Quotation Mark</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Apostrophe</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Colon</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Elipsis</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Dash</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>123</th>
<th>71</th>
<th>9</th>
<th>10</th>
<th>2</th>
<th>40</th>
</tr>
</thead>
<tbody>
<tr>
<td>(100%)</td>
<td>(57%)</td>
<td>(8%)</td>
<td>(2%)</td>
<td>(33%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* O = Omission  
I = Insertion  
S = Substitution  
M = Misplacement  
C = Conventional Use
On April 28 Alice wrote a long story as part of a note which called for many kinds of new punctuation. She used exclamation points for emphasis. A colon was used conventionally to address the note to the teacher. A comma was used in a date within the text of the note in addition to her normal use of the date in the piece of writing. An elipsis was used after the word but in two places. She tried to place apostrophes in contractions IS'NT and IS'NIT (isn't) (see Figure 5-14).

As the study ended, Alice was exploring new uses for punctuation as her writing increased in its complexity. She was aware of these marks as used in her environment, and was placing them in her own writing.

Overview of Alice's Construction of Meaning Within Written Text

Alice entered first grade able to write a message represented by letters of the alphabet. Her early messages were ritualistic and very conventional in form, HOW ARE YOU, but they made sense to a reader just as speakers often use these forms to interact with others ritualistically in a formal setting. However, Alice began to write from a personal perspective shortly after the study began, and began to use invented spellings as she needed to use words which she did not already control. Alice did not often use art to present a message, though she did make pictures occasionally during the study to complement her text in the construction of meaning.

Alice used the conventions of the English writing system to make her writing meaningful to the reader. Her early writing was highly conventional. She used letters appropriate to the 3/8" lines of
the paper that the school provided. These same size letters were used even on unlined paper. As her writing became more complex, her rate of error increased. When she tried to use cursive instead of manuscript letters, she substituted many lowercase letters where she had previously placed capital letters (see Figure 5-11). She used capital letters for names and the personal pronoun I conventionally throughout the study. Punctuation usage increased from 31% to 48% by the second segment but decreased to 33% in the last segment. Commas in a series were omitted in the third segment as Alice changed from manuscript to cursive. She began to use new structures: contractions, exclamations, elipsis, and thus tried to use the appropriate punctuation marks as each need arose (see Figure 5-14).

Alice learned how to use various types of writing to suit her purposes. She used DEAR _____, LOVE, ALICE in forming a personal note. Journal entries were dated and recorded information from Alice's experiences. Stories ranged from fiction with a traditional story frame to reports of factual information. Each of these types developed from single simple sentences with little cohesion to compound or complex sentences with cohesive unity.

Alice could be described as a sensitive, curious child who learned to take risks in order to write what she wanted. Her rate of error in her writing increased as she wrote more and focused on what she needed or wanted to communicate. In the last days of the study, she used cursive letters as well as invented spelling and punctuation she had never written before. In so doing she increased both the
amount or daily rate of writing as well as the overall complexity of what she wanted to say.

The letter of April 6 in Figure 5-31 expressed the sensitive nature of Alice as a person, and revealed her intense curiosity as she tried to figure out how Miss Goodman traveled to the school. She knew Miss Goodman traveled an hour to come to Way School but that Arizona was farther away than an hour. However, she did not realize Miss Goodman also had a Michigan home. She was able to integrate her developing control over all the language cueing systems in order to construct her meanings—seeking answers to significant questions while expressing concern and affection.

Subject: Tagg

General Background

Tagg was six years two months at the start of first grade, having turned six on July 2, 1976. During the study, Tagg lived in a single-family home with his parents and two brothers. He is the oldest of three boys and a baby girl, who joined the family shortly after the close of the study. Tagg’s parents were both from Michigan and had graduated from college. His father was self-employed in a family business, and the mother had worked as a personnel manager for a small firm before retiring. At the end of first grade the family moved to a new home near another school in the Bloomfield Hills School District.

Tagg is a friendly yet quiet child who worked independently while moving quietly from one project to another. He did not initiate
Dear Miss Goodman,

I like you. Gosh, it must be hard to come from all the way from Arizona. I know it takes an hour to get here. Do you take a plane with your car to get here. Please do not go. Please write back. Love, Alice S.

4-6

Dear Miss Goodman,

I like you. Gosh, it must be hard to come from all the way from Arizona. I know it takes an hour to get here. Do not go. Please write back. Love, Alice S.

The way from your family to Arizona I know it takes a plane and a car to get there. Please do not go. Back to you Alice.
a conversation with adults, but was very pleased if they commented on what he was doing. He then proceeded to share his work.

According to the parent survey and conversations with his mother, Tagg's home environment included many materials to support literacy. Children's books and magazines as well as a children's encyclopedia provided reading material. Writing supplies such as notebooks, pens, pencils and crayons were present. Both parents read and wrote in the home and job settings. His father wrote promotional materials related to his job at home. Tagg's father preferred nonfictional reading material, while his mother liked novels as well as assorted magazines. Tagg began to show interest in reading and writing by three years, six months. At kindergarten age, he would read isolated words in picture books to his mother, as well as billboard or traffic signs that he knew when he and his parents were out somewhere together. He began to write his first name in nursery school and enjoyed writing words that his parents and aunt suggested he write. They did not provide conventional spellings, and reported that the words, written on a small chalkboard, were represented by consonants with the vowels omitted. Tagg did not write a whole sentence beyond I LOVE YOU until he entered first grade. His mother related her pleasure in Tagg's early writing: "We thought he was terrific." According to teacher observation during the first weeks of school, Tagg was unable to read continuous text in a picture or story book as he entered first grade.
Tagg as a Writer

Quantitative Data on Writing. Tagg wrote 134 pages over the nine months of the study. The thousand-word sample used for in-depth analysis for this study included 54 of these pages. The entire writing bank was composed of 2,526 words found in 151 spontaneous pieces of writing done in school or at home. The thousand-word sample represented 39% of his running words, or 67 pieces of writing. The major amount of writing (95%) occurred in school, while 5% was produced at home. Of the six selected students, Tagg completed the least amount of writing.

Types of Writing. During the time segments in which he produced the thousand-word sample, the majority of Tagg's writing was composed of journal entries. He also wrote notes and produced one story that he wanted typed into a classroom book. Figure 5-32 shows the percentages represented by each type of writing.

Notes

During the first segment, Tagg wrote many notes. The first piece of writing that Tagg produced was a note to his teacher. He used the form of a note with a salutation and signature (see Figure 5-33). Two weeks later, he used a formal opening, DEAR MISS MILZ, all on the first line, and a closing, LOVE, along with his signature, each on a separate line. Each line was left justified (or flush on the left margin) (see Figure 5-34).

During the year, dittoed note paper was available within the classroom. On occasion, Tagg used it to produce notes, in which he filled in the recipient's name, as well as his own, along with his
Figure 5-32. Types of writing used by Tagg (6:2-6:9).
Figure 5-33. Note, September 13 (Tagg, 6:2).

(Miss Miss Milz Miss Milz,
I like being in your class.
Tagg)
Figure 5-34. Note, September 30 (Tagg, 6:2).

(Dear Miss Milz,
   I like you being my teacher.
   Love,
   Tagg)
message (see Figure 5-35). Though he continued to use the style of a personal note, he sometimes chose the opening and closing TO and FROM rather than DEAR and LOVE before writing the recipient's name. He may have been influenced by the form of the classroom note paper used in Figure 5-35 (see Figure 5-36).

Tagg's notes were always written separately and were directed to an individual, such as this one to his grandmother. While Alice used short ritualistic statements which did not reflect her personal feelings (see Figure 5-3), Tagg's notes allowed him to interact with his readers (see Figure 5-37).

Later in the second and third segments, Tagg's notes served to carry more complex messages. His purposes became more varied, so he used more sentences as well as more than a single thought. In Figure 5-38 not only does he tell the teacher how he felt about her, but he could express a conventional greeting for a holiday and provide the reader with some particular information about his family. A dramatic development is seen when this note is compared to the note on October 2 (see Figure 5-37).

**Journal**

Although Tagg wrote many notes during the school year, the majority of his writing was produced in his journal. His first entries were written during the second week of school. He dated each entry, though on some days, such as September 23, he did not know what he wanted to write. These early journal entries were often written after Tagg chose cards from a story starter file box with open-ended sentences and a magazine picture on them, such as "At the dentist's
To: Miss Milz  
From: Tagg  
Message: you are a nice teacher. I liked Conant.

Figure 5-35. Note, April 29 (Tagg, 6:9).
Figure 5-36. Note, April 26 (Tagg, 6:9).

(To Dr. Goodman,
I hope you have a nice vacation.
Tagg)
(Dear Nanny,
I think that you are a very nice grandmother.)
Dear Miss Milz,

I like you very, very, very much. I like you being my teacher very, very much. I hope that you have a nice Valentine's Day. I have Hap in my family. I have Mitch in my family, and I have my mom and dad.

Tagg
office, I ________." During this same time period, he wrote entries which told of his personal feelings or experiences, I LK APLZ (I like apples), or SMTIMSIKNTTIM (Sometimes I can tell time) (see Figure 5-39). Tagg's writing developed as he wrote about experiences that had occurred in his environment as he remembered or lived them. Some of these happenings were riding his bike (see Figure 5-69), getting ready for and/or celebrating holidays (see Figure 5-48), and finding a caterpillar while at play (see Figure 5-67). He also reported factual information, sometimes copying information placed on the chalkboard for class news (see Figure 5-40).

In January, Tagg answered a question about his vacation play activities. He then continued to respond to questions or statements placed in the notebook by his teacher, beginning a dialogue between himself and persons who responded to his writing (see Figure 5-41).

He continued to record information, though it was learned during class discussions, not copied from the chalkboard as in the first segment. One such entry was recorded after a discussion of important days in the month of February (see Figure 5-42).

During the last segment, he combined reporting of his feelings with personal experiences in his journal entries (see Figure 5-43).

**Stories**

When Tagg decided to produce a book to be read by others in the classroom, he wrote in a style similar to his journal entries. He used lined paper, except that it was a loose sheet instead of being bound in the spiral notebook. He placed the piece of writing in a box labeled **To Be Published** when it was finished.
Figure 5-39. Journal, September 16-24 (Tagg, 6:2), photo-reduced.

(September 16
   My name is Tagg.

September 17
   At the dentist's office, I got my teeth cleaned. I wish I had a guitar. I like apples.
   Monday, September 20, 1976
   When I see a stop sign, I stop.

September 21
   Sometimes I can tell time.

September 22

September 23

September 24
   When I went to . . . September)
October 11, 1976
Today is Columbus Day

Figure 5-40. Journal, October 11 (Tagg, 6:3).
(Today is Columbus Day.)
Did you play with Dad at home or at your friend's house? MM.

January 17, 1977
Will I W
Now My Friends.
END SOME TIMES I PLAY WITH MY DAD.

Figure 5-41. Journal, January 7 (Tagg, 6:6).

(Well, I went to my friends, and sometimes I play with my Dad.)
February 1

George Washington was The First President

And I like Him.

Figure 5-42. Journal, February 1 (Tagg, 6:6).

(George Washington was the first president, and I like him.)
April 18, 1977

I like Spring.
Spring is Warm
I like to
Play outside.
it is Warm.

Figure 5-43. Journal, April 18 (Tagg, 6:9).

(I like Spring. Spring is warm. I like to play outside. It is warm.)
Altogether, Tagg wrote 3 stories during the year, but only one was in the thousand-word sample. To show the development of this type of writing, the other two samples from the entire data bank are described in this section. None of the stories actually used a traditional story format. Basically, they were factual accounts of Tagg's knowledge about Superman, dinosaurs, and trucks.

The first story was a Superman book which consisted of four sequential events. There was no language used to relate the events nor to end the story. Instead, Tagg chose to make four simple declarative sentences (see Figure 5-44).

The dinosaur story contained the most cohesive story development. There was an opening sentence stating that dinosaurs lived long ago. Reasons were listed as to why dinosaurs died, and the concluding statement described their disappearance. The sentences were unified by one idea, and there was a movement of thought from one sentence to another (see Figure 5-45).

Tagg's last story was not as cohesive as the dinosaur one. He began by writing two simple statements about trucks but moved to a personal statement about his own family moving and using a moving van to accomplish this job. He stopped writing at this point, and he needed teacher assistance to bring the story to an end (see Figure 5-46).

Summary

To summarize Tagg's usage of the various types of writing, Table 5-16 shows that Tagg wrote approximately the same amounts during each segment in the two categories of journal entries and notes.
Figure 5-44. Story, March 7 (Tagg, 6:8), photo-reduced.

(The Book about Superman
Superman was fighting Joker,
Superman was winning,
The Joker jumped onto Superman.
Superman flipped him over.)
The dinosaurs lived long ago. Lots of them died because they did not have enough water in their land. Some dried out, and some didn't have enough food.

The first dinosaurs appeared about seventy million years ago. The last of them disappeared.
Trucks carry lots of things. People make them. We are moving and a moving van is taking our stuff.

Figure 5-46. Story, April 12 (Tagg, 6:9), photo-reduced.

Trucks carry lots of things. People make them. We are moving and a moving van is taking our stuff.

Figure 5-46. Story, April 12 (Tagg, 6:9), photo-reduced.

Trucks carry lots of things. People make them. We are moving and a moving van is taking our stuff.

People make lots of things. We are moving and a moving van is taking our stuff.
Table 5-16. Types of writing Tagg used during the three segments.

<table>
<thead>
<tr>
<th>Segment</th>
<th>Journal</th>
<th>Notes</th>
<th>Stories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segment 1</td>
<td>80%</td>
<td>20%</td>
<td>0</td>
</tr>
<tr>
<td>(Sept. 13-Oct. 13)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Segment 2</td>
<td>83%</td>
<td>17%</td>
<td>0</td>
</tr>
<tr>
<td>(Jan. 5-Feb. 1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Segment 3</td>
<td>75%</td>
<td>21%</td>
<td>4%</td>
</tr>
<tr>
<td>(March 24-April 29)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Tagg's interest in stories for classroom publication is not reflected in the table, except for his final story which was the only one written during the last segment. It is represented by the 4% figure.

**Functions of Writing.** Tagg's language functions tended to vary according to the particular type of writing he chose to use. The major types of writing that Tagg chose were the journal entry and notes. Notes, because of their nature, were interactional in their function. The journal entries showed the greatest variety in their functions: personal, interactional, and informative. Examination of the one story that Tagg wrote in the thousand-word sample reveals the similarity in function to journal entries written at the same time. Both types of writing employ personal and informative functions (see Figures 5-46 and 5-51). Table 5-17 shows the percentage of functions that Tagg used for each type of writing.

When comparisons of Tagg's functional use of writing are made over the three time periods, a change from a high proportion of personal writing to similar proportions of personal, interactional and informative writing can be seen, indicating more flexibility in Tagg's uses for writing. Table 5-18 lists these percentages.

In examining Tagg's writing, shifts in function become apparent. Tagg's early journal entries contained single statements employing the personal function (see Figure 5-47). Many early notes were interactional as he wrote to his teacher and other trusted adults (see Figure 5-37). On October 4, his journal entry contained two statements with two different functions—personal and informative. This was the only piece of writing during this time which had two functions.
Table 5-17. Comparison of three types of writing as to function used by Tagg (by percentage).

<table>
<thead>
<tr>
<th>Function</th>
<th>Journal</th>
<th>Notes</th>
<th>Stories</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal</td>
<td>35</td>
<td>0</td>
<td>1</td>
<td>36</td>
</tr>
<tr>
<td>Interactional</td>
<td>14</td>
<td>22</td>
<td>0</td>
<td>36</td>
</tr>
<tr>
<td>Informative</td>
<td>27</td>
<td>0</td>
<td>1</td>
<td>28</td>
</tr>
</tbody>
</table>

100.0
Table 5-18. Writing functions used by Tagg during three time segments.

<table>
<thead>
<tr>
<th></th>
<th>Segment 1</th>
<th></th>
<th>Segment 2</th>
<th></th>
<th>Segment 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Times</td>
<td>%</td>
<td>Times</td>
<td>%</td>
<td>Times</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Used</td>
<td></td>
<td>Used</td>
<td></td>
<td>Used</td>
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<td>11</td>
<td>55</td>
<td>7</td>
<td>30</td>
<td>12</td>
</tr>
<tr>
<td>Interactional</td>
<td></td>
<td>6</td>
<td>30</td>
<td>10</td>
<td>44</td>
<td>13</td>
</tr>
<tr>
<td>Informative</td>
<td></td>
<td>3</td>
<td>15</td>
<td>6</td>
<td>26</td>
<td>14</td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td>20</td>
<td>100%</td>
<td>23</td>
<td>100%</td>
<td>39</td>
</tr>
</tbody>
</table>
Last night we had . . .
If I had four eyes I would be able to see more.

Figure 5-47. Journal, September 27-30 (Tagg, 6:2), photo-reduced.
Developmentally, it is important to note that Tagg was reaching out to use the informative function. As Halliday notes (1975a, p. 263), this function relates more to the environment than to the child, and therefore is a higher degree of development. The child is no longer constrained by the immediate situation to create meaning for someone who did not share the experience with him (see Figure 5-48).

During the next segment, Tagg began to respond to questions and statements placed in the journal by his teacher. As he used the interactional function in his writing, he also added information to elaborate on the teacher's statement. For example, when she wrote on the previous page, *I hope you had fun* he wrote, *I DID HAVE FUN*, and then he described what he had done (see Figure 5-49).

Sharing information also occurred in note writing, such as a letter sent to a penpal. Tagg used the informative function to provide information about Michigan as well as personal information which allowed him to interact with his new penpal (see Figure 5-50).

In the last segment he often combined the personal and informative functions in statements, such as in the April 5 entry when he is anticipating a holiday as well as providing information about it for the reader (see Figure 5-51). He also did this in his story of April 12 (see Figure 5-46).

**Audience.** Tagg's writing was directed to his teacher 86% of the time. When the school year began, two types of writing were introduced as part of the instructional environment—note writing and journal keeping (see Methodology section, Chapter 3). As a result of this, Tagg wrote six notes as well as 51 journal entries in the
Figure 5-48. Journal, October 4 (Tagg, 6:3).

(I like Halloween. I think that ghosts are going to be out on Halloween.)
I did have fun.
There was a big hill and Doug and me slid down it.

Great! M.M.

Figure 5-49. Journal, January 21 (Tagg (6:6).

(I did have fun. There was a big hill and Doug and me
slided down it.)
TO A first Grader

We Have Lots of Snow
In Michigan End it is white
Very White My Name is Tagg H it is Fun Living in Michigan Why Because it is Fun.

Figure 5-50. Note, January 13 (Tagg, 6:6), photo-reduced.

(To a first grader,
We have lots of snow in Michigan and it is white—very white. My name is Tagg H. It is fun living in Michigan. Why? Because it is fun.)
April 5, 1927. 4-5

Easter is Coming Soon and I like it. It is Fun.

On Easter Morning I wake up and get my basket and look For Easter eggs.

Figure 5-51. Journal, April 5 (Tagg, 6:9), photo-reduced.

(Easter is coming soon and I like it. It is fun. On Easter Morning, I wake up and get my basket, and look for Easter eggs.)
thousand-word sample to the teacher (see Table 5-19). Tagg expected her to read the notes and journal entries and looked forward to a written answer. He also was aware of the fact that he was a member of a classroom with many children in it, so he always signed his name to his notes to the teacher. However, when he wrote to his grandmother or other family members he did not always use an ending signature. He was aware of different needs for different people (see Figure 5-37).

During the second segment, Tagg indicated his growing awareness of an audience in several ways. On January 13, he wrote to a prospective penpal. He began by using a generalized opening, TO A FIRST GRADER, but he also interacted by asking a question after making a statement IT IS FUN LIVING IN MICHIGAN. WHY. He then realizes that the person in Arizona might not know and answers the question himself, BECAUSE IT IS FUN, which unfortunately does not give any new information (see Figure 5-50). At this time, Tagg began to make lists in his journal. On February 1, he lists the names of all the boys that he liked in the class, as well as the intended reader of the text (I LIKE YOU), showing his awareness of audience. The YOU could have referred to the teacher, as the journal was read by her each day. Another possibility was that his mother might be the reader as she did come to the class to listen to the children read, and Tagg would share his notebook with her (see Figure 5-52).

Syntactic Development. The length and complexity of Tagg's written text changed over the period of the study. During the first segment, Tagg wrote 18 T-units, with an average length of 8.94 words per T-unit. There were 32 clauses in the 18 T-units, which gave a
Table 5-19. Distribution of audience categories used by Tagg.

<table>
<thead>
<tr>
<th>Audience</th>
<th>Number of Writings</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>57</td>
<td>85</td>
</tr>
<tr>
<td>Known Adults</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Peers</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>General Audience</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Unclassified</td>
<td>1</td>
<td>1.5</td>
</tr>
</tbody>
</table>
6:16

I like Scott H.
I like Todd.
I like Jon.
I like Doug.
I like you.
I like David S.
I like David B.

Figure 5-52. Journal, February 1 (Tagg, 6:6).

(I like Scott H.
I like Todd.
I like Jon.
I like Doug.
I like you.
I like David S.
I like David B.)
ratio of 1.78 clauses per T-unit. He produced a total of 46 T-units in the second segment, from which an average length of 6.02 words per T-unit was determined. There were 57 clauses in the 46 T-units, for an average of 1.24 clauses per T-unit. During the last segment, 81 T-units were identified, with an average of 5.51 words per T-unit. The ratio of dependent clauses to main clauses, 1.26, was very similar to the middle segment of 1.24. Table 5-20 is a summary of the T-unit analyses performed on Tagg's writing. Each category reflects a decrease instead of an increase, yet other factors must be considered in describing Tagg's development of syntax.

**Syntactic Features**

Tagg's writing often began with the personal pronoun "I." His writing grew as he wrote about experiences that occurred in his environment as he remembered them. Though he generated ideas in the first person form, whenever he could find supportive resources he turned to them for help. These resources could be a nearby adult, date or news item written on the chalkboard in the classroom, or a story starter card. His beginning figure of 8.94 words per T-unit is high when compared to fourth graders, who, according to Hunt (1965, p. 56), wrote an average of 8.6 T-units, and may reflect this outside help. Hunt's fourth graders wrote under teacher supervision in a controlled environment, whereas Tagg's writing occurred in the busy milieu of a working classroom with interaction allowed between all participants. When Tagg wrote at home during the first segment, he asked for spelling assistance. These samples reflect definite word boundaries and conventional spellings, which are different from the
Table 5-20. T-unit analysis of Tagg's writing.

<table>
<thead>
<tr>
<th>Segment</th>
<th>Total No. of T-units</th>
<th>Words Per T-unit</th>
<th>Total No. of Clauses</th>
<th>Clauses Per T-unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segment 1</td>
<td>18</td>
<td>8.94</td>
<td>32</td>
<td>1.78</td>
</tr>
<tr>
<td>(Sept. 13-Oct. 13)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Segment 2</td>
<td>46</td>
<td>6.02</td>
<td>57</td>
<td>1.24</td>
</tr>
<tr>
<td>(Jan. 5-Feb. 1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Segment 3</td>
<td>81</td>
<td>5.51</td>
<td>102</td>
<td>1.26</td>
</tr>
<tr>
<td>(March 24-April 29)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
writing produced with no assistance (see Figure 5-33). A transition from total assistance occurred on September 17 as Tagg used an open-ended sentence that he found in his classroom to begin his writing, and then generated the remainder of the sentence to form one long T-unit, AT THE DENTIST'S OFFICE, I Got MY TEETH CLEANED (At the dentist's office, I got my teeth cleaned). On this same journal page, Tagg generated several sentences independently: I LIKE APPLES (I like apples), WHEN I SEE A STOP I STOP (When I see a stop sign, I stop), and SOMETIMES I CAN TELL TIME (Sometimes I can tell time). The decrease in the use of outside resources may explain the diminishing of clauses per T-unit and words per T-unit that occurred between the segments, in view of the fact that in segments 2 and 3 Tagg relied on his own generated sentences (see Figure 5-39).

Between segments 1 and 2, several things occurred which need to be mentioned in order to give a clearer picture of Tagg's development. In November, he added questions in his writing to involve the reader, although he still wrote in the first person to express his own feelings. This was shown in Figure 5-53 by his reference to Smokey Bear. Tagg also began to experiment with the use of contractions such as AREN'T and I'M. He joined three separate thoughts by the use of the conjunction AND, AN (and) to make one long sentence—a development from the simple sentences he first generated (see Figure 5-54).

In contrast to the use of resources besides himself in segment 1, during segment 2 Tagg relied on his own generated sentences. He was reaching out to build compound sentences, although he still formed the sentences as two simple sentences by using a period followed by AND and
I like Smokey the Bear. I'm glad that we have Smokey the Bear. Aren't you glad we have Smokey the Bear?

November 11, 1976

Have you glad we Have Smokey The bear Glad. That I'm Smokey The bear
Figure 5-54. Note, December 20 (Tagg, 6:5), photo-reduced.

(Dear Aunt Linda,
I hope that you have a nice Christmas and thank you for the magazine and I like you.
Love,
Hap)
a surface subject, (I). This would increase the number of T-units in a piece of writing but not add to words or clauses per T-unit. This writing was often in response to a question or statement by the teacher (see Figure 5-55).

In January Tagg added questions to involve the reader, as he still expressed his own feelings. In the letter that he wrote to a prospective penpal, he used the conjunction END (and) to join two simple sentences into a compound sentence, demonstrating that he now was able to relate one thought to another. The literary device VERY WHITE that Tagg added to emphasize the meaning was a stylistic device showing further development in Tagg's writing (see Figure 5-50).

In segment 3, Tagg wrote occasional sentences consisting of 2 or more T-units, as well as a sentence containing four dependent clauses with embedded infinitive clauses as well (see Figure 5-56).

He continued to form compound sentences in his writing by joining two simple sentences into a compound sentence. He demonstrated the ability to introduce the surface subject (I) in the first clause but omitted it appropriately in the second and third clauses of that sentence (see Figure 5-51). He was able to move beyond the single use of first person into second person generalized as he wrote YOU in Figure 5-57.

During this last segment he still produced sentences with one or two short T-units. Each piece of writing usually contained several T-units with cohesive ties from one T-unit to the next instead of a single T-unit, as in the first segment's sample of April 28. Statisti-
6:16 Why is January nice?
Because it Has 31 Days. And 31 is my Best Number.

Today it ends. I hope February is warmer. MH.
I like February too. And I hope it is warmer.

Figure 5-55. Note, January 27 (Tagg, 6:6)

(Because it has 31 days and 31 is my best number.
I like February, too, and I hope it is warmer, too.)
March 25 1977 3:25

wine some

People came
to look at
our house and
wine they
left their

little girl
Screamed!
and Screamed!
so that you
had to
hold your ears.

Figure 5-56. Journal, March 25 (Tagg, 6:8), photo-reduced.

(When some people came to look at our house and when they left, their little girl screamed and screamed, so that you had to hold your ears.)
April 5, 1972

Spring is warm.

and you get to swim in swimming pools.

It is lots of fun. You see a lot of butterflies.

Can you think of anything else? M.M.

Figure 5-57. Journal, April 5 (Tagg, 6:9), photo-reduced.

(Spring is warm, and you get to swim in swimming pools. It is lots of fun. You see a lot of butterflies.)
cal T-unit analysis did not reflect these aspects of Tagg’s development (see Figure 5-58).

Tagg’s Use of Conventions of the Writing and Spelling Systems

**Word Boundaries.** Word boundaries were very flexible in Tagg’s beginning journal entries. If he copied a word, such as the date from the chalkboard, or from a story starter card, *At the dentist’s office*, distinct boundaries could be seen as he separated the word groupings by blank spaces. However, as he generated his own spellings, boundaries were less distinct, `SMTIMSIKNTLTIM` (Sometimes I can tell time) (see Figure 5-39).

By October, definite boundaries were almost consistently established between each word, even if the writing consisted of all invented spellings (see Figure 5-59). This development was retained throughout the school year as Tagg developed more conventional spellings (see Figure 5-60).

**Linearity and Directionality.** As Tagg began to write in the first grade, he was aware of the left-to-right linearity as well as top-to-bottom directionality of the English language. October 11's entry presented an interesting dilemma as Tagg reached the right margin and thought he could not finish the word. He went to the next line but decided he could get the three remaining needed letters in the previous line. He returned to the right margin of the line above and squeezed the letters in. Later in the year he realized he could divide words and hyphenate them if he ran out of space on a line. In December, just before segment 2 began, Tagg served as secretary for his younger
Today is Ted's birthday and it is fun. We get treats when it is somebody's birthday.
Figure 5-59   Note, October 12 (Tagg, 6:3).

(I think that I will keep the writing up.)
January 14, 1977

I like SCHOOL

Because it is Fun

AND I like

The Peplll here

Figure 5-60. Note, January 14 (Tagg, 6:6).

(I like school because it is fun and I like the people here.)
brother, Hap. It is interesting to note his use of lines which were placed on the commercial children's stationery for the date and salutation. Tagg was aware of the opening form of notes but had not yet started to date them, so he used the available date line to open the letter, moving from left to right and returning to the left margin to write on the next available line (see Figure 5-54).

**Utilization of Space.** During the first weeks of the study, Tagg filled all available space on a piece of paper. If he ran out of space on a page in his notebook, he would erase and write over the erased words (see Figure 5-39). Another strategy was to place the needed information in an empty space along the side of the lowest filled portion. Evidence of this was shown in Figure 5-33, the first note that Tagg wrote at home for his teacher. After these first entries, to avoid crowding his words he began to skip every other line. He usually filled each notebook page with several entries written over a span of days. As he neared the end of the third segment, he only used the right side of each page, usually only placing 2 or 3 words on a line, but using each alternate line from top to bottom.

**Letter Size.** The size of Tagg's writing changed rapidly within the first weeks of school. His first message was written in nearly all capital letters almost an inch high on plain paper with no guidelines (see Figure 5-33). Several days later, on September 16, Tagg began to use a notebook with 5/16" ruled guidelines, and these lines may have been involved in helping him to reduce the size of his writing. He maintained a size of 5/16" for capital letters and 1/4" for lowercase letters for the remainder of the year (see Figure 5-39).
Capital and Lowercase Letters. Tagg could print most capital and lowercase letters at the beginning of the data collection period, although letters such as $ \$ $ presented some difficulty. When he wrote his first note he made three attempts at writing Miss before he was satisfied with the letter S. If supportive persons were nearby, he would ask for the spelling of a word, but he did not ask for help with the formation of individual letters. The letter i was the only lowercase form used in this note. It was used in writing the teacher's name, but not as a first person pronoun (see Figure 5-33).

When Tagg was asked to write his date with each entry, he began to use lowercase as well as capital letters whenever he copied the needed information from the chalkboard. Tagg's first copy of the date is at the top of Figure 5-39. He also copied from a story starter card and used conventional capital and lowercase forms. In contrast, whenever he began to generate new words he would switch to nearly all capital letters, NAM (name), IGTMIE KLE (I got my teeth cleaned) (see Figure 5-39). This is in contrast to Bissex's son, Paul, who often transcribed to capitals when copying words printed in lowercase (Bissex, 1980, p. 5). During the first segment, as Tagg generated messages, he began to shift some of the medial and final letters to a lowercase form, indicating a growing awareness of conventional rules by which to use the lowercase form.

2. In this section, the child's examples in the text are written using the capital or lowercase form rather than all capitals, as used in the remainder of the text.
By January, Tagg was using capital letters in most cases only for the letter in the initial position of a word. He almost never placed a capital letter in the medial or final position of a word except for letters such as Kk, Ss, Cc, etc., which are similar in shape in both the capital and lowercase form, differing only in size (see Figure 5-61).

Though Tagg moved toward conventional use of the lowercase and capital forms during the year, he did make selective use of them as he used capital forms to stress an idea or to emphasize something of importance. AND is an example found in Figure 5-62. Although Tagg had previously used a conventional form of his name, by mid-year he began to experiment with all capitals. It seemed as if he was using orthographic experimentations for special emphasis, especially in terms of his signature (see Figures 5-61 and 5-62).

In the third segment, he also experimented with using all lowercase letters for his name (see Figure 5-63). Evidence of Tagg's control of the conventional letter choice was shown as he tested out these new ways of writing his own name. These samples show the need to appreciate experimentation by the child or else new developments of this type can look like regression.

During the final month of the study, Tagg usually controlled the use of lowercase letters in the medial and final position of a word. He used n in Allen while choosing the capital N in Nice. The letters with similar appearance in both capital and lowercase forms, such as Cc or Vv, were still being used interchangeably in the initial
I like to make angels because I like to lay in the snow, by Tagg

Figure 5-61. Journal, January 14 (Tagg, 6:6), photo-reduced.

(I like to make angels because I like to lay in the snow.
by Tagg)
Dear Miss Goodman,

Happy Birthday.

I Hope you Get Lots of Presents.

AND I hope That you Have a Good Birthday.

Form TAGG

Figure 5-62. Note, January 20 (Tagg, 6:6).

(Dear Miss Goodman,
Happy Birthday. I hope you get lots of presents and I hope that you have a good birthday.

from Tagg)
Dear Dr. Allen,

I hope you have a Nice Vacation.

From Tagg

Figure 5-63. Note, April 26 (Tagg, 6:9).

(Dear Dr. Allen,
I hope you have a nice vacation.
from Tagg)
position. He possibly used these two capitals in Nice Vacation to emphasize his wish for Dr. Allen (see Figure 5-63).

Two letters, $B$ and $D$, were being capitalized in words such as BirthDay, ThursDay, or Be. It is difficult to determine why Tagg chose the capital form, as he did use the lowercase form in other pieces of writing. Perhaps the $D$ in Day is a distinctive word or unit of language to Tagg which he wants to find a way to represent in a single word unit (see Figure 5-64).

Tagg's overall development of the conventional use of the lowercase and capital letter forms can be compared by looking at the three segments of the thousand-word sample. Capital letters were used most of the time as Tagg generated his early writing. He used them 98% of the time where capital letters belonged and 46% of the time in lowercase positions. He placed 54% of the needed lowercase letters appropriately as he copied dates and messages from the chalkboard or used story-starter cards in the classroom.

During the middle segment, Tagg placed lowercase letters where they were needed 82% of the time. Of the 18% that were represented by capital letters instead of the conventional lowercase form, only 5% were used in the medial or final positions, with the rest placed in the initial position. However, as Tagg increased his control of lowercase forms, he placed some lowercase letters in places where capital letters were needed; thus the conventional capital placement is now only 94%.

By the third segment, Tagg's control of lowercase letters had risen from 82% to 94%, and only 6% were represented by capital letters. This may be related to Tagg's use of capitals for intensifying certain
Dear Miss Milz,

My birthday is going to be June 2nd, Thursday.

Tagg
words which were important to him. There are examples of these possibilities in his samples shown in this section, such as in Figure 5-63, Nice Vacation, or Figure 5-64, BirthDay. He did not use a capital letter in a final position of a word, although he did place 1% in the medial position. Tagg continued to overgeneralize the need for lowercase letters so that 28% were now placed in capital letter positions—an increase of 22% from the 6% of segment 2. Tagg may also be trying to express his realization that our language uses more lowercase forms in contrast to his original choice of all capitals in his beginning writing. Figure 5-65 shows the change that occurred in Tagg's placement of the capital and lowercase forms.

**Spelling.** In describing Tagg's use of the spelling system, it is helpful to begin by looking at a profile of the percentage of words that Tagg always spelled conventionally each day of the three segments. Each particular word was considered only once regardless of how many times it occurred. Words which were spelled conventionally as well as in invented forms were classified as invented. For example, Tagg used Miss three times on September 13—spelling it conventionally twice but using an invented form once. He used 8 other words conventionally which included MIlz two times, as well as 7 other words once. Thus 8 out of 9 words (88%) were always conventionally spelled on this page (Figure 5-33).

**Overview of the Three Spelling Segments**

During the first segment, Tagg shifted between spellings created with assistance from story-starter cards or nearby adults to generated spellings. The percentage of conventional spellings
Figure 5-65. Percentage of capitals and lowercase letters used by Tagg (6:2-6:9) during the 3 segments.
decreased whenever Tagg increased his use of his own generated spellings. Tagg used 84 different words in the first segment of 200 words. Thirty-three words (39%) were always conventionally spelled.

Tagg never produced less than 60% conventionally spelled words for any day in segment 2, and by the second week he never produced less than 75% conventionally spelled words. He wrote 104 different words in the middle 300-word segment, of which 82 words (78%) were always conventionally spelled.

During the third segment, Tagg was spelling 79% or more of his daily words in a conventional form. He had moved from using outside resources for conventional spellings to generating his own mostly conventional spellings. He used 150 (88%) conventionally spelled words out of the 171 different words chosen to express his ideas.

Tagg demonstrated that he knew how the words he needed to write should look and sound, and he grew in this ability as the year progressed. Figure 5-66 shows the increased control during the final two segments.

Further analysis of the thousand-word sample revealed that Tagg used 20 words more than 10 times each. These words of high frequency comprised 47.5% of Tagg's word sample or 475 individual words. Table 5-21 ranks these words, the number of times used, and how often they were used conventionally. Eighteen of these words were spelled conventionally 70% or more of the time. The repetition of the same words over and over again in writing experiences of his choice helped to give Tagg increased control over the high frequency words which he needed to convey a message.
Figure 5-66. Daily profile of Tagg's conventional words (6:2-6:9).
Table 5-21. Ranked list of Tagg's high-frequency words (used 10 or more times).

<table>
<thead>
<tr>
<th>Rank</th>
<th>Word</th>
<th>Times Used</th>
<th>% Spelled Conventionally</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I</td>
<td>90</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>LIKE</td>
<td>45</td>
<td>95</td>
</tr>
<tr>
<td>3</td>
<td>AND</td>
<td>40</td>
<td>77</td>
</tr>
<tr>
<td>4</td>
<td>IS</td>
<td>38</td>
<td>94</td>
</tr>
<tr>
<td>5</td>
<td>YOU</td>
<td>26</td>
<td>96</td>
</tr>
<tr>
<td>6</td>
<td>TO</td>
<td>24</td>
<td>70</td>
</tr>
<tr>
<td>6</td>
<td>MY</td>
<td>24</td>
<td>83</td>
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<tr>
<td>8</td>
<td>IT</td>
<td>23</td>
<td>100</td>
</tr>
<tr>
<td>9</td>
<td>TAGG</td>
<td>21</td>
<td>100</td>
</tr>
<tr>
<td>10</td>
<td>A</td>
<td>20</td>
<td>100</td>
</tr>
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<td>11</td>
<td>FUN</td>
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<td>100</td>
</tr>
<tr>
<td>11</td>
<td>NICE</td>
<td>15</td>
<td>73</td>
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<tr>
<td>13</td>
<td>MISS</td>
<td>13</td>
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<td>13</td>
<td>HAVE</td>
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<td>100</td>
</tr>
<tr>
<td>15</td>
<td>DEAR</td>
<td>12</td>
<td>91</td>
</tr>
<tr>
<td>15</td>
<td>ARE</td>
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</tr>
<tr>
<td>16</td>
<td>APRIL</td>
<td>11</td>
<td>100</td>
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<tr>
<td>16</td>
<td>SEPTEMBER</td>
<td>11</td>
<td>100</td>
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<tr>
<td>16</td>
<td>THAT</td>
<td>11</td>
<td>45</td>
</tr>
<tr>
<td>16</td>
<td>WHEN</td>
<td>11</td>
<td>9</td>
</tr>
</tbody>
</table>

Top 20 words = 475 = 47.5% of Tagg's Writing Sample
Further descriptive information gives a picture of Tagg's emerging use of the spelling and orthographic system in each of the three segments.

Segment 1

Tagg's early spelling was generated with the help of nearby adults or by story-starter cards. His first spellings reflect this assistance, and all of the words in his first note were spelled conventionally except that he did make multiple attempts at Miss. He abandoned his first two tries at that word because the formation of the S created problems—not the spelling (see Figure 5-33). In his first journal entry, he copied the date for each day, as well as using open-ended sentences from cards available in the classroom (see Figure 5-39). As he copied news items written on the chalkboard, TODAY IS COLUMBUS DAY (see Figure 5-40), each of these entries was conventionally spelled as it was copied from its source.

Several reasons may account for Tagg's initial use of almost totally conventional spelling. During kindergarten Tagg had copied many words as part of letter formation lessons. Tagg may have formed the concept that words are spelled in a certain way during lessons in this school setting, or he could have reflected his growing awareness that print has a message conveyed through certain letter patterns in a word. However, he did at the beginning of the study period have enough confidence in himself to generate words on his own. It is significant to note that he asked how to spell whole words, and did not go through a period where he asked for sounds within words, as other research subjects such as Bissex's (1980, p. 10) son Paul did.
As Tagg interacted with significant others in the school setting who did not emphasize correct spelling as the only acceptable model, he began to generate his own spellings based on his growing knowledge of the spelling system. He moved back and forth between spelling with assistance to completely self-generating his spellings. Table 5-22 shows that Tagg used a combination of methods to spell. There are distinct sections of copying a date or open-ended sentences as well as sections of self-generated spelling. This movement between methods is illustrated by the samples on October 11. First, Tagg copied the news item from the chalkboard (see Figure 5-40). Then he generated a statement about a personal experience (see Figure 5-67). Both messages were represented by the letters of the alphabet. Tagg was spelling the way words both sounded and looked, as already 23 of the 27 letters Tagg chose matched the conventional spelling, while other letters such as the I in MI (my) represented the sound:

```
I F D A C A B P L W N I PLA W THE MI
I found a caterpillar when I played with my
FRS I FEK
friends I think (see Figure 5-67)
```

Tagg's spelling errors reveal that he used phonological strategies common to other young writers as identified by Read (1975), Beers and Henderson (1977) and Bissex (1980). The graphic configuration of the words also seems to be a cue used by Tagg. The first journal page exhibits many examples of his phonological and graphic judgments. On September 16 he wrote MI (my). This use of MI, as well as R (are) (see
Table 5-22. Methods used by Tagg to produce a message during segment 1.

<table>
<thead>
<tr>
<th>Method</th>
<th>September</th>
<th></th>
<th>October</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>13 16 17 20 21 22 23 24 27 28 29 30</td>
<td></td>
<td>2 4 5 6 11 13</td>
</tr>
<tr>
<td>Seeks Assistance</td>
<td>X</td>
<td>X X X X X</td>
<td>X X</td>
</tr>
<tr>
<td>Produces Self-Generated Message</td>
<td></td>
<td>X X X X X</td>
<td>X</td>
</tr>
<tr>
<td>Combination of Above</td>
<td>X X X X X X X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
(I found a caterpillar when I played with my friends, I think.)
Figure 5-37) supports Read's (1975, p. 29) contention that children use "letters to spell new words according to the phonemes in the letter-names." Tagg erased the I in MI in the September 16 entry and wrote a Y. He could have been cued by the conventional spelling of by, and generalized that Y is a more common final marker than I, or a student sitting nearby might have suggested he change it. He represented NAM (name) by using the initial and final consonants as well as the long vowel—again a letter-name strategy for A. As Tagg made further entries on this journal page he continued to use the letter name strategy as identified by Read to determine needed vowels though he was able to represent the appropriate consonant sounds, e.g. TE (teeth), SE (see), TIM (time). He would omit the vowels if another strategy was needed, WN (when), SMTIMS (sometimes) (see Figure 5-39). Another use of the letter-name strategy occurred later, on September 30, when Tagg used H to represent the ch in THR (teacher). Read (1971, p. 5) observed that the sound ch (as in chin) is the consonant found in the letter name H, which is then chosen by the child to represent the sound (see Figure 5-68).

Tagg used another strategy similar to Read's (1975, p. 54) inventive spellers on September 23. He omitted the preconsonantal nasal N in WT (went), even though in previous entries on this page he used N in the final position in KN (can) and WN (when), as well as in the initial position in NAM (name) (see Figure 5-39).

When Tagg began to use vowels that did not directly correspond to the letter names, he first represented short a as in that with an o, THET. This spelling was identified by Beers and Henderson (1977, p.
Figure 5-68. Note, September 30 (Tagg, 6:2), photo-reduced.

(Deaf Miss Milz,
I think that you are [a] nice teacher.
Love, Tagg)
137) as a shift away from the pairing of short vowels with the letter name corresponding closest to the pronunciation of the short vowel (Read, 1975, p. 35) (see Figure 5-68).

This same strategy was used on October 5 as Tagg again used THET (that) and WIL (well). However, he also wrote FEK (think) and WTHE (with) as did Read's (1975, p. 35) young spellers. Both of these judgments seemed to be operating at the same time during segment 1 rather than one representing a later developmental level. Tagg also was willing to accept the principle that one letter could represent different sounds as he used e to represent short i in think, FEK, short a in that, THET, and long e in very, VRE (see Figure 5-69).

As Tagg began to self-generate messages during the first segment, evidence of the use of graphic cues began to emerge along with his developing phonological judgments. The first entry of journal writing, MY NAMISTER TAGG (My name is Tagg) has what may be a false start on his name following the word IS. He attempted to write ter, the e being very similar to a reversed g in manuscript. He began the next letter, which appeared to be r or could be the beginning of a reversed manuscript a (r,d). He self-corrected by erasing a second r, and proceeded to write TAGG, using two reversed lower-case G's (g g). This reversing of letters, as well as a mixed order of letters within a word, did occur during the first segment though not with any regularity (see Figure 5-39).

Further evidence of Tagg's use of the graphic principle occurred on the same page of journal writing in the September 20 entry, when he used STOP to represent the two words stop sign, just as he saw
October 5, 1976

I feel the I Kn Rd MI BKR
VRe Wil a WN
I PL W The MI

Figure 5-69. Journal, October 5 (Tagg, 6:3).

(I think that I can ride my bike very well and when I play with my ...)
it written on a toy sign found within the classroom, or at the nearby street corner. He also spelled STOP to represent stop as a single word unit (see Figure 5-39). On October 2, Tagg used a letter name strategy to begin writing you. He wrote U, but then continued to write EY to form UEY—a word graphically similar to YOU but reversed. He may have decided he needed a Y someplace in the word as the graphic principles and the phonological principle came into conflict with each other (see Figure 5-37). On October 4 he wrote OCT which was graphically very similar to the needed word out, except for the c placed on its side when compared to U. OCT, the abbreviation for October, on the rubber date stamp was used in Tagg's school environment, while the word OUT was on a Halloween bulletin board titled "Who will be out on Halloween?" (see Figure 5-48). Thus, the graphic appearance of a word seemed to have an influence on Tagg's development at the same time he was using phonological cues to spell.

Tagg usually used at least two letters to represent each word. There were three exceptions in the first segment, R (are), G (going), and I as a personal pronoun (see Figure 5-48). I as a personal pronoun was conventionally spelled in each usage during the entire year. However, Tagg also practiced some letter economy between words as he had several words share letters, MIE (my teeth). The I was part of MI (my), but the top serifed portion was also used to represent the T in TE (teeth) (see Figure 5-39). One time he combined a group of words into one unit, BATOEMR (Be able to see more) (see Figure 5-47).

The evolution of Tagg's spelling for the word think also illustrates the story of Tagg's development during segment 1. Tagg
would use an expression or phrase for a period of time in his writing. The phrase I think was one of his early favorites which he generated during the first segment. This word became a high-frequency word for segment 1, but was never used in segments 2 and 3.

Tagg began to write think by using the letters representing the sounds of the digraph TH and the consonant K. Although he was using the principle that a combination of letters may represent a single sound, he abandoned it in favor of a single-letter representation of H. His second attempt on October 2 contains the words I HKR HT (I think that). It may be the aspiration of the H that is controlling the spelling in this case rather than phonological or graphic principles. His next entry uses f to represent TH, which again relates the similarity of articulation in terms of how the f sound is produced with the lower lip against the upper teeth and th with the tip of the tongue against the upper teeth (Dale, 1976, p. 199). The r is harder to explain except for its similarity to a lowercase n. If Tagg needed more than 2 letters because he had some idea of a minimal number of letters necessary to represent a readable word, he may have used it as a final marker (Ferreiro, 1982).

He did use the r or omit the pre-consonantal nasal n until he arrived at the conventional spelling think at the end of October. On his fourth attempt to write think, he began to use a vowel, choosing e to represent short i, a choice common to many young spellers. Read (1975, p. 36) states, "the children chose E because of the similarity between long E and sort I, namely that of place of articulation; both are high front unrounded vowels." On October 22, Tagg began the
transition to the vowel representation of \textit{i} for short \textit{i} by using both the \textit{I} and \textit{E} together to represent the sound. He used four and five letters to produce words coming graphically closer to the conventional form. He then began to use a conventional spelling except for one abandonment on October 28. Table 5-23 shows the development of the spelling in relation to the words written before and after it. This development profile provides evidence of the intellectual processing Tagg shows as he experiments and plays with language while increasing his knowledge of the sound and graphic systems of English spelling.

**Segment 2**

Tagg used 37 invented spellings which were represented by 22 (21\%) of the 104 different words used during the second segment. Table 5-24 lists the 22 words showing the invented form and number of times these words were used as compared to overall use both in the segment and in the entire sample.

Two words, AND and TO, were words of high frequency for Tagg during the entire sample. As he used these words over and over, he came to control the conventional spelling. AND was conventionalized by the seventh sample in this segment. As Tagg spelled TO, he shifted the spelling from TOW to TWO to T. Dealing with the three homonyms TO, TOO, and TWO proved more difficult though he was able to conventionally use TO and TOO beginning the week after the segment ended.

The other spellings found in Table 5-24 are words of low frequency. Tagg began to deal with them in a systematic way applying the knowledge he had discovered about other words. He doubled the L to write new words, e.g., ANGLLS (angels), LLAE (lay), and PEPLL (people),
Table 5-23. Tagg's spelling of *think* (6:2-6:3).

<table>
<thead>
<tr>
<th>Time</th>
<th>I/THK/FKR/FEK/TAERK/TERK</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-30</td>
<td>I/THK</td>
<td>THET YOU ARE ... (that you are)</td>
</tr>
<tr>
<td>10-2</td>
<td>I/HKR</td>
<td>HT UEY R ... (that you are)</td>
</tr>
<tr>
<td>10-4</td>
<td>I/FKR</td>
<td>THET GHOST R ... (that ghosts are)</td>
</tr>
<tr>
<td>10-5</td>
<td>I/FEK</td>
<td>THET I KN ... (that I can)</td>
</tr>
<tr>
<td>10-11</td>
<td>... I/FEK</td>
<td>THET I WL ... (that I will)</td>
</tr>
<tr>
<td>10-12</td>
<td>I/FEK</td>
<td>THET LVEEBD ... (that everybody)</td>
</tr>
<tr>
<td>10-13</td>
<td>... I/TERK</td>
<td>THAT LVEEDD ... (that everybody)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>segment ends</td>
</tr>
<tr>
<td>10-18</td>
<td>I/TERK</td>
<td>MI TETR ... (my teacher)</td>
</tr>
<tr>
<td>10-20</td>
<td>I/TERK</td>
<td>FT HALLOWEEN ... (that Halloween)</td>
</tr>
<tr>
<td>10-22</td>
<td>I/TIEK</td>
<td>THET LVEEDE ... (that everybody)</td>
</tr>
<tr>
<td>10-22</td>
<td>I/think</td>
<td>you are a pretty swell guy ... M.M.</td>
</tr>
<tr>
<td>10-23</td>
<td>I/TERK</td>
<td>HT UOY R A (that you are a)</td>
</tr>
<tr>
<td>10-25</td>
<td>I/THINK</td>
<td>THA ... (that)</td>
</tr>
<tr>
<td>10-26</td>
<td>I/THINK</td>
<td>THAT MY ...</td>
</tr>
<tr>
<td>10-28</td>
<td>I/THINK</td>
<td>THAK ... (that)</td>
</tr>
<tr>
<td>11-2</td>
<td>I/THINK</td>
<td>THAT MY FRIENDS</td>
</tr>
<tr>
<td>11-3</td>
<td>I/THINK</td>
<td>THAT YOU</td>
</tr>
</tbody>
</table>
Table 5-24. Tagg's invented spellings from segment 2.

<table>
<thead>
<tr>
<th>Conventional Form</th>
<th>Invented Spelling</th>
<th>Times in Entire Sample</th>
<th>Times in Segment 2</th>
<th>Times Invented in Segment 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>and*</td>
<td>END</td>
<td>40</td>
<td>17</td>
<td>7</td>
</tr>
<tr>
<td>angels</td>
<td>ANGLLS</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>because</td>
<td>BECASE</td>
<td>9</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>being</td>
<td>BEEING</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>does</td>
<td>DIZ</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>down</td>
<td>DON</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>February</td>
<td>FEBRARY</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>from</td>
<td>FORM</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>house</td>
<td>HOWS</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>lay</td>
<td>LLAE</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>people</td>
<td>PEPLL</td>
<td>5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>played</td>
<td>PLAYD</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>presents</td>
<td>PRISITS</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>school</td>
<td>SCOOL</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>slidid</td>
<td>SLIDID</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>teacher</td>
<td>TECHR</td>
<td>7</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>to*</td>
<td>TOW, TWO</td>
<td>24</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>too</td>
<td>TOW</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>vacations</td>
<td>VAKSINS</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Valentine's</td>
<td>VALINTINT</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>well</td>
<td>WILL</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>went</td>
<td>WINT, WITT</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

12 words

* On Tagg's high-frequency list.
probably generalizing from words like WILL or WELL. However, as he used words of higher frequency in these same samples, LIKE and SCOOL (school), he retained the single L in the spelling (see Figures 5-60 and 5-61). The preconsonantal nasal, previously omitted in segment 1, was placed in some words PRESIDENT (see Figure 5-42) but omitted in others (PRISITS) (presents) (see Figure 5-62).

The interrelationship of both graphic and phonological principles can once again be seen by examining his use of morphological endings ING in BEEING (being) (see Figure 5-38), ID in SLIDID (slided) (see Figure 5-49), and D in PLAYD (played) (see Figure 5-70). S was added to form the plural forms of ANGLLS (angels) (see Figure 5-61), and PRISITS (presents) (see Figure 5-62), while Z was used to represent the same sound in DIZ (does)--a more complex judgment on an unfamiliar word (see Figure 5-71).

Over half of the words differed by only a single letter from the conventional spelling, as in END (and) (see Figure 5-71) or SCOOL (school) (see Figure 5-60). The majority of words that were invented spellings were only used once or twice. A word used most frequently like AND became conventionalized. The only high frequency words that vascilate between conventional and invented spellings in segment 2 are the homophones TWO, TO, TOO, which were discussed earlier.

**Segment 3**

As Tagg wrote the 500 words in segment 3, he used only 34 invented spellings which were represented by 21 different words. Most of the invented spellings were low frequency words as used by the six children.
January 6 1977.
I went to my friend's house. I played with my Dad.

Figure 5-70. Journal, January 6 (Tagg, 6:6).
(I went to my friend's house. I played with my Dad.)
He is nice to you, isn't he? MM.

Yes HE is.

end I like to w

Play With him.

end He Diz
tow.

Figure 5-71. Journal, January 7 (Tagg, 6:6).

(Yes, he is and I like to play with him, and he does too.)
WHEN, which occurred the most times of the low frequency words, only comprised 1% of Tagg’s thousand-word sample. This word ranked 16th on Tagg’s personal high frequency list. In 73% of the 21 words, there was only one letter difference from the conventional spelling while the remainder only differed by 2 letters, just as he had done in segment 2. Table 5-25 shows the invented spellings that Tagg used in relation to their total use in this segment as well as the entire sample.

Tagg continued to approach spelling in a highly systematized manner. He extended his use of the morphological endings ING and S. In SWIMING (swimming) (see Figure 5-57), COMEING (coming) (see Figure 5-51) and MOVEING (moving) (see Figure 5-46), he added ING although he had not discovered the conventions necessary to add ING—the deletion of a final E or the doubling of the final consonant. This same principle occurred in BUTTERFLYS (butterflies) (see Figure 5-57), as he added S without changing the Y to I.

Graphic and phonological cues continued to play a significant role as Tagg wrote words that he did not use very often. For example, as Easter approached Tagg began to write this holiday name, moving from invented to a conventional form:

<table>
<thead>
<tr>
<th>Date</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/30</td>
<td>Ester</td>
</tr>
<tr>
<td>3/30</td>
<td>Eستر</td>
</tr>
<tr>
<td>4/5</td>
<td>EAster</td>
</tr>
<tr>
<td>4/5</td>
<td>EAster</td>
</tr>
<tr>
<td>4/5</td>
<td>EASTER</td>
</tr>
</tbody>
</table>
Table 5-25. Tagg's invented spellings from segment 3.

<table>
<thead>
<tr>
<th>Conventional Form</th>
<th>Invented Spelling</th>
<th>Times in Entire Sample</th>
<th>Times in Segment 3</th>
<th>Times Invented in Segment 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>almost</td>
<td>ALMOS</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>because</td>
<td>BECUASE</td>
<td>9</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>butterflies</td>
<td>BUTERFLYS</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>cactus</td>
<td>CACTIS</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>carry</td>
<td>CAIRY</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>coming</td>
<td>COMEING</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Conant</td>
<td>CONAOT, COANAT</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>ears</td>
<td>EERS</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Easter</td>
<td>ESTER, ESTTER, EAETER</td>
<td>6</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>haven't</td>
<td>HAVE'EN</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>having</td>
<td>HAVEING</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>lots</td>
<td>LOT</td>
<td>6</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>moving</td>
<td>MOVEING</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>polka dot</td>
<td>POKEODOT</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>room</td>
<td>ROO</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>school</td>
<td>SCOOL</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>swimming</td>
<td>SWIMING</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>teacher</td>
<td>THEACHER</td>
<td>7</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>together</td>
<td>TOGETHE</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>until</td>
<td>UNTILL</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>when*</td>
<td>WINE</td>
<td>11</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>

21 Words

* On Tagg's high-frequency word list.
He was not afraid to take a risk to try a spelling, and he gained increasing control as he discovered the patterns and rules of the spellings he needed to convey his ideas.

**Summary**

Tagg's early spelling reflected his growing awareness of phonological and graphic rules. He copied words in conventional form, but as he generated his own words, he used salient phonological and graphic features of the conventional form. During the first month of the study he also blended elements of up to five words into one long word (see Figure 5-47). By the second month he had distinct word boundaries though many of the words were not conventionally spelled. The words that he used frequently gradually moved to a conventional form. He also began to control the spellings of many words being used frequently by the other children in the classroom. Table 5-26 shows the changes in the high-frequency words used by Tagg, as well as those ranked in the top 20 by the six children. By the third segment, Tagg controlled the spellings of words he or his classmates were using. The only exception was *when*, which ranked 16th on Tagg's list but was only used 11 times during the thousand-word sample. Perhaps it was not being used enough by Tagg or his classmates to help him to spell it conventionally, or other influences were present as he attempted to spell this word.

**Punctuation.** As Tagg wrote, he created 234 opportunities to use 7 different kinds of punctuation but omitted 52% of them. He substituted another mark in 8% of the opportunities he created (for example, a period for a comma). He did place 39% conventionally, with
Table 5-26. Tagg's high-frequency words.

<table>
<thead>
<tr>
<th>High-frequency Words Merged With Tagg's Top 20 List (Alphabetized)</th>
<th>Tagg's High Frequency Words</th>
<th>Total Times Used by Tagg</th>
<th>Tagg's % of Conventional Spelling</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Combined</td>
<td>Seg. 1</td>
</tr>
<tr>
<td>a</td>
<td>10</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>and</td>
<td>3</td>
<td>77</td>
<td>0</td>
</tr>
<tr>
<td>April</td>
<td>16</td>
<td>100</td>
<td>-</td>
</tr>
<tr>
<td>are</td>
<td>15</td>
<td>84</td>
<td>33</td>
</tr>
<tr>
<td>dear</td>
<td>15</td>
<td>91</td>
<td>75</td>
</tr>
<tr>
<td>do**</td>
<td>2</td>
<td>100</td>
<td>-</td>
</tr>
<tr>
<td>fun*</td>
<td>11</td>
<td>100</td>
<td>-</td>
</tr>
<tr>
<td>have*</td>
<td>13</td>
<td>100</td>
<td>-</td>
</tr>
<tr>
<td>he**</td>
<td>3</td>
<td>100</td>
<td>-</td>
</tr>
<tr>
<td>I</td>
<td>1</td>
<td>91</td>
<td>100</td>
</tr>
<tr>
<td>is</td>
<td>4</td>
<td>94</td>
<td>50</td>
</tr>
<tr>
<td>it</td>
<td>8</td>
<td>100</td>
<td>-</td>
</tr>
<tr>
<td>January</td>
<td>20</td>
<td>100</td>
<td>-</td>
</tr>
<tr>
<td>like</td>
<td>2</td>
<td>95</td>
<td>50</td>
</tr>
<tr>
<td>love**</td>
<td>4</td>
<td>100</td>
<td>-</td>
</tr>
<tr>
<td>me**</td>
<td>8</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Milz**</td>
<td>9</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Miss</td>
<td>13</td>
<td>92</td>
<td>79</td>
</tr>
<tr>
<td>my</td>
<td>6</td>
<td>83</td>
<td>33</td>
</tr>
<tr>
<td>nice</td>
<td>11</td>
<td>73</td>
<td>0</td>
</tr>
<tr>
<td>September*</td>
<td>16</td>
<td>100</td>
<td>-</td>
</tr>
<tr>
<td>Tagg*</td>
<td>9</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>that*</td>
<td>16</td>
<td>45</td>
<td>14</td>
</tr>
<tr>
<td>the</td>
<td>20</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>to</td>
<td>25</td>
<td>72</td>
<td>100</td>
</tr>
<tr>
<td>when*</td>
<td>16</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>with*</td>
<td>20</td>
<td>70</td>
<td>0</td>
</tr>
<tr>
<td>you</td>
<td>5</td>
<td>96</td>
<td>66</td>
</tr>
</tbody>
</table>

* Tagg's list only.
** Merged list only.
the majority being periods. Twenty-three extra marks, mainly periods, were placed in additional places where punctuation was not needed as he began to write more complex sentences. Table 5-27 shows the seven kinds of punctuation marks that Tagg might have placed in the thousand-word sample, and what he actually used as a writer.

During the first segment, Tagg could have used three punctuation marks: period, comma, and apostrophe. Instead he omitted punctuation 86% of the time. He usually relied on spacing to end a sentence instead of using periods. The first placement of periods occurred at the end of a journal entry (see Figure 5-59). Commas were used conventionally when Tagg copied the date, OCTOBER 11, 1976 from the chalkboard, although he placed these first commas above the line (see Figure 5-40). Table 5-28 shows the use Tagg made of punctuation in segment 1.

During segment 2, Tagg increased his conventional use of punctuation to 35%. He used periods appropriately more than any other mark—usually ending each piece of writing with an appropriate period. Of the 32 possible places for periods, he used 19 (59%) conventionally. Commas were more difficult for Tagg, and he usually omitted them. He used a space where a comma is used conventionally in half of the dates he wrote, while inserting a period after the year (see Figure 5-70). When writing a note, he did not end the salutation with a comma in any of the samples in this segment. His writing also increased in complexity as he made a transition from simple to compound sentences. As Tagg began to try to form a compound sentence, he would sometimes insert periods at the end of each clause before continuing to the next one
Table 5-27. Tagg's use of punctuation over three segments.

<table>
<thead>
<tr>
<th>Kinds of Punctuation</th>
<th>Opportunities Over Three Segments</th>
<th>Tagg's Usage*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>I</td>
</tr>
<tr>
<td>Period</td>
<td>118</td>
<td>46</td>
</tr>
<tr>
<td>Comma</td>
<td>86</td>
<td>58</td>
</tr>
<tr>
<td>Question Mark</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Exclamation Point</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Quotation Marks</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Apostrophe</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td>Hyphen</td>
<td>11</td>
<td>8</td>
</tr>
</tbody>
</table>

234 (100%) 122 (52%) 23 (8%) 18 (1%) 3 (1%) 91 (39%)

* O = Omission
I = Insertion
S = Substitution
M = Misplacement
C = Conventional Use
Table 5-28. Tagg's use of punctuation within segment 1.

<table>
<thead>
<tr>
<th>Kinds of Punctuation</th>
<th>Opportunities Within Segment One</th>
<th>Tagg's Usage*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>O</td>
<td>I</td>
</tr>
<tr>
<td>Period</td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td>Comma</td>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td>Apostrophe</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>37</th>
<th>32</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>(100%)</td>
<td>(86%)</td>
<td>(14%)</td>
<td></td>
</tr>
</tbody>
</table>

* O = Omission  
I = Insertion  
S = Substitution  
M = Misplacement  
C = Conventional Use
Tagg's writing on February 1 illustrates this dilemma. The usage called for in Webster's Handbook of Style (1974) states that the commas "separate main clauses joined by a coordinating conjunction and very short clauses not so joined (She knew very little about him, and he volunteered nothing)." However, in practice this construction is not used too often, even by adult writers.

The other three punctuation marks Tagg could have used were the question mark, apostrophe and hyphen. The increasing complexity of Tagg's writing called for the use of these marks as Tagg began to use contractions IM (I'm) and possessives DOUGS (Doug's) (see Figure 5-72), as well as questions, WHY (see Figure 5-50). Table 5-29 shows Tagg's use of punctuation during segment 2.

Tagg's punctuation during segment 3 increased to the use of 7 different kinds, though the one mark he still controlled most conventionally was the period. Most pieces of writing ended with a period, if appropriate. He also used the period to terminate a sentence, even if it was in the middle of a line, PEOPLE MAKE THEM. WE ARE MOVEING (People make them. We are moving.) (see Figure 5-46), whereas in earlier segments most periods were placed only at the right margin. The comma was still usually omitted in the third segment, although he did substitute periods in 11 places where commas would have been appropriate, as in the salutation in the note of April 26 (see Figure 5-63). These substitutions suggest an awareness that punctuation is necessary, but he does not have full control over which mark to use. Tagg began to divide words as he reached the right margin of a page, but usually he could not segment them conventionally. He continued to
JANUARY
20, 1977. I'm
Going to Doug's House TODAY.

Figure 5-72. Journal, January 20 (Tagg, 6:6).

(I'm going to Doug's house today.)
Table 5-29. Tagg's use of punctuation within segment 2.

<table>
<thead>
<tr>
<th>Kinds of Punctuation</th>
<th>Opportunities Within Segment Two</th>
<th>Tagg's Usage*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>O</td>
<td>I</td>
</tr>
<tr>
<td>Period</td>
<td>32</td>
<td>13</td>
</tr>
<tr>
<td>Comma</td>
<td>27</td>
<td>17</td>
</tr>
<tr>
<td>Question Mark</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Apostrophe</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Hyphen</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>67</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>(100%)</td>
<td>(55%)</td>
</tr>
</tbody>
</table>

* O = Omission  
I = Insertion  
S = Substitution  
M = Misplacement  
C = Conventional Use
learn to use contractions and attempted to place the apostrophe, though they were not always placed conventionally (see Figure 5-73). Tagg used 48% of the needed punctuation conventionally. His use of punctuation is listed in Table 5-30.

Overview of Tagg's Construction of Meaning Within Written Text

Tagg entered first grade willing to write a message that could make sense to a reader. All of his writing during the year was represented by letters of the alphabet. He began by copying conventional words, but quickly began to invent spellings to convey his message. During November, a rapid change occurred and Tagg began to use highly conventional spellings, although he continued to invent a spelling if he needed a particular word to deliver his meaning. These invented spellings were almost all low-frequency words. Tagg did not use art to present his messages as some other children did; but after the first week in November he did begin to make pictures to complement his written text.

Tagg learned to use other structural conventions to make his writing meaningful to a reader. He began to write by using 1" capital letters just as print in the environment is used to present a brief message as, for example, a street sign STOP is all in capital letters. As his messages became more complex, his writing became smaller, and he began to use more lowercase letters. By the end of the study he used lowercase letters appropriately 94% of the time, a change from almost total use of capital letters in the first samples. Capital letters were used appropriately to begin sentences, for first person pronoun
6:8 I like the Poke Dot cactus. I one of the cacti are haveing Flowers. they have a Bloom-ed yet.
From tagg

Figure 5-73. Journal, March 28 (Tagg, 6:8), photo-reduced.

(I like the polkadot cactus. One of the cactus are having flowers. They haven't bloomed yet.)
Table 5-30. Tagg's use of punctuation within segment 3.

<table>
<thead>
<tr>
<th>Kinds of Punctuation</th>
<th>Opportunities Within Segment Three</th>
<th>Tagg's Usage*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>O</td>
<td>I</td>
</tr>
<tr>
<td>Period</td>
<td>69</td>
<td>18</td>
</tr>
<tr>
<td>Comma</td>
<td>40</td>
<td>25</td>
</tr>
<tr>
<td>Question Mark</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Exclamation Point</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Quotation Marks</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Apostrophe</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Hyphen</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>130</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>(100%)</td>
<td>(41%)</td>
</tr>
</tbody>
</table>

* O = Omission
I = Insertion
S = Substitution
M = Misplacement
C = Conventional Use
(I) and for names. Punctuation usage increased gradually during the year from 86% omission to 48% conventional usage, with only 41% omissions. Tagg experimented with capitalization and punctuation just as he did with spelling. He was always able to write his name conventionally, but later in the year he experimented with using all capitals and all lowercase graphic displays. He also used capital letters to emphasize a particular meaning. As he needed possessive forms, contractions, questions, etc. he tried to use the needed punctuation marks though he was not always able to place them appropriately on the early tries. The period was the most used punctuation mark, and Tagg used it conventionally by the end of the study.

As a writer, Tagg was able to use words, phrases and sentences to convey a message from his first notes. These messages grew in complexity during the year, changing from simple declarative sentences to compound and complex sentences. Questions were written by mid-year. As these structures appeared, Tagg used punctuation in needed places; for example, placing a period in the middle of a line to separate two sentences.

Throughout the study, Tagg's writing often began with the personal pronoun "I." His writing grew out of experiences that had occurred in his environment as he remembered or lived them. He focused on meaning which was clear to himself, although sometimes it was ambiguous to the reader. It is difficult to tell in Figure 5-67, for example, if he was sure that he found a caterpillar while playing and was going to express a further thought, such as I think it had yellow stripes, or if he thought he found the caterpillar while playing with
friends—not his brothers or someone else. By the close of the study, he was able to extend his meaning further and express his meanings in order to clarify his thoughts for a reader. On April 5, he told of Easter coming and that it was fun. He then elaborated that he would get an Easter basket and look for Easter eggs (see Figure 5-51).

Tagg learned to use the forms needed to convey his messages. He began notes with DEAR _____ and closed with his name. Later he used TO _____ and FROM ____. Journal entries were dated, and related experiences that Tagg could one day look back at and use to remember his days during his sixth year. Stories were factual events related by Tagg, and he did not use a traditional "Once upon a time" beginning or an imaginary story frame.

To describe Tagg during the period of the study would be to characterize him as a child unafraid to take a risk. He had something to say, and he tried to say it. As he wrote more, he used more complex structures and conventional forms, though he always focused on the construction of the message as his priority. Thus, even in the last days of the study he still occasionally invented a spelling or tried a new punctuation usage. He used his knowledge, confident that his message would be understood.
CHAPTER 6

WHEN FIRST GRADERS WRITE

During the 1976-77 school year, as children wrote in Room 14 of Way Elementary School, their writings were copied and collected with the goal of finding out just what was happening when first graders learned to write. This study began because over the years, many children had presented the classroom teacher with notes and little stories—sometimes even during the first week of school. The children used creative spellings, interesting punctuation placements and liberal scatterings of capital or even partial letter forms throughout the writings. New research in the field of child language development brought new insights into what had been and was happening to learners in the classroom. Thus, one classroom teacher found her curiosity about the writing process raised enough to begin a personal search to find some answers. It seemed logical to begin where writing by first graders had and was taking place—in her classroom. The collected writings were organized and analyzed in order to make possible an understanding of the development of writing in first grade children.

Guba describes the teacher-researcher role when he states:

He is concerned with description and understanding . . . immersing himself in the investigation with as open a mind as possible, and permitting impressions to emerge. As impressions are formed, he checks them out by various means, e.g. 'triangulation,' testing one source against another until he is satisfied that his interpretation is valid (Guba, 1978, p. 13).
Chapters 4 and 5 describe six children from the classroom as they learned to write, along with impressions formed by their teacher as she observed, interacted, and taught her class. These chapters were written while new information was continuing to emerge from educators and linguists in the field, as well as new children were entering and leaving the classroom each year. Both of these occurrences have tempered and refined the two chapters, as well as providing the means for triangulation that Guba refers to in the above reference.

In this chapter, conclusions presented as hypotheses are grouped as answers to each of the research questions which were the main focus of the study. Some of the conclusions are already being confirmed by newly emerging research, yet others need further research to determine if other children develop similarly. Finally, implications generated from the research are presented.

**Summary and Conclusions Stated as Hypotheses**

The conclusions and hypotheses will be presented using the same categories used to organize the research questions in this study: general background information, the children as writers, the children's use of the conventions of the writing and spelling systems, and an overview of the children's construction of meaning in written text. Specific research questions are answered in each category.

**General Background**

**Question 1:** What aspects of a child's development have influence on writing development? As children enter a first grade classroom, they bring many linguistic strengths reflecting their background
and experiences. Children are competent language users who have mastered enough of their home language to be able to talk to peers and adults. Languaging is a natural process as children are surrounded by meaningful functional language from birth. Yetta Goodman (1980, p. 3) states, "Language development is natural whether written or oral. It develops in a social setting because of the human need to communicate and interact with the significant others in the culture." In a literate society, such as ours, children are surrounded by print in their home and neighborhoods. They have many opportunities to explore the uses of print as they go about their daily activities. They are not specifically taught by parents, or other significant persons, but both reading and writing are deeply interwoven in their daily activities. It is important to note that when the six subjects entered first grade they brought a rich, though varied, background of experience with writing, along with reading, listening and speaking. They were language users who were eager to communicate. Within one month, they all were writing notes, as well as producing writing in their journals. Giacobbe (1981, p. 130) handed out notebooks to her first graders at Atkinson Academy, and likewise discovered they could write during the first week of school. She concludes, "I could see the children had entered school ready to engage in the active process of writing." To understand how writing develops in children, it is helpful to look at how the home environments, family interactions with the child, pre-first grade educational experiences, and the first grade classroom all influence and support the developing writer.
Home Environments

On the basis of the parent questionnaire and discussions with parents throughout the study, several aspects of the home environment seem to clearly stand out as strong influences. The parents supplied books, materials and implements. None of these materials were particularly unique and included books from the public library, as well as scrap paper discarded from a parent's place of work. Even more important, the parents often engaged in writing themselves. They related instances of encouraging the child to join them in functional writing activities, such as adding a portion to a letter being sent to a grandparent in another city.

Another contribution which parents made was to read to their children. During the school year, many parents asked for names of authors and books, and mentioned how much pleasure the fine books labeled as literature for children were bringing to themselves as well as their children. Probably many of the story sessions at home during their pre-school years provided the children with their earliest encounters with written language. Children who hear and read from well-written books by noted children's authors often become comfortable with the idea of communicating a message through writing, just as they are able to understand a message which an author presents to them.

Family Interactions with the Child

Just as these parents expected their children to learn to read and write, they were willing to provide whatever assistance they could. They attended parent-teacher meetings, and asked questions. They were able to notice growth in their child's writing and let the child create
without concern that "bad habits" were developing if children made errors according to adult standards. They were able to accept the idea that learning to write by trying, making mistakes, and gradually becoming more competent was similar to their own attempts to learn, for example, racquetball, or a craft, such as macrame. This attitude was akin to that of the parents of the subjects that Read studied. He notes, "It is the opportunity for invented spellings that is limited to relatively few children. This opportunity requires the coincidence of a child's interests and inclinations with the minimum of required knowledge and especially, with a parental tolerance for what appears to be the development of bad spelling 'habits'" (1975, p. 19). Siblings, perhaps unknowingly, also influenced the subjects' development of writing, especially in the cases of the subjects who were younger children in the family. As the older sibling did homework, or even played school, the youngest child often wanted to join in the activity. This could have been a contributing factor to the differences found, between the three girls and three boys, as each girl was the youngest, while each boy was the oldest in their families.

Pre-First Grade Educational Experiences

All of the children attended kindergarten at Way School and, except for Ted, had at least 6 months or more of nursery school. These experiences no doubt contributed to the fact that all of the children were able to write all the lower case and capital letters of the alphabet. Being in a group setting had helped the children to become aware of the use of their name to label their papers and possessions. School experiences also contributed to the use of correct spelling when each
child wrote on the first day of school. Read (1975, p. 19) notes that a belief that English spelling is governed by a standard of correctness and that it is hazardous to attempt to guess at a spelling, is a prevailing one in our society. The writing of isolated words, instead of a message could be related to the memorizing and writing of sight words as taught in the kindergarten program. The teaching of a basic sight vocabulary before putting the words together for the reading of continuous text is a common component of many beginning readings programs. However, the expectation that writing a meaningful message was not considered appropriate for school writing was seen in all of the earliest samples by the children.

First Grade School Experiences

The classroom that the children entered for first grade has been described as having a "whole-language program" (Milz, 1981a). Learning to write was not locked into a half-hour time period, just as living was not locked into compact little time units. Instead, writing--along with reading, listening, and speaking--occurred naturally and spontaneously all day long. An environment such as this one allowed children to use language as they needed when it filled a particular purpose. The whole-language environment allowed them to learn writing in a home-like atmosphere similar to the one in which they once learned to speak. Writing dealt with real situations and subjects about which children wished to communicate. Topics for writing were those which students were interested in, and time was flexible enough that children could write as they wished during the school day.
A wide range of interests and abilities could be accommodated in the whole-language atmosphere. Competition was eliminated in that a short message, such as I LK U (I like you) was just as valuable and worthy of a response from the reader, as was a full-page letter. It is only here that children learn to write through using writing to interact with others. Children were accepted as writers, and learned as they wrote in a personal, functional manner.

The whole-language program encouraged the bridging of home and school environments. Parents could play a very active role in the program as they assisted in the classroom and provided support to the children and their teacher. Just as they read to a child at home, or listened to the child read, any parents who could spare the time provided this valuable interaction at school. Parents wrote notes for the child to read and involved the child in the writing of notes needed to communicate information to the teacher. They became involved in the book-making process by providing typing assistance in processing the children's manuscripts. Parents became more knowledgeable about the classroom and were able to formulate questions about the learning process, as well as support a very busy teacher. The children were influenced and benefited from the close relationship between home and school instead of trying to learn from two different or conflicting environments.

Hypotheses Generated from Question 1.

1. Children come to first grade with knowledge about writing.

2. Most children have engaged in writing experiences prior to first grade.
3. First graders are ready to use writing in the beginning days of the school year.

4. First graders do not need to master pre-requisite skills, such as correct formation of lowercase and capital letters, spelling of words or sounds, in order to be allowed to begin writing.

5. Parents play an active role in literacy development. Literacy is an integral part of home and family life.

6. Play experiences and interactions with siblings contribute to literacy development.

7. Reading to children develops an awareness of the forms and conventions of written language.

8. Children who have been read to a great deal are comfortable with the idea of creating stories themselves. They are able to use knowledge about stories and written modes to formulate strategies for producing writing.

9. Given opportunities, parents can play an active role in supporting language development in the classroom.

10. Parents can understand that errors in a child's writing can signify growth and independence and not be the formation of "bad habits."

11. School programs can have a positive influence and help to expand children's concepts of writing function.

12. Writing and reading of words in isolation can cause children to create pieces of writing with no meaningful message.

13. Whole-language classrooms support the beginning writer by encouraging writing which is personal and functional.
14. When literacy experiences at school and home are similar, it has a positive impact on literacy development.

15. Cooperation between parents and teacher plays a role in literacy development. The learner does not have to adjust between two different or conflicting environments.

The Children as Writers

Becoming a writer is rooted in the way human beings learn language. As language serves a legitimate need in the lives of children and adults, it grows because of what it has to do. As children feel the need to communicate to a particular person or audience on a daily basis, they choose the type of writing which fits their purpose. They determine strategies to produce a message which states what they need to say. The recipient plays a significant role in encouraging development as writer and reader interact through the medium of print. Specific research questions are answered to describe the children as writers.

**Question 2: How much will self-motivated children write?** First graders want to communicate in writing. When writing is an integral part of the classroom and related to the child's individual purposes, writing is produced frequently from the first day of school and continuing throughout the school year. The six subjects spontaneously produced a total of 37,001 words ranging from a high of 10,889 words to a low of 2,526 words. Nearly 14% of this writing was produced at home. To place these numbers into perspective, it helps to look at the amount of writing that Hunt obtained from his fourth grade subjects. Hunt
(1977, p. 91) noted that for a fourth grader to write a thousand words on topics related to the normal course of their school work sometimes took a whole school year. Applebee (1981, p. 30) did not list actual word counts, but instead looked at amounts of time devoted to writing in high schools. He observed that personal writing had little place in the curriculum of high schools surveyed in his study, while only 3% of lesson time was devoted to longer writing which consisted of at least a paragraph of coherent text. If the evidence found in these studies is representative of other classrooms, it is easy to conclude that many classrooms even with older students are not writing as much as the first graders in this study.

Several conditions existing in the classroom account for the large amount of writing. Each time the children wrote, they had a personal reason for producing the piece of writing. These reasons varied from answering a note, creating a story for someone to enjoy, or even writing as much as possible in a journal in order to complete it, and be allowed to take it home. When Scott realized he was within 10 pages of the end of his notebook, he wrote more words during that week than any other subject in the study. To allow for this personal flexibility, no writing was assigned, and children had opportunities to write to suit their needs rather than being given a defined writing period. Graves (1975, p. 211) observed that allowing students a choice of topic as well as flexibility in time and duration of writing had a tremendous effect on the amount and quality of writing. He also concluded that large amounts of assigned writing actually inhibit the range, content and amount of writing done by children.
Many children apparently do write because they want to. As the year progressed, they also were able to write with greater ease and produce proportionately larger amounts. Each of the six children at least doubled their production of writing; one subject wrote five times as much, changing from 100 words the first week to 500 words during the last week. However, depending on the particular purposes of the child, there were weeks where a child produced an unusually large amount of writing, or the opposite, a very small amount.

Different amounts of writing were produced by each of the six children. A definite sex difference could be noted between the girls and the boys. The girls wrote over twice as much as the boys. Vikki, who wrote the least of the girls still produced over 1,000 words more than the boy with the highest amount. Yet each of the boys did write and evidence of development occurred during the year. Each of the boys was the oldest in their families, and possibly lacked some of the experiences with writing which happened to the girls. Further research is necessary to define possible causes.

Nearly 14% of the writing was produced at home. Though it is a small amount compared to the amount produced in the classroom, this writing is significant in that it is very similar to the writing produced in the classroom. Each of the children with the largest amounts of "at-home" writing kept a journal, but each wrote notes and stories spontaneously to suit their needs at home. Both Clay (1975, p. 1) and Bissex (1980, p. 110) note that "at-home" writing they collected was more creative, and more varied than assigned school writings. The type of classroom described in this study allows children time and
flexibility as they explore the uses for writing. No chasm is created between school and home, and both can mutually support the developing writer. In school settings, unless teachers allow time for, and encourage spontaneous writing, they may never know the capabilities children have for writing. Instead, writing becomes a narrow skill which children may learn at school, yet are unable to apply and use in daily life.

Hypotheses Generated from Question 2.

1. When children write to meet individual needs, they write frequently choosing appropriate topics and times to write.

2. Children need many opportunities to write, but do not need assignments or allotted time periods to produce writing.

3. When spontaneous writing is encouraged at school and at home, children write frequently using similar topics and style.

4. When children write on a personal, functional basis, there are large variations in the amount of writing produced between subjects and within subjects over time.

5. When given the same opportunities to write, girls produce more writing than boys.

6. Children are able to produce more words per week as they progress through first grade.

Question 3: What types of writing are produced by first graders? Children entering first grade are competent language users, having mastered enough of their home language to communicate with peers and adults. They have formed many notions about writing and can use
writing to communicate just as freely as they use oral speech. Just as they were not told what to say, they were not told what to write. Instead, many invitations to write were given and time to respond was allowed. The children spontaneously responded by expressing themselves in journals, by writing notes and creating stories.

It should be noted that the classroom curriculum certainly influences the type of writing which children will produce. If workbooks requiring fill-in-the-blank answers are part of the program, children are likely to have written isolated words. Within the classroom under study, children added notes to a chart describing science projects. Perhaps a notebook designed to only contain science observations might have resulted in another type of informational writing.

In the years after the study, the teacher had increased the use of poetry within the classroom, and more children are attempting to create their own than was created by the subjects in the study. Stories are written sooner and more frequently than they were produced in the study. There are many children in the school who have written stories and are willing to share this type of writing. The kindergarten program now encourages children to dictate stories and have them typed in the School Writing Center. Also, a grocery store in the classroom had been a place where children have made many lists. Varied opportunities which do not trivialize children’s purposes need to be explored in classrooms if children are to begin to use many types of writing.

Journal entries comprised the majority of writing during the year, with note writing being second in importance. Each of these
types of writing allowed the beginning writer to build on their competence in oral language. These communications to a specific audience were less complex and abstract than other types of writing. As with speech, the children were not corrected on their developing use of various conventions in their writing. Staton (1982, p. 133) has described dialogue journals written by sixth graders as having a similar purpose. She sees writing of this type of "an initial developmental steps for beginning writers to provide extensive opportunity for successful communication in written language before asking them to try a more complex form."

The notes and journal entries in this study changed from a basic message such as I LIKE . . . , at the beginning of the year to complex messages which described persons and events, or allowed the writer to argue or question.

The use of stories began to occur as children were encouraged to try this form. The overall amounts are low in comparison to the extensive journal and note writing, but each child used this type at least once, often taking real-life situations and placing them in story format with formal beginnings and endings.

Upon examination of the individual samples, subtle mixing of the various types can be seen. Each type of writing could be identified, yet elements from other types were sometimes used, such as a salutation placed at the beginning, or a formal ending, THE END, in journal entries. If children are to learn to communicate and understand how to produce a variety of writing types, teachers must allow
flexibility as the child responds to a situation in a particular context with a type of writing.

Hypotheses Generated from Question 3.

1. The classroom curriculum has an impact on the types of writing which emerge as children write.
2. Given invitations to write, children chose the type of writing which suits their needs.
3. First graders begin to produce a variety of types of writing, as they use them in many kinds of reading, listening, and speaking experiences.
4. First graders prefer to write journal entries and do so most frequently.
5. First graders understand the basic forms needed to use each type of writing they control but do add elements of other types within a piece of writing.
6. First graders need to be encouraged to try many types of writing.

Question 4: What functions does writing serve for young children? First graders use writing purposefully and always with a good reason. As the children produced various types of writing, writing served several functions for them. Notes by their nature were interactional. As the children wrote stories or journal entries, they often wrote from personal experience which called for a personal function. Journal entries also elicited questioning from the teacher, and many children answered and then wrote questions in the text using an
interactional function similar to the use of this function in note writing. When the children entered first grade they needed to build a relationship with a new teacher, and learn the pragmatics of behavior and expectations of this particular classroom. The personal and interactional functions fulfilled this need and allowed the teacher and children to understand each other. These same functions were useful all year in getting to know and building a relationship with the teacher, but also were used with peers and other interested adults.

As the children used various functions, a sex difference could be determined. The boys used the personal function while girls used the interactional function the most. This finding about the boys was in contrast to Graves' (1973, p. 212) study, which found that boys seldom used the first person, especially the I form in their writing. In this study, boys used the I form as frequently as did the girls. These differences could be explained by the different purposes which children in the two studies had for their writing.

Journal writing was the most frequent type of writing found in this study. This encouraged the children to use the personal or interactional functions. In the classrooms that Graves studied, the children were given assignments to compose written problems in mathematics, place spelling words in sentences, record observations made in science, and write on teacher-given topics. When they wrote without assignments, many children produced "fantasy-type" writing, or pieces similar to those which were assigned. Informative and imaginative functions could be more useful in producing this writing as they were probably written in the third person form.
How a teacher organizes a classroom will have an impact on the functions which children use in their writing even when there are few topics assigned. Different teachers might find that other functions will be used by the children in their classrooms. Further research is necessary to determine which functions are used by children as they write, depending on the organization and focus of the writing curriculum.

Throughout the study, single as well as multiple functions could be categorized in a piece of writing. Perhaps this could account for the mixing of types of writing which was discussed previously. Although an informative function was used to present facts, the child could write from personal experience while sharing the information to interact with the particular person. This happened as Alice told of her knowledge of the sun's characteristics, while embedding the story in a letter to her teacher.

The children changed over the three segments in the frequency of use of various functions. They began by using personal and interactional functions about equally the majority of the time. By the third segment, the personal, interactional and informational functions were being used in nearly equal frequencies. This indicates growth and comfort in the relationships between the children and significant persons in the classroom. First grade is a time of rapid expansion of knowledge as many children begin to read proficiently during this year; and as they assimilate the information they gain, they also are able to use the informational function more frequently in their writing. Literacy expands in a print-oriented society as writing serves the child's
purposes. A variety of opportunities to write allows the child to utilize more functions. If a child only writes for instructional purposes, narrow or limited choices of function may result.

**Hypotheses Generated from Question 4.**

1. When first graders write to suit individual needs, they use personal, interactional and informational functions most frequently. Imaginative and regulatory functions are only used occasionally.

2. Choice of function is related to the opportunities to write which are allowed in the classroom.

3. Boys used the personal function most frequently while girls used the interactional function the most.

4. Function may cause a mixing of the forms needed for various types of writing as young children write.

5. As children's writing develops, use of the informational function increases to equal frequency with personal and interactional function usage.

**Question 5: Who is the audience in the classroom and home for the child's writing?** When children learn to speak they interact with significant persons in their immediate environment. Usually a mother or father are the first to understand the emerging speech of an infant, and they interact with the child providing support and response. Teachers can serve the same role as children write in school. Children share daily the same experiences and environment which allows the teacher to understand writing which may not have developed all the
conventional forms other adults may expect as they read. The teacher, though, need not be an exclusive audience; peers or parents who assist in the classroom often have this necessary knowledge.

Findings indicate that the teacher was the primary audience to which the six children directed their writing. She wrote many notes to the children, as well as read and responded to their journal entries. This daily contact gave the young writers support as they attempted to communicate through print. The children were able to be understood, received responses from her quickly, and frequently wanted to write again. Teachers do need to become knowledgeable readers of children's writing in order to understand the particular message of each child and be able to interact with them through print.

To be understood by a reader is a major concern of a writer. The children wrote to peers as well as parents who assisted in the classroom. Yet, as the children reached beyond the classroom, they were concerned that additional cues, especially conventional spellings, were in the pieces of writing. This concern often resulted in shorter pieces as well as less frequent attempts, although it reflected an awareness on the child's part of the needs of different audiences. The teacher, just as the parents of young children learning to speak, supplies a support system which allows children to reach out and risk the use of new forms they might not fully control, yet have an opportunity to try them and probably be understood.
Hypotheses Generated from Question 5.

1. The opportunity for daily interactions with first graders allows the teacher to be a significant and understanding audience.

2. Other persons sharing the first graders' classroom environment, such as peers or parents who participate in classroom activities can be helpful audiences to the beginning writer.

3. Children in first grade are aware of audience needs as the readers attempt to understand their writings.

4. First graders are aware of the needs of various audiences, and try to adjust their writing so the readers are able to understand.

Question 6: How does syntactic maturity in writing occur?

First graders are able to create phrases, clauses and sentences formed of a series of words. They have a sense of how a sentence is ordered, and understand the grammatical relationships between the words they choose. However, as they create a piece of writing they often form one long run-on sentence as they frequently have not developed the convention of using a beginning capital letter and ending period as boundaries which segment the piece into traditional sentence units. They do use alternative strategies such as spacing to form phrase or sentence-like units within their writing.

In order to look at the units of meaning for analytic purposes, the present study applied the concept of the "minimal terminal unit" or T-unit as developed by Hunt (1965). Findings in this study support
Hunt's conclusion that there is a steady increase in words per T-unit as children mature.

The mean word length of T-units is useful in showing syntactic development across grade levels. However, when looking at individual variation at different times over a one-year period, the figures reflect the limitation of T-unit analysis in that they did not show which syntactic structures are being used and developed by the children.

Syntactic maturity occurs quite naturally, provided children are given plenty of opportunities to write. All of the children were able to write simple sentences, as well as use the first person form during the beginning segment. These structures were especially encouraged by the journal and note writing which was produced in this classroom. Chapters 4 and 5 detail the main features used by the six individual children. Even in the early writings, there were compound sentences, questions and complex sentences with dependent clauses. By the third segment, all of the children were able to write complex sentences as well as write in the third person. Writings contained several meaningful T-units, usually with cohesive ties between them.

What is important to note here is that these children were not given grammar lessons labeling the parts of sentences. Instead they were actively engaged in purposeful writing along with functional uses of listening, speaking and reading. They responded to writing which they received or created new pieces of writing. They were interacting with print and other persons in the classroom and becoming aware of the syntactic structures used by other authors. As they wrote, they were
learning how to use a variety of structures in their own writing. The children were demonstrating Halliday's belief that "the child knows what language is because he knows what language does" (1973, p. 10).

Hypotheses Generated from Question 6.

1. First graders frequently use one long sentence instead of more finite sentence units with capital letters and periods.
2. The T-unit is useful in segmenting the writing of first graders.
3. The mean word length of T-units is a valid measure of syntactic development across grade levels.
4. The T-unit has limitations when looking at individual variation at different time periods during a single year.
5. Syntactic development proceeds naturally in children if they are given plenty of opportunities to write.
6. Early in first grade, children write simple sentences and use the first person form. By the end of the year, complex sentences in first or third person could be constructed.
7. Journal and note writing allow first graders to easily construct simple sentences as well as use the first person form.
8. Children do not need grammar lessons to develop control of needed syntactic features in their writing. They learn to use them as they need them.
Use of Conventions of the Writing and Spelling Systems

Young writers are engaged in a process of language development. They are using their existing knowledge of language, their need to communicate in oral and written language and their capacity as humans for continuous and on-going language development. There is a message in what they write, and children want to use the conventions of the language which allow the message to be understood by the recipient. As children become aware of spellings, punctuation marks, and spaces between words, they begin to attempt to use these conventions in their own writing in order to provide cues for their readers. For example, they begin to notice certain features, such as how plurals are formed by adding s, and apply this knowledge to form words like dogs as well as snowmans. Bloom (1970, p. 225) makes an observation about speaking which can be applied to the young child's writing, "Children's oral language is directly related to the adult model and is not an exotic language that is eventually supplanted by a different system."

Specific research questions are answered to describe how the children use the conventions of the writing and spelling systems.

Question 7: How do children learn to use space on their paper in the following areas: word boundaries, linearity and directionality, utilization of space and letter size? Most of the children placed distinct word boundaries around words at the beginning of the study, although two children, Tagg and Ted, gave some insights into how children learn to space between words. As the boys copied words from various sources, they used spacing between words as seen in the original.
When they first generated sentences, spacing between words was very flexible. They represented as many as five words within one boundary although they also used spacing between many words even if the word was represented by only one letter. Multi-syllables in a word were frequently treated as separate words. There were a few invented spellings which had spacing within the word that seemed to indicate the child wanted additional letters but was not sure of what to use. As the children generated conventionally spelled words, they also separated each word by definite boundaries. Growing awareness of what the word looked like graphically in relation to other words as well as the sound of the words in a sentence when spoken seemed to guide the children as they made word boundary decisions.

All of the children understood the directional patterns used in the English language when the study began. They wrote from left-to-right and from the top to bottom of a page the majority of the time. This pattern was observed even when children placed words around the outline of their drawings. However, evidence was found that children deliberately varied the left-to-right directional pattern when they believed the conventional pattern did not accurately represent oral speech when they wished to write it. Although on the surface this may look like the child is regressing in writing development, questioning and a discussion of how the writing was produced provided very logical reasons for the children's decisions, and reflected an awareness of a relationship between sound and print.

As children used a sheet of paper, they utilized the space on it in their own individual ways. At the beginning of the study, the
only characteristic they seemed to share was a desire to fill the page. Some wrote at the top of the piece of paper, but when they had no more text to add they filled the remainder of the page with a drawing or wrote their name in large letters. Others filled every line as well as producing multiple entries on a page until reaching the bottom. When the study ended, most were using the alternate guidelines on lined notebook paper, which was their most frequent choice of paper. They had a sense of being able to stop when finishing rather than adding a drawing or more text to fill the page.

As children wrote, they chose paper to fit the requirements of a particular piece of writing, and were allowed to self-adjust the size of the written text to suit their purposes. If the children were making a poster or mural, they wrote with large letters so that the message could be seen from far away. However, at their desks the children were most comfortable with regular pencils and notebook paper with 5/16" guidelines. When the study began, most of the children could adjust their writing to the smaller 5/16" guidelines found on the notebook paper. Two of the children ignored the guidelines and wrote letters ranging from 3/4" to 3" high. This was completely acceptable, as it allowed them to write as they needed. Regardless of the overall size, all of the children often made both capital and lowercase letters the same size, especially those which had the same formation and differed only by size. By the end of the year, all of the children used the guidelines on the paper they chose, and adjusted their letter size accordingly. This happened gradually as children were ready to
write in smaller-size letters, not because the teacher had suggested it.

Many first grade classrooms would not allow children of this age to use the materials which were frequently chosen during the study. They would be required to use thick primary pencils with paper containing guidelines of 1" ruling with light guideline for lowercase letters at the half-inch space. In fact they are not expected to use adult proportions in their writing until fifth grade, according to some handwriting experts. However, both the recommended paper and pencils contribute to slowing the writer down, causing the child to concentrate on formation of the letters rather than what they wish to communicate. The materials used by the six subjects no doubt contributed to the large amount of writing which the children produced. As they were given the option of self-adjusting the letter size, they wrote as needed and did not encounter difficulty if they wanted to write in a smaller or even a larger size at the particular time.

Hypotheses Generated from Question 7.

1. Most first graders have some established sense of wordness, and place spaces between words at the beginning of first grade.

2. All first graders place spacing between words when copying text from an original source.

3. As children are learning to determine word boundaries, they often treat multi-syllable words (TO DAY) as two separate words.

4. As children determine word boundaries, they are influenced by oral speech and by their developing word sense.
5. Growing awareness of what a particular word looks like may cause children to leave spaces within words if they are not sure of which letters they should use.

6. When children use conventional spellings, they also use appropriate word boundaries.

7. When children use invented spellings they may separate the word units but may also join several words as a single unit.

8. First graders have established left-to-right, top-to-bottom directionality used in written English at the beginning of the first grade.

9. First graders may deliberately vary the directional pattern to represent oral speech as spoken by the characters facing left or right in their drawings.

10. Children are able to self-adjust their writing to fit the size needs of various kinds of paper and purposes.

11. Most first graders are able to produce letters in proportion to the guidelines found on notebook pages by the end of the year.

12. First graders are comfortable using the same pencils and kinds of paper used by the general population.

**Question 8:** How do first graders use capital and lowercase letters as they write? When the study began, all of the children were aware of the formation and use of lowercase and capital forms of the manuscript alphabet. These forms had been the subject of lessons in the kindergarten program, and each parent reported the children had shown interest in learning the letters during the pre-school years. A
few letters still presented difficulty, but the children responded to individual help as needed. Considering how much skill in printing these children brought to first grade, it is important to realize how necessary teacher observation is during the first days of school as large amounts of time are often spent teaching the alphabet during the school year.

Although some children may need more help in letter formation than the children in the study, what frequently happens is children are practicing placement of letters on a guideline or how to draw neater circles and lines. Yet learning the manuscript alphabet should be for the purpose of allowing the child to put down ideas, to tell stories, or to record information, and not to just be concerned with letter formation with capital and lowercase letters in proper places.

When children are writing daily in purposeful activities, their writing increases in legibility and gradually includes lowercase and capital letters in conventional places. All of the children placed capital letters conventionally most of the time, although at the beginning of the study this fact was masked by their use of capitals in many lowercase positions. By the end of the study most of the children were able to also place most lowercase letters conventionally. Making a decision between the two forms usually involved learning to shift to a lowercase letter in a space formerly filled with a capital by the child. As the children began to use more lowercase letters in general, they placed them to begin sentences or even their own names, possibly over-generalizing that lowercase letters should be used more frequently.
Capital letters were not placed randomly, although the children did not limit the placements to the first word of a sentence, proper names and the personal pronoun I. They were logically placed at the beginning of words, to mark syllables (To Day), or for emphasis as a voice inflection is used in speech (Very, Very or AND).

When the size of the letter was the only difference between the capital and lowercase form, the choices were indistinguishable as the children frequently made all lowercase letters closer to the capital-letter size. If capitals were found in medial or final positions they usually were those with the same capital and lowercase form written in the larger size.

During the study, all children could copy using the lowercase and capital form as in the original. When they generated a message, differences such as the use of all capitals were observed. If children are to learn to use these letter forms to suit their needs, they do need to write and begin to make choices which will allow them to write what they wish to say.

Hypotheses Generated from Question 8.

1. Many children can produce most of the lowercase and capital letters in manuscript form at the beginning of first grade.
2. First graders will copy the same lowercase and capital letter forms found in an original piece of writing.
3. Children who write frequently will place lowercase and capital letters conventionally as they generate messages by the end of first grade.
4. Children place lowercase and capital forms conventionally earliest in the words they write frequently.

5. Non-conventional capital letters are not placed randomly. They are used to mark syllables, to begin words, a line of print or sentences, as well as for emphasis.

6. Most first graders use the capital I to note the personal pronoun I.

7. First graders frequently make both lowercase and capital forms the same size, thus making it difficult to distinguish their actual choice unless the forms have different configurations (Ee).

8. When capitals are used in medial and final positions, they are usually those letters (Kk) which are distinguishable only by size.

9. Children increase their use of lowercase forms during first grade, and also place them in places such as the beginning of a sentence or name which were previously filled by capitals.

10. First graders attempting to learn cursive use more capitals, although they attempt to join them as occurs with lowercase letters.

**Question 9:** What hypotheses do children form about the orthographic system as they begin to spell? In recent years, spellings by first graders have been examined by many researchers (Read, 1975; Bissex, 1980; Chomsky, 1975; Beers and Henderson, 1977). Chomsky (1975, p. 36) notes, "They just use letters according to their names or
sounds, putting down words as they hear them, and in the process, carrying out a splendid phonetic analysis. Their spellings are surprisingly uniform from child to child." All of these researchers conclude that even as children are entering first grade, they can categorize sounds as they invent their own spellings prior to formal instruction. The children can construct words, hypothesize, revise rules, and are very systematic and logical in their approach to spelling.

This study supports the findings of the above researchers. It demonstrates that children entering first grade are aware that alphabetical letters are used to write, vowel and consonant letters represent different sounds and that certain combinations of these letters form a particular word. The children frequently asked, "How do you spell it?" indicating a belief that there is a standard of correctness used by adults in their environment. When such a question was asked by the children in the study, it was turned back to them with "How do you spell it?" and they were encouraged to write independently. At this point, the children produced spellings using the following strategies:

1. Spelling the way a word sounds. As speakers of the English language, children brought their knowledge of oral language into their writing. As Ted wrote NE SMR NEE (nice morning), he placed the SMR (smor) together just as in his oral speech pattern. He also segmented the spelling to indicate his knowledge of syllabication. Many children used what Read (1975) identified as a letter-name strategy, R (our, are), U (you), choosing the names of letters to represent the sounds in the words they needed. As the children added morphemic endings to words, they
wrote as the words sounded orally to them, RDEN (writing),
PLAYD (played), DIZ (does).

2. **Spelling the way a word is articulated.** The children chose
short or lax vowels based on their awareness of how the vowels
are articulated in relation to the way the closest letter name
is articulated (Read, 1975). When, for example, they placed an
_ in the teacher's name MESS MEIZ (Miss Milz), they indicated a
belief that the sort i sound in the name is closest in
articulation to the letter name of _e. The choice of p and z in
PCOZ (because) was made as the sounds are formed in the same
way in the mouth as b and s, except for the difference of
voiced and unvoiced. Read also identified the tendency to omit
nasals, m and n before consonants, CAT (can't), because they
are not articulated but instead resonant in the nasal passages
just before the consonant is articulated. Each of these
discoveries of Read was supported in the writing by the
children in this study.

3. **Spelling the way a word looks.** The children were surrounded by
print in their home and school environments, and many spellings exhibited growing awareness of the graphic appearance of a
word. As Tagg wrote STOP Sign, he used STOP just as he saw it
on an actual sign. As the children wrote longer and more
complex words, many had only a one-letter difference, BECAUSE
(Because), while others contained all the letters in the conven-
tional form but in a mixed-up order, FORM (from). The children
occasionally practiced a word economy based on the similar
appearance of two words. When This *is* was needed, it was written as THIS instead of repeating the IS a second time for the word *is*.

4. **Spelling using a combination of the above.** The letter-name strategy was not used in isolation as children became aware of the graphic appearance of a word. When Tagg wrote U (you), he added EY to form UEY which was closer to how the conventional form looked. Even though a graphic image of a word seemed to be emerging, a sound-to-print relationship could be noted in portions of many of the spellings BECAUSE (because). A reliance on spelling as the words sound could be seen in some choices, LAQ (thank you), although an awareness of sound combined with the graphic appearance in later spellings could also be noted as spaces segmented the invented spelling into separate word units, T Q (thank you).

As the children used words that were helpful to them in communication with others, there was a movement toward conventional spelling of the high-frequency words. The journal and note writing which occurred in this classroom caused words like Dear, Love, and January to appear on the class list of high-frequency words along with words used frequently by all writers of the English language (the, I, is). As the children produced the same words over and over again, as well as read them within the classroom and home, these words were conventionally spelled the majority of the time. Staton (1982) noted that the least able spellers she studied improved greatly when their attention was
focused on accomplishing communicative functions. Journal and note writing provides a natural learning environment which allows this interaction to take place. However, the effect of frequent usage also should be considered, as the child who used the most varied vocabulary with the least repetition was the least conventional speller in this study.

When the children wrote words of low frequency, their spellings were systematic and logical, reflecting a growing knowledge of the phonological and graphic systems. Spellings at no time remained static or in a permanent invented form. If an invented form was produced, it was changed as the children gained new information or insights. Conventionally spelled words also were later seen in invented form as new insights changed the child's perception of the entire system or even disorganized it (Clay, 1975). These concepts were evidenced repeatedly in the children's spelling during this study. There was an overall movement toward conventional spelling, yet at the same time, a reaching out to write new words, perhaps in invented form, which the children needed for communication. The children did not pass through stages or levels of spelling which once mastered, allowed them to spell more complex words. Instead they applied various strategies in an attempt to spell the words they needed, gaining control as they used words over and over again or as they deepened their understanding of the complex rules underlying the English spelling system.

**Hypotheses Generated from Question 9.**

1. Children bring knowledge of oral language to their understanding of the spelling system.
2. Children bring knowledge of written language in their environment to their understanding of the spelling system.

3. First graders are aware that English spelling is rule-governed at the beginning of the year. They indicate knowledge that common spellings are used by adults in their environment as they communicate.

4. The use of more invented spellings by boys than girls indicates they are greater risk-takers or have less experience with writing as they write less than girls.

5. The words of high frequency are the earliest to be conventionally spelled and are used conventionally most of the time.

6. A child who writes a large variety of different words may consequently spell less conventionally.

7. Children are influenced by the context in which a word is used, phonological, graphic and articulatory features, as well as word frequency as they produce spellings.

8. The spelling of words in context are influenced by the preceding or following words (THIS, this is).

9. The classroom curriculum influences the development of a high-frequency word list within a particular classroom.

10. Children write the same words of high frequency used by all writers of English.

11. Invented spellings change as children apply new knowledge and insights when they use the words on other occasions.
Question 10: What uses do children make of punctuation in their writing? The children in the study were able to copy punctuation along with the text from an original piece of writing. They placed the periods at the end of a copied news item, as well as commas in the date placed on the chalkboard. Punctuation was found in many places along with the print within the environment in which the children lived. However, when the children generated writing, they created opportunities where punctuation might be placed conventionally but did not always use it themselves. Instead they often used alternatives, such as spacing of one sentence on a line, or placing each sentence on a separate page. This omission of punctuation did not interrupt the meaning.

The first graders in this study found the period was the most useful mark as they produced writing. As their writing grew longer and more complex, they ended a paragraph-length piece with a period. Within the text, if a sentence ended in the middle of a line a period was not placed at the right margin of a page if a sentence ended there. The use of the period did not seem as crucial if spacing served the same purpose.

As various syntactic features appeared in the writings, accompanying punctuation frequently was used. Alice used commas in a series as she constructed lists. Laurel wrote contractions which called for apostrophes. Tagg discovered hyphens could be used to divide words as he reached the right margin of a page. This evidence supports the findings of Calkins (1980a, p. 86) that children learn punctuation more effectively as they actually engage in the process of writing. As the
children in the study explored how to produce writing to communicate with a reader, they also were discovering how to use the system of punctuation to further aid the reader's understanding.

Hypotheses Generated from Question 10.

1. First graders will copy accompanying punctuation with the text from an original piece of writing.

2. First graders are aware of punctuation marks and place various kinds within the writing they generate even during the first weeks of school.

3. First graders create opportunities where punctuation might be placed conventionally, but tend instead to use alternatives such as spacing or separate pages, instead of the actual marks.

4. When children begin to produce new syntactic features in their writing, they frequently use accompanying punctuation marks (apostrophe in contractions).

5. The period is the most useful and used punctuation mark in first grade writing.

6. Punctuation is used more frequently in longer and more complex text.

7. Punctuation is used more frequently when there is a need within the text of a piece of writing, such as using a period to end a sentence in the middle of a line before beginning a new one.

8. The development of punctuation does not show continuous rise in use, but instead increases as the children perceive a need for it in their writings.
Overview of the Construction of Meaning Within Written Text

The construction of meaning must be the goal of all writers. Though a child may produce words, or even conventionally spelled sentences beginning with a capital letter and ending with a period, if there is no functional purpose the writing becomes sterile and useless. Evidence has been presented that the children in this study were prepared to write isolated words for their first pieces of school writing. They only wanted to write what they controlled conventionally. Yet as they were invited to interact and actually communicate with readers, they began to focus on the construction of meaning. They did not ignore the conventions that writers use in order to help readers understand, and they learned how to use them in increasingly more complex ways as they expressed their feelings, thoughts, and ideas. Specific research questions are answered to describe how the children constructed meaning within their written text.

Question 11: What do first graders write about when encouraged to write daily? The children in the study were expected to write daily, and time was allowed in the schedule for them to be able to write. No minimum requirements were given though activities were planned that would enhance the children's natural tendencies as users of written language (see Methodology section, Chapter 3). Just as the teacher believed they would, the children wrote and wrote and wrote. The close relationship between what the children knew and experienced in their daily lives to the content of the writing can easily be noted.
To summarize what the children wrote about, it is helpful to consider the content found in each of the three types of writing:

**Notes**

All of the children wrote notes to meet varied purposes. Most of their notes supported growing social relationships which took place between the children and particular audiences, such as the teacher or other interested adults. The children often wrote variations of *I like you, Do you like me?* during the school year. As they interacted with others through print, they described family and peer relationships including what went wrong during temporarily broken friendships. However, notes were not only produced for social reasons. They served as reminders of, for example, the time of an important meeting or to help to remember to find or bring a particular item to school. Greetings helped the young writer to celebrate a friend's birthday or a holiday by extending personal wishes to the reader. Thank you notes acknowledged gifts and letters received by the class.

**Journals**

Writing in the journal represented the widest range of topics. Poetry expressing feelings and describing imaginary places appeared in some entries. Puzzles and riddles were placed on various pages for the teacher to solve. Most of all, the journal was used to mirror what was important in the lives of six-year-olds during the 1976-77 school year. These entries reflected their personal experiences at school and home. Class friendships were listed in *I like* sentences. Class discussions and activities were recorded. Ted described making snowflakes to hang from the classroom ceiling while Tagg referred to a lesson about George
Washington. At home, subjects included family happenings, such as playing ball with Dad or skating on a backyard ice rink.

The anticipation of, as well as the passing of holidays and seasons were chronicled in many journal pages. Many children referred to the removal of their family Christmas trees as well as finding a basket of goodies at Easter. These entries noted exciting cultural happenings or customs within family settings which were important to that particular child. The winter season was especially snowy that year and many children described playing in the snow on different occasions.

Journals reflected the particular experiences of each child. Laurel was very interested in gymnastics and frequently described her gymnastics classes. Losing a tooth is an exciting event in a first grader's life, and was duly recorded in several notebooks. Tagg's family placed their home up for sale, and the stream of prospective buyers was described in his journal. When they moved to their new home, the moving van used to accomplish the task was of major interest to Tagg. Many children had pets to play with and write about. Several children went on exciting vacations. Other entries that discussed monsters like Godzilla, dinosaurs and war described interests that children developed while watching TV, reading, or talking with peers though they had no personal contact with these subjects.

No two journals were exactly alike. Some pages reflected similar interests, but each journal overall represented the uniqueness of each individual child. The journals also provided a glimpse of interests during that particular school year. In 1980-81, the contrast
between years was especially noted as a fad of collecting stickers swept the country. When children were allowed to choose topics, current child-culture interests, such as the sticker collecting or more recently the construction of friendship pins are apt to be described by the writers. Teachers not only observe children learning to write when this happens, but they also can understand what children are excited about in their daily lives.

**Stories**

Most stories were factual accounts of experiences or events within the children's lives. Tagg decided to write a story about the moving van which moved his possessions to a new home. Other stories reflected children's personal interests such as when Ted wrote about a car salesman, during a time when he enjoyed playing with toy cars and was deeply interested in everything he could learn about cars. He created a fictional character while using a subject he knew a lot about to build the plot and setting for the story.

As they wrote stories the children began with their own life experiences and transferred them into the needed elements of a story. Professional authors in discussing the creation of their published manuscripts often mention this same process has occurred in their writing. Children need to begin with what they know and have experienced if they are to create meaningful stories for others to enjoy.

**Hypotheses Generated from Question 11.**

1. When children are allowed to choose what they wish to write, the content of their writing is closely related to what they know and experience in their daily lives.
2. Notes by first graders are used to support growing social relationships between the children and significant persons in their environment.

3. Children write notes to remind themselves of important events or to help them to remember something.

4. Notes serve as greeting cards for birthdays and holiday celebrations as children convey their wishes to a reader.

5. Thank you notes are written to acknowledge the kindness of others to the children in the class.

6. Journal entries include poetry, puzzles, riddles and most of all, a glimpse into what is important to children at the time of the writing.

7. Children write about personal experiences at home and school as they produce a journal entry.

8. Customs practiced within family settings are described by children in their journal entries.

9. Observations of seasonal happenings and occurrences are frequently recorded in journal entries.

10. Journal entries reflect the particular interests and concerns of the writer. They are unique creations of that particular child.

11. Journals reflect common interests, such as current fads, shared by children.

12. First grade stories frequently are factual accounts of experiences or events occurring in the child's environment.
13. Most first graders are able to take real-life experiences and use them to develop plots and settings for a fictional story.

**Question 12:** What language cueing systems do children use to construct meaning? Writers want to communicate meaning to a reader. This fact is certainly true of the children in this study as evidenced by the findings presented in Chapters 4 and 5. The results of this study confirm the observations of other investigators of young children's writing (Read, 1975; Bissex, 1980). Bissex describes her son Paul as a writer in a statement which can be applied to the children in this study:

Although Paul was proud that he could write, writing never seemed only an end in itself, a self-justifying activity. Paul, like his parents, wrote because what he was writing had meaning to him as an individual and as a cultural being. We humans are meaning-making creatures, and language—spoken and written—is an important means for making and sharing meanings (p. 107).

When the children in the study were given many opportunities to communicate in writing, the results suggest they learned to write in a similar way to the way they once learned to speak. Their writing developed in a social setting using the semantic and syntactic systems of language. The answers to questions 1 through 6 indicate that writing is a complex language process, yet six-year-olds enter first grade understanding many aspects of writing, and they constantly grow and develop during the year. They can learn to write through interaction and experiences with others. The study demonstrates they are aware of the needs of an audience, can determine the type of writing which is appropriate in a particular setting, use syntactic features other
writers of English produce, and write purposefully. None of the evidence presented in Chapters 4 and 5 was incompatible with the strategies that adult writers in the children's environment were using to produce writing. The children's writing contained salient features that adult users of the English language produce in their writing.

As the children wrote to interact with readers, they discovered that certain conventions are used by writers to aid the communication process: linearity and directionality, spacing between words, spelling, and punctuation. The answers to questions 7 through 11 describe the use children made of these sub-systems of the orthographic system of language. The rate of development varied according to the effect on meaning. Spacing between words, for example, was conventionalized early in the study by most of the children while punctuation was omitted the majority of the time, indicating spacing was possibly more critical for a reader's understanding.

Children learning to write need teachers (and other persons) who will allow them to use writing as they develop control over the process of language. In 1978, Graves surveyed young writers in a report to the Ford Foundation. A typical response was that good writers should "be neat, space letters, spell good, and know words," yet Graves was unable to find even one child who spoke of writing as being able to provide information of interest to others (pp. 17-18). The children in this study demonstrated they could determine meaningful uses for writing which communicated to others. As they used writing they gained knowledge of the writing system and change occurred in
their understanding of the semantic, syntactic and orthographic systems which allowed them to create more complex meanings for others.

**Hypotheses Generated from Question 12.**

1. First graders are able to construct meaningful messages in writing.

2. School setting, as well as societal attitudes can influence children to focus on the conventions of writing while ignoring the need for writing to be meaningful.

3. First graders are able to learn to write in a way similar to the way they learned to speak—through social interaction and experiences with others.

4. Children's writing contains the salient features that adult users of the English language produce in their writing.

5. Children focus on conventions of writing as they realize print conveys a message and by using certain conventions they aid the reader in understanding their message.

6. The various writing conventions develop at different rates depending on how crucial they are to the writer's ability to construct meaning for a reader.

**Implications**

Through their writing the children in this study gave their teacher insights into how they were learning to write. What, then, does this suggest? The implications generated from this study will be presented for the following two areas: research and classroom practices.
Research Implications

The most promising area emerging from this study as significant for further research is the unique perspective which arises from teachers as researchers within their own classrooms. With the exception of a few studies of writing (Gerritz, 1975), researchers have come from environments outside the classroom. Though many excellent studies have yielded new insights as children write when an outside researcher is present, the everyday activity of a classroom is interrupted to some degree once the researcher enters. The teacher in a dual role as researcher is able to continually observe the subjects on a daily basis as the normal classroom activities are carried on. The particular constraints of the classroom curriculum as well as their effect on the child's purposes for writing can be examined as they occur naturally and spontaneously. This added dimension allows an overall picture of the writing which occurs in the daily classroom setting to emerge.

Further study should be devoted to describing writing produced by children in different kinds of classrooms. The classroom described in the study is a whole-language classroom where children learn to read and write using trade books instead of a basal reader program. They are surrounded by books written by professional children's authors which are not condensed or edited to fit a limited vocabulary. In other classrooms, specific phonics or grammar programs might cause children to use rules they have been taught as they determine sound-to-print relationships. These different environments need to be researched to determine the influence of various classroom programs on children's writing.
Studies of the writing of children from different backgrounds need to be conducted. Many people are quick to say that children in this study are "affluent," which accounts for their particular writing development. Yet this may well be an over-simplification, as children of various backgrounds are being encouraged to write. A New York Times article (1983) describes the work of Lucy Calkins as she has helped a public school district in Brooklyn to develop a writing program where children as young as five are writing prolifically in school settings. The article notes that 70% of the district's children come from homes that are disadvantaged, and for one-third, English is not their native language. Clearly there are many questions still unanswered as to what factors influence writing.

The present research calls for more case studies of six-year-old writers in order to provide a more complete description of writing development on the writing produced at this age. The six children were each very different individuals. Further studies might bring out the richness of these differences which occur as other children learn to write. Rather than current attempts to sequence learning, or to label children as slow, average, or gifted, it might be possible to build programs which support each child while drawing from the many elements which make each unique.

Longitudinal data is also needed to describe writing development over longer periods of time than the one school year chosen for this study. Children are becoming aware of writing long before school entry, and by first grade show evidence of many past experiences. A number of studies similar to that of Taylor (1983) and Heath (1980) of
children in homes, nursery school or kindergarten settings are needed to provide a description of development within the writing process at younger ages. Writing development also does not cease with the end of first grade, and information on older children is called for. In-depth studies of children at different grade levels could be triangulated (Guba, 1978) to provide information over a span of time.

Finally, this study suggests the need for more study of the learning process in general as individuals learn to write in group settings. What is the influence of peers as children write? What is the teacher's role in helping a child learn to write? What factors outside the school including the home environment relate to writing development? Many evaluation systems imply the child only learns what is directly presented by the teacher in the classroom. Yet if writing is an interactive language process as this study indicates, such a concept is hardly valid, and could be limiting a child's possible writing development. The complexity of how and why children learn to write deserves much more research.

Classroom Implications

Helping children to write well is a major concern of classroom instruction. The findings of this study suggest a number of implications which support consideration of change from many current classroom practices.

The six subjects exhibited an awareness of writing when they entered first grade. This finding calls for direct observation of each student so a new teacher can build on previous knowledge. Classroom
activities need to be adjusted on the basis of this information. For example, the ability to copy from an original piece of writing was documented early in the study yet as children generated writing, unique differences began to emerge. Many classrooms have children copy sentences from the chalkboard as a beginning writing activity, yet the quality and depth of the learning taking place through such an experience needs to be questioned. Are the children giving the appearance of being able to create writing when in reality they are simply modeling the original in a rote manner? As Ferreiro and Teberosky (1982, p. 272) state, "Reading is not deciphering; writing is not copying." A variety of meaningful print experiences needs to be provided which encourage each child to communicate while discovering how writing is produced.

The large amount and variety of the spontaneous writing produced by the children in this study suggest that children will write if involved in meaningful communicative experiences. Opportunities to respond to notes, make lists and signs, create stories, or keep a journal are only a few of the many ways that writing can be a part of the young child's school curriculum. The children need to be allowed time to write as well as to assume responsibility for their own production of writing. They need to use and see the uses for writing in a variety of settings, and then writing becomes personally valuable to them in their daily lives. This value helps writing become a lifetime experience.

In school, and in society in general, attitudes toward writing need to be re-examined in light of the findings that none of the
children wrote a meaningful message during their first days of school, yet they did change quickly after receiving meaningful written messages in their classroom. Teachers often tend to emphasize the use of correct form or conventions of writing. However, if function or meaning develops before form as this study indicates, teachers must learn to read beginning writing and respond without correction being the main focus. As children reach out to communicate they naturally create the opportunities to use the forms which will aid the entire process and through these many uses writing develops. When children or adults write they need to be concerned first with thought and expression rather than with the mechanics of writing, such as spelling or punctuation. In fact, risk-taking which allows communication of an intended message needs to be supported if children are to reach out to write what they mean. It is in an environment in which "learning how to mean" is the major priority that risk-taking flourishes.

Directly related to risk-taking are the errors which occur when children concentrate on meaning. These errors are not made because of a lack of knowledge, but because of knowledge that grows while children are constructing language to make it their own. There was no evidence in this study that errors stayed with the children to become "bad habits." If children are to gradually develop as writers and use conventional forms, they need to be given time to allow these errors to happen. Children learning to speak are not expected to begin with complete well-articulated sentences but are given support and encouragement by understanding adults. Children learning to write need these same considerations. This study suggests that children learn to write
if their strengths are recognized, and if teachers (as well as significant others in the child's environment) assume that all writing—no matter how rudimentary—does represent an attempt to communicate and is deserving of their respect and understanding.

Schools have at least paid lip service to the knowledge that children learn at different rates although in actual practice it is questionable what effect this knowledge has had on actual programs being implemented. This study emphasizes how different the six learners were. Each brought unique insights, varied experiences and different backgrounds as they entered first grade. Their writing facility was very different yet all shared a need to communicate and interact. In addition, they all learned to write for various functions and their writing moved toward conventional linguistic forms although for each child the functions differed and different aspects of conventionality developed in different rates and at different times. Thus, it is not appropriate to expect children to respond to the same topic or assignment as occurs in many classrooms. One textbook, or one spelling list, also is neither adequate nor practical. Instead, individual programs must be designed if children are to grow and develop into competent writers. If children are made to feel they are failures, because of inappropriate programs, they may never see writing as a useful part of their lives.

Assessment of children's writing must be viewed from the standpoint of continuing maturation or growth rather than attaining perfection or mastering some isolated skill at a given level before moving on to the next one. When evaluating writing, correctness must be allowed
to give way to errors as children re-organize their thinking. Samples of actual writing should be saved so that growth can be noted, especially by the young writers themselves. Evaluation needs to provide information about development as well as support the writer's attempts.

This study emphasizes the importance of a close relationship between school and home. This study could not have been implemented without the help and support of parents. In fact, the working relationship between the parents and the teacher which developed during the study has many implications for the development of literacy in children. As the parents became involved in the study by collecting writing samples at home, many became aware of how their children were using writing. When parents came to the classroom they provided assistance to a busy teacher which allowed the increased production of classroom books from the children's manuscripts, as well as additional listening time as children read to them from favorite books. Parents observed children writing for many purposes and began to understand how writing is a communicative process. In response, parents began to interact, for example with lunchbox notes for their children. Most important, the study discloses how parents can support their children and not create impossible goals by expecting them to write as adults. Often teachers believe they must correct every error on a child's piece of writing because of parents' possible reactions.

The parents of the children in this study were excited about their child's writing development and were able to understand the place of error in the total developmental picture as children were given the opportunity to write what they needed. The whole area of parent
involvement in the classroom needs to be explored and encouraged in
light of the impact these parents had on their children in this study.

Finally, the need is demonstrated for whole language programs
which provide opportunities for children to develop writing as part of
an integrated whole including listening, speaking and reading. Such
programs are not new. Allen's (1976) pioneering work with language
experience goes back into the early 1950's, when he suggested children
write their own stories and books which could be used for their early
reading experiences.

Jacobs (1965), Huck (1977) and Veatch (1968) are but a few who
have seen the importance of children learning to read and write using
the rich language found in the fine literature in children's books.
Martin (1970c) has demonstrated the use of the oral sounds of
literature as a stepping stone for beginning reading and writing.

The open classroom movement of the 1970's emphasized the respon­
sibility of children for their own writing. It documented the writing
which children created as they observed and interacted with others
(Clegg, 1972).

The list could go on! Unfortunately such programs frequently
require extra knowledge, planning and effort and are not often imple­
mented in schools. Entire states or school districts find it easier to
adopt one textbook series in hopes that it will meet their children's
needs. Yet for teachers who want to see meaningful writing in their
classrooms and understand its impact on their children's writing devel­
opment there is no other way but to design individual programs based on
their professional judgments.
Few studies have been conducted by teachers in their own classrooms. While the focus of this study has been on the development of writing within the children, the implementation of the study itself has special implications for a teacher who chooses to undertake such a project. What are the problems and benefits that emerge? How can classroom research change a teacher's perspective? Why bother? These are all perplexing questions which challenged the author of this study so I will shift to the first person and answers will be presented from my personal viewpoint.

When the study commenced in 1976, little did I realize it would be late in 1983 before I would be finished. Time has been the greatest problem that I have faced inasmuch as I did not want to leave classroom teaching. The average elementary classroom requires the teacher's attention during the day and often classroom projects need additional time during evening hours. Early in the study, I determined that the children would be my primary concern. Thus, organization and analysis of the data as well as the writing were often relegated to weekends and vacation periods, making progress slow and discouraging. It is not easy to continue writing when you have been away from the material for several weeks. Reviewing and updating takes time before new progress can be made. The length of time taken to complete this study in itself is indicative of the problems of analyzing research on weekends and
vacations. In contrast, Graves (1981), a full-time researcher with two research assistants, secretarial help and research equipment, was able to propose and implement a major study, as well as write a related book for teachers. These projects were completed in a period which began well after I started and were completed long before I am finishing.

Answers to the problems of time are not easy to find. Many school districts do not have sabbatical leave programs available. Moreover, my own sabbatical leave was used prior to the beginning of this study. No doubt the study would not have been designed had I not taken the year's time to update my own knowledge and find my curiosity about children's writing aroused. If I could change a past decision, I would now choose to use my sabbatical leave after the collection and organization of the data had been completed. This would have given me a block of time to work on the analysis and writing up of the findings. However, as this leave was already used, only one possibility was left: applying for an unpaid leave from the school district. This has not been financially practical for me, and I do not anticipate being able to do this in the future.

It is my hope that opportunities for new studies will be available for me to pursue in the coming years. I hope the value of classroom research such as I have conducted that will appreciated by the school district, as well as by others who might be able to assist with financial support.

Within the school district, exploration of shared-time positions could free a teacher-researcher from part of her teaching responsibilities and create time for the other aspects of a research
The creation of a position of teacher-researcher, where a teacher is employed by the school district in this capacity for a year's time is one solution I hope will be considered. Federal and private foundation grants could be applied for which might provide the financial means by which teachers could be temporarily freed from the responsibilities of their teaching assignments.

Time has not completely been my enemy, for as a classroom teacher who wants to remain in this position, I have also had no deadlines which needed to be met so I could move to a new position. This has meant that I have had freedom to learn as much as I could about children's writing. Seven years later, I realize I do know a lot specifically about how children write, and child language development in general. I have been able to read and assimilate the work of others in this newly emerging field of children's writing. Furthermore, I have been able to test the soundness of my observations against their conclusions as well as the reality of new children entering my classroom each year. This information has given me new insights into what is happening to children in my classroom, allowing me to question some of my practices, shift some of my priorities, and help the children as writers.

I believe I am a better teacher today than I was when I began this study. The knowledge I have gained has made me a stronger teacher. My classroom curriculum is not dictated by a person or persons who do not know the children in my care. Based on my professional judgment, I can take the best portions of programs and materials and use them to the children's benefit. I can discard materials which
are not suitable, and understand why these materials do not help the children. Most of all, my knowledge of children and how they learn has grown. I am positive that all children truly want to learn, and I am convinced there is a meaning in whatever they write to me. It is my responsibility to respect and understand these messages, and support these sometimes fragile beginnings.

As a result of this study, I find I do not have to isolate skills in an effort to correct errors as I realize and can demonstrate how language as a whole is stronger that its parts in isolation. The spelling of high-frequency words, for example, does not need to be "taught" in isolation, as I know these words are written over and over again. Children do move to using these forms conventionally when they write a meaningful message. My confidence in children grows daily as I observe new children developing writing each year.

Over the intervening years I have grown as a person. When I returned to my classroom, I realized I could not just close the door and exist in isolation. I needed to keep current with new research as I progressed on my own study as well as being aware of new curriculum materials. To meet this need, I discovered the importance of professional organizations, such as the International Reading Association and the National Council of Teachers of English. Though I had read many of their publications, it was not until I became actively involved by attending their meetings that I was able to gain full value from these organizations. As a result, I have gained information, but I have also learned to give to others. I have been invited to serve on committees, write articles and to give presentations on my emerging research. It
is sad that relatively few elementary classroom teachers are actively involved in either organization. Yet the importance of professional development cannot be underestimated. It is only when ideas are shared in such gatherings that progress is made in helping children learn.

In the intervening years since the study began, an amazing thing happened. I found I was in reality living the study from an adult perspective. When I left college as a beginning teacher, I could control the mechanics of writing, but I had little to say. As a graduate student, I frequently took true-false or multiple-choice tests, but writing was not a major concern. When I began this study, I began to learn about children's writing. The need to share this information with others caused me to write to communicate my ideas. As I began to understand more, I found I could put my ideas into writing, and as I have done this, just as the children in my classroom have learned, so have I learned to write. If I were a first grader, I could now write THE END. However, this study is for me, and I hope for other teachers, a beginning. It is my hope that each of us can begin to observe and write about what is happening in our classrooms, so that we can know what is best and right for the children in our care.
APPENDIX A

LETTER TO PARENTS WITH ATTACHMENTS
Dear Parents,

Welcome to our parent-teacher meeting. Perhaps I can anticipate some of your questions.

Thank you for all your offers of help. Many of you volunteered, and I would like to use different mothers for the various trips and parties over the year. Mrs. G and Mrs. J will be the Room Mother Chairpersons and will call or contact you to set specific dates and times.

Another way you can help in our room would be as a Room Helper. I would also like to schedule a mother each day from 11-12 to assist in the room on a regular basis. This could be on a once-a-week, or once-every two-weeks basis. Your assistance especially with listening to children read is a valuable service to the entire classroom if you can spare the time.

In addition to planned parties at holidays, we would like to celebrate your child's birthday at school. If you wish, a small treat such as candy, cupcakes, or cookies, etc., may be sent. Children with summer birthdays, or weekend birthdays may choose a substitute day.

Often parents are concerned with children being placed in combination or split-grade rooms. There are many reasons for their use—one being to keep class size similar for all children. Here at Way School, we believe a room of this type holds many advantages for your child. First graders benefit from older children and often learn without formal instruction. Second graders find a willing audience in the younger children as they share the new ideas presented to them. Often children work together in a choice period on a common interest rather than on a grade level—a setting more like that which they find in the world outside the classroom. Each child retains their grade identity in our room, while learning to look at themselves in terms of their own growing proficiency in academic areas. I, personally, find such rooms very exciting, and would even like to extend to a three-grade level in some future school year.

In the morning we have a Sharing Time. This is a short time set aside for the children to share important things or events in their lives. It is not intended to be a "gossip" period. Trips, an exciting new book, a story or poem written at home, a new toy, or a funny experience may be related—anything important to your child and of interest to others.

Many of you have asked how to help your children at home. I am attaching a list of suggestions which you may find helpful.
Many of you have heard that I am living a double role in the classroom as both your child's teacher and a researcher in the University of Arizona doctoral program. My dissertation will be about how young children write. Your help is greatly needed and appreciated. A list of ways to help is attached.

If any question arises during the school year, please feel free to call me at the school, or send a note. I will return a call as soon as possible and try to be of help. I would appreciate knowing of any events which might affect your child's school life, such as the death of a loved one, parents going on a trip, etc. I shall be looking forward to talking and working with you and your child this year!

Sincerely,

Vera Milz

Way School
642-2820
HELP FOR YOUR CHILD:

Some suggestions are:

1. Enjoy your child. They will be tired when they come home, and this is no time for formal instruction. Instead, talk about the day, and let them share their experiences. Actually, this is a valuable aid in helping your child to assimilate and evaluate new ideas and understandings.

2. Read to your child daily. Enjoy new authors. Try Bill Peet, Charlotte Zolotov, Carolyn Haywood, etc. There are many others—use your public library facilities. Talk about ideas, whether you like the story or not.

3. Enjoy reading yourself. Get in the habit of reading something out loud from a book, magazine, or newspaper. Share and discuss ideas with your family. Encourage your child to do the same. Oral reading should have a purpose, and children need to realize this even as beginning readers. Allow time for silent reading.

4. Write notes to your child—reminders to wait after school to be picked up, lists of things to remember—to help them to realize the use of writing in communication.

5. Remember your child is developing proficiency in many areas. Try to become aware of the positive growth occurring in your child instead of being error conscious. Accept your child at that level! Start looking at your child’s errors as miscues—a sign of strength and expanding of knowledge. Children who take risks are reaching out, and they are apt to make more miscues
during this period. If they become discouraged, they will stick with "safe" things already mastered rather than expanding their knowledge.
DISSERTATION ASSISTANCE:

Your help is needed to collect the writing samples from your child. Little is known about children as they develop writing, but they must have a reader to respond to their efforts. You are a central focus in their lives, and I believe they must share their writing with you. If I limit the study to writing done for me at school, I believe only a limited picture will emerge with little value. Thus, I hope you will become involved as an active participant in the following ways:

1. Date and save any writing your child brings home.

2. Date and save any spontaneous writing that occurs at home. Any background information you might have could be noted on the side. This writing should be a first-draft with as little help as possible—assistance given when the child asks.

If the child writes a letter, and you have time to stop by the school before it is mailed, I'd appreciate a copy for my files. I would, also, like to receive materials periodically, as I am developing a system of analysis for use at a later time. The study will cover Sept. 8, 1976 - May 1, 1977.

3. Fill out a confidential survey to be used only in connection with this study. I will need background information, such as parent's occupations, approximate income level of the family, geographic origin, education of parents, children in family, though this information is not a major focus of the study. This survey will be given to you at conference time.
Your child's writing will be looked at from a developmental point of view. I will not be judging it for creativity, good or bad qualities, or "cuteness." I am not interested in personal information, but only in the purpose for which the child wrote. After the data is collected, I would hope to see evidence of universals in the learning process occurring in all the children, and be able to determine similarities and differences in development. Through this study, I hope we will be able to help all children in expanding and developing their use of writing in their daily lives.
APPENDIX B

PARENT QUESTIONNAIRE
PARENT QUESTIONNAIRE

Vera Milz, Researcher
Doctoral Study, University of Arizona
Development of Writing

__________________________________________  _______________________________________
Student  Parent

FAMILY BACKGROUND

Father:
Birthplace:
Education—Highest degree earned

High School ___  Bachelor ___  Master ___  Doctorate ___
Other ___

Occupation:
Do you like to read? ______
What do you read?
Do you like to write? ______
What do you write?

Mother:
Birthplace:
Education—Highest degree earned

High School ___  Bachelor ___  Master ___  Doctorate ___
Other ___

Occupation: (If not at present, before this time)
Do you like to read? ______
What do you read?

1. Based on Durkin (1966); adapted by Milz.
Do you like to write? _____

What do you write?

**Siblings:**

<table>
<thead>
<tr>
<th>Brothers</th>
<th>Sisters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Names:</td>
<td>Names:</td>
</tr>
<tr>
<td>Ages:</td>
<td>Ages:</td>
</tr>
</tbody>
</table>

**Others in Home**

Any other adults? Children?

Relation to subject:

**Language Usage**

Languages spoken in home:

By whom?

Are there any newspapers, books, etc., other than English in home? Does child use them in any way?

**Reading and Writing in Home**

What materials are in the home to encourage interest in reading and writing?

Describe how reading/writing are used in home:

How are the children involved in reading/writing in the home?

**SUBJECT**

Birthplace:

Birthdate:
1. At what age did child begin to walk?

2. At what age did child begin to talk?
   What do you remember about early talking?

3. Did child go to nursery school?
   Where?
   Kind:
   Duration:

4. Did child attend kindergarten?
   Where:
   Describe kinds of reading/writing experiences child had in kindergarten:

5. Does child speak, read, or write any other language than English?
   Language:
   To what degree:

6. Does child watch TV?
   Frequency: _____ hrs. per week
   Kind of programs:

7. At what age did child show any interest in written words or numbers?
   How was interest shown?
   (Example: read store name)
   What things were done to encourage this interest?

8. At what age did child show interest in reading?
   What kinds of interest?
   (Example: read part of book father was reading to child)
   What things were done to encourage this interest?
9. At what age did child show interest in writing? 
   What kinds of interest?  
   (Example: used crayon to write name) 

   At what age did child write? 
   How well or what? Can you give examples: 

   What things were done to encourage interest? 

10. Has child ever commented about reading or writing? 
    Can you describe? 

2nd GRADE ONLY: 

First Grade Experiences: 

School: 

Describe kinds of reading and writing experiences child had in first grade: 

Has child commented about reading or writing during that period? 
Please describe (Example: sounding out words is hard.):
REFERENCES


Horn, Ernest. A Basic Writing Vocabulary. University of Iowa Monographs in Education, First Series, no. 4, Iowa City, 1926.


