Early Drawing and Writing: A Study of Young Children's Products, Processes, and Perceptions

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EARLY DRAWING AND WRITING:
A STUDY OF YOUNG CHILDREN'S
PRODUCTS, PROCESSES, AND PERCEPTIONS

THESIS

Submitted to the Graduate Committee of the
Department of Education and Human Development
State University of New York
College at Brockport
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Requirements for the Degree of
Master of Science in Education

by
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Abstract

This study was designed to investigate how young children perceive the processes of drawing and writing, to determine the characteristics of the drawing and writing samples and episodes, and to determine what relationships exist among the processes, products, and perceptions.

Ten nursery school children were interviewed to investigate young children's perceptions and abilities within the drawing and writing processes. The children were asked to produce one drawing and one writing sample and to respond to six interview questions. Responses to interview questions were categorized and then descriptively analyzed. Drawing and writing episodes were classified and described according to the characteristics of the episodes and the samples that were produced.

The following results emerged from the descriptive analysis. The young children in this study draw and write mainly for personal enjoyment and have a limited perspective of the other functions that drawing and writing serve. Sixty per cent said that drawing is not hard for them, whereas 30% said that writing is not hard. Analysis of the samples revealed that children preferred to use capital rather than lower-case letters. Analysis of the drawing and
writing episodes suggested that oral language plays a critical role in facilitating children's written language learning.

This study's findings yield insight into how drawing provides children with a transition to writing, as well as how children use the medias of drawing and writing interchangeably as they learn to communicate symbolically. Implications for research included conducting similar studies using larger samples of children from a variety of environments over a longer period of time and investigating the role of the teacher and the family in children's literacy learning.

Classroom recommendations included using the design of this study to develop a tool for ongoing assessment of children's writing development, helping children to become more aware of the various functions of drawing and writing through modeling, and encouraging oral communication about the child's drawing and writing.
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Chapter I

Statement of the Problem

Purpose

The purposes of this study were to investigate how young children perceive the processes of drawing and writing, to determine the characteristics of the drawing and writing samples and episodes, and to determine what relationships exist among the processes, products, and perceptions.

Questions to be Answered

1. How do young children perceive the drawing process?
2. How do young children perceive the writing process?
3. What are the characteristics of the drawing samples and episodes of young children?
4. What are the characteristics of the writing samples and episodes of young children?
5. What relationships exist among the results of questions one through four?

Need for the Study

Over the past several years, there has been an increased concern for writing education. Current trends in education emphasizing a need for writing competency have led to a growing interest in the teaching of writing accompanied by an expanding knowledge base. Major studies
on how children develop as writers are having a direct and powerful effect on classroom teaching (Calkins, 1985).

Teachers used to emphasize the final product, not the processes that produced them. Now many researchers and teachers ask, "What processes do writers use?"; "What do children do when they write?"; and "How do the behaviors of skilled and unskilled writers differ?" The focus has shifted from product to process (Calkins, 1985).

Most of the research into the writing process has been conducted with school age children. However, a recent focus has been on the development of literacy during the preschool years before the child receives formal instruction. Until recently, teachers assumed that children did not begin writing until first or second grade. But current research shows that long before they come to school, children are writing--as best they can (Calkins, 1985). A few studies (Clay, 1982; Ferreiro and Teberosky, 1979; Tolchinsky-Landsmann and Levin, 1985) have focused upon the period between the ages of 3.4 and 5.8 years, in an attempt to trace developmental regularities irrespective of children's use of conventional letters. Bissex (1980) was the first to make a longitudinal case study of a child learning to write. Writing is viewed by Bissex as one manifestation of general cognitive development. The development of writing, according to her, is part of the development of the person rather than the product of an instructional writing skills sequence.
Researchers Clay (1975) and Graves (1981) suggest that there are sequential stages in writing development, whereas others (Harste, Burke, and Woodward, 1981; Vekelich and Golden, 1984) disagree. According to Clay (1975), there are twelve principles and concepts that characterize and describe children's systematic development of the writing process. She suggests that as more of the graphic principles appear in a child's writing, the more mature he is likely to be as a writer. Graves (1981) noted that an analysis of writing episodes reveals sequences of development over time. Harste, Burke, and Woodward (1981) report a movement among a variety of stages in young writers. Since children produce a range of writing products in response to the request to write, interpretation using sequential stages is difficult (Vekelich and Golden, 1984).

Many researchers have included drawing as an important component in children's literacy development (Bissex, 1980; Calkins, 1985; Clay, 1975; Graves, 1981; Kellogg, 1969; Platt, 1977). Kellogg (1969) focused her attention on preschoolers' scribbles which she called "self-taught child art." According to Kellogg, children progress from scribbling to picture-making in stages. She also theorizes that allowing a child to draw what he likes for at least thirty minutes every day might very well help improve his reading and writing ability. Clay (1986) relates drawing and writing of young children in New Zealand. She found that when children were given blank
pages of paper and invited to draw, their first products would be drawings, but before long they would be drawing and writing. Platt (1977) states that children's drawings provide a natural introduction to reading and writing. According to Platt, children who are helped to realize that they can convert verbal images into graphic images are preparing themselves to convert graphic images into alphabetic words. Graves (1981) states that drawing is very important to the beginning writer and becomes less important as the child becomes older and a more proficient writer.

Preschool writing is a bridge to literacy, according to Read (1975). Therefore, it is essential that educators become aware of how writing skill develops in preschool children. More complete clarification of their understanding and perceptions of drawing and writing may reveal important implications for enhancing literacy development in young children.

Lucy Calkins, in her first book, Lessons from a Child (1983), recommends that teachers become researchers, observing how students go about writing and learning from them how teachers can help. Listening to children-- taking lessons from them--is essential to the teaching of writing. Graves (1981) advocates research involving a closer and longer look at children while they are writing, noticing what occurs during the writing episode. The detailed observation of children is the beginning of understanding teaching, since teacher effects are seen
more clearly in the context of child data. Much of these data comes from product analysis, child, parent, and teacher interviews, and the analysis of the writing episodes (Graves, 1981). The recommendations of Calkins (1983) and Graves (1981) to learn from the children justify this study.

**Definition of Terms**

**Drawing episode**: encompassing all that a child does before, during, and after a single drawing.

**Writing episode**: encompassing all that a child does before, during, and after a single writing.

**Limitations**

The subjects of this study were ten white middle-class children attending four different nursery schools in a rural area of Western New York State. Any application of conclusions drawn from this small-sample study is limited to a similar group. Results of only one drawing and one writing episode per subject limited the data for analysis.

**Summary**

Literacy, the ability to read and write, is highly valued in the world today. Until recently, research dealing with how people learn to write has lagged far behind research in the field of reading development. During the past several years, writing has been considered a recurring process, not merely an accumulation of skills
to be mastered in a linear fashion. Research into this highly complex process has most recently been conducted with preschool children in an attempt to understand young children's abilities and perceptions within the writing process prior to kindergarten. This study attempted to provide a deeper understanding of how the drawing process relates to the preschool child's development as a writer.
Chapter II

Review of the Literature

Purpose

The purposes of this study were to investigate how young children perceive the processes of drawing and writing, to determine the characteristics of the drawing and writing episodes and products, and to determine what relationships exist among the perceptions, processes, and products.

This chapter has divided the research relevant to this study into the following categories: natural language learning, cognitive development and language, and drawing-writing relationships.

Natural Language Learning

Language is a specific and unique body of information or knowledge that exists in the brain, a linguistic code having an arbitrary set of symbols and rules. A language system is necessary for verbal communication. The four processes of language are listening, speaking, reading, and writing.

Inquiries into the development of literacy have provided information concerning the interrelationships among the four processes of language. Harste, Woodward, and Burke, (1984) characterized literacy as multimodal involvement of alternative available expressions of language
(speaking, listening, reading, writing) and communication systems (language, art, math, music, drama, etc.) allowing language users to psychologically and sociologically shift stances and get a new perspective on their knowing. He labeled these shifts and moves "negotiation" and the process involved "triangulation."

A review of the literature suggests that oral language plays a critical role in facilitating the child's written language learning. The similarities between oral language development and written language development have been studied. Temple, Nathan, and Burris (1982) discussed functional similarities between learning to talk and learning to write and emphasized that children need opportunities to use writing meaningfully to serve different purposes in order to develop literacy.

Graves (1983) differentiates between writing and speaking, but explains that writing has its roots in speech because the human voice underlies and shows itself throughout the life of the writer. Graves (1975) studied how children in grades one through four gain control of the writing process. He observed that most young writers produce language and sound when they write, that they make a transition, a "never-ending shift" from speech to print as they work with written language. "The human voice underlies the entire writing process" (Graves, 1983, pp. 161-162).

Dyson's study (1981, 1983) of kindergarten children's
writing behaviors also provided insights into how children make the transition from speech to writing and the role oral language plays during the writing process. Dyson stated that the children's oral language served two functions: to direct their activities and to represent their experiences.

Harste et al. (1984) concluded from their observations of young writers that oral speech during writing episodes not only signaled intentionality, but acted as a plan of writing action.

Earlier, Britton (1970, 1975) stated that the writing of young children was very much like speech written down and seemed to be the mode in which they chiefly write.

Vygotsky's (1978) position suggested that young children's graphic symbols were "second-order symbols which function as designations for verbal ones....Understanding of written language is first effected through spoken language, but gradually this path is curtailed and spoken language disappears as the intermediate link" (pp.114-116).

As early as 1898, in observing the writing development of young children, Harriet Irdell, a teacher in Titusville, Pennsylvania, wrote:

As the babbling child thinks he talks, so the scribbling child thinks he writes. One is as natural to him, as universal, as much a part of his growth as the other. The power to read and write is in bud, all ready to blossom. (p. 237)

According to Cohn (1981), reading and writing can develop in the same natural way as spoken language, provided that the conditions of learning are similar. These conditions include a stimulating environment, encouragement, and a relaxed adult attitude. Holdaway (1979) describes learning in this natural way as:

...developmental learning, which is highly individual and non-competitive, short on teaching and long on learning, self-regulated rather than adult-regulated, goes hand in hand with the fulfillment of real life purposes, and emulates the behavior of people who model the skill in natural use. (p.14)

Holdaway (1979) linked talking, reading, writing, thinking, and drawing. Emergent reading and writing, like spoken language, begins with gross approximations (Clay, 1975; Holdaway, 1979). In oral language development, approximations are welcomed. In reading and writing, too often they are corrected and discouraged. Children go through a progression of stages in reading and writing as they did in oral language development. This progression must be recognized, understood, appreciated, and nurtured by parents and teachers (Cohn, 1981).

Y. Goodman (1985) shares her insights about the
principles and knowledges of the writing system that children discover, develop, and learn to control. The three principles are the functional principles, the linguistic principles, and the relational principles. Functional principles develop as children solve the problem of how writing is used and the purposes and significance that writing serves for themselves and others. Linguistic principles develop as children solve the problem of how written language is organized in order to have shared meanings in the culture. Relational principles develop as children solve the problem of what written language comes to mean. These principles develop in concert with each other as children actively participate in daily literacy events.


The research of Clay (1975) considered how children move from scribbling to producing marks which more and more closely resembled the writing seen in their environment. According to Clay, children's written language productions indicate a developmental process from nonstandard representations to conventional spelling, including scribbles, alternative scripts, pictures, random letters and
numerals, organized letter sequences, invented spelling, and conventional graphic representations other than their own name (Schrader, 1986). Clay (1975) observed and reported principles and concepts that characterize and describe children's systematic development of the writing process. They are the sign, message, and space concepts; and the copying, flexibility, inventory, recurring, generating, directional, and abbreviation principles. These are provided without reference to the order of acquisition and with recognition that children experiment with the writing system (Vukekich & Golden, 1984).

In recent years there have been several productive inquiries into the question of what children think writing is (Lavine, 1972; Temple, 1982). Lavine (1972) discovered certain distinctive features that children used to sort writing from non-writing. She found children do this on the basis of visual features of the graphic display—horizontality, variety of figures, nonpictoriality, and so on. An important difference between Lavine's work and Clay's is that Lavine's associated certain features with greater levels of maturity in writing development. Clay made no such distinction but rather suggested that as more of her early graphic principles showed up in a child's writing, the more mature he was likely to be as a writer.
These principles as they appear in young children's writing seem to be signs that the child is actively exploring the writing system (Temple, 1982).

Harste, Burke, and Woodward, (1981) suggest that there are no sequential stages in writing development. They report a movement among a variety of stages in young writers. They labeled this "renegotiation," suggesting that children move freely between various kinds of writing and drawing. Since children produce a range of writing products in response to the request to write, interpretation using sequential stages is difficult (Vukelich & Golden, 1984).

Sulzby and Teale (1985) describe young children's writing strategies as a general, but complicated developmental path, moving from lower-appearing forms like scribbling, drawing, and making letter-like forms, to using strings of letters and phonetically based invented spelling, and finally to using regular orthography.

Ferreiro and Teberosky (1982) reported that the children in their studies constructed written language for themselves, selectively using information provided by the environment. Before discovering that the writing surrounding them was alphabetic, the children worked a long time exploring other hypotheses first.

Read's (1971, 1975) study considered the ways in which preschool children wrote personal messages. He examined the highly regular developmental sequence children aged 3, 4,
and 5 follow as they invent and modify a system of phonological rules that approximate the Standard English Orthography. He noted that each of the children's writings contained spellings that were partly of their own invention, and that there were common characteristics in these "invented spellings." He found that the children were consistent in forming sound-symbol relationships based on what they heard at the point of sound articulation. According to Read (1971, 1975), "invented spelling" is a process of phonological development that all children go through.

Bissex (1980) noted from a longitudinal case study of her son Paul that he used "invented spelling" at the age of 5.1 - 5.3. His first message was "RUDF" (Are you deaf?). Graves (1983) encourages children to "invent their own spellings." Given time, he says, the natural pressures of the classroom will prompt him to "invent" his way to correct, self-reliant spelling.

According to Halliday (1980) and Harste et al. (1984), language is a sociopsycholinguistic process, not just a psycholinguistic one. "Interaction with real or supposed social others involving all of the expressions of language is an integral part of any instance of the language and the language learning process" (Harste et al., 1984, p.193). Halliday (1980) and Harste et al. (1984) argue that any instance of language provides language users with an
opportunity to learn language, learn about language, and learn through language. Learning about language involves learning about language as a system. It involves an understanding of how language is used in particular contexts as well as language about language or metalinguistic knowledge.

There have been research reports on both the home and school influences upon the learning processes for written language in young children (Bissex, 1980; DeFord, 1981; Graves, 1981; Harste & Burke, 1977, 1980; Hoffman, 1982; Hoffman & McCully, 1984; Holdaway, 1979). Collectively, this research has confirmed that this influence of home and school upon young children's written language development is a direct result of what parents and teachers believe the writing process to be and their subsequent expectations for young children's writing. This belief is evidenced in both the informal and formal teaching strategies used by adults in their interactions with children (Hoffman, 1985).

Sulzby and Teale's (1985) conclusion was that although it may be possible to observe an overall pattern of development from less sophisticated to more sophisticated writing strategies and knowledge, the process of development, as it occurs within individual children, is much more complicated.
Cognitive Development and Language

Researchers have studied the mental development of young children in relation to developing literacy.

K. Goodman (1985) states that the ability to develop and use language is a universal human quality; it is perhaps the most uniquely human quality. Two human traits that make language learning possible are the ability to think symbolically and our social nature. Halliday (1975) says learning language is learning how to mean: that is learning how to express what one means to others and to understand what they mean.

Luria (1970), a neuro-psychologist, studied the complex brain functioning in speech and writing. He analyzes the complex ability of writing language in the following way. One region of the brain is responsible for the first step of analyzing words into their individual sounds. Another separate area of the brain is responsible for the articulation of speech sounds. The next step towards writing the word is coding the sound units into the units of writing, that is, the sounds into letters. This step calls into play still another part of the brain in the visual and spatial zones. The mental process of writing a word entails a further skill which is putting the letters in the proper sequence to form the word. This involves the large area of the brain as a whole. This is the matter of expressing thoughts and ideas (Clay, 1975).
Maturationists hold that much of a child's cognitive development can be explained biologically. As children get older and bigger, they are capable of doing things they were not previously capable of doing (Harste et al., 1984). Piaget (1969, 1970, 1973) began his explorations of children's thinking from a biological viewpoint, and ended up posing a "developmental stage" theory of cognitive development which combined biology and psychology. This developmental stage theory of learning included written language learning. Although researchers have seriously questioned Piaget's theories, his contributions must not be underestimated. One of Piaget's significant contributions was the shifting of attention from product to process and the cognitive operations involved (Harste et al., 1984).

Harste et al. (1984) suggest that Piaget's approach to research fails to examine certain assumptions about language, cognition, and the relationship between the two, which they see as central to understanding literacy. Vygotsky (1962, 1978) found that thought and language transact and together become more than their individual and independent selves. Vygotsky (1978) offered an insightful view of the cognitive growth that occurs as the child comes to understand and use written language. He stated that writing development does not follow a simple, clear-cut path of conversion from one stage to the next. Instead, "it offers the most unexpected metamorphoses; that is,
transformations of particular forms of written language into others" (Vygotsky, 1978, p. 106).

One of the major contributions of cognitive psychologists has been schema theory and its demonstrated applicability to understanding psycholinguistic processes in literacy (Adams & Collins, 1978; Anderson, Reynold, Schallert & Goetz, 1977; Neisser, 1976; Rumelhart & Ortony, 1977; Smith, 1978; Spiro, 1977). Generally, schema theorists are interested in how the mind processes, stores, and retrieves input. Schema theorists postulate that the human memory system is made up of interacting knowledge structures called schema. Schema theory posits the mind as a highly complex set of cognitive structures which govern not only perception but also comprehension. Whereas earlier theories had separated perception and cognition, schema theory joined the two and in so doing moved the language user center stage (Harste et al., 1984).

There are many parallels between schema theory and the work of Piaget (Ginsburg & Opper, 1979). Both schema theorists and Piagetians believe schema are hierarchically arranged mental structures and that learning takes place through changes in them.

The position of Halliday (1974), Harste et al. (1984), and Vygotsky (1978), while not opposed to schema theory, is that they see learning as first and foremost a social event. From their perspective schema are sociocognitive phenomena
and are specific to contexts and to cultures. Harste et al. (1984) refer to patterns in children's reading and writing behaviors which seem to reflect a common set of cognitive processing decisions on the part of the language user and learner. They found that, when asked to write, young children make markings which reflect the written language of their culture. Such organizational decisions are sociologically and contextually rooted (Harste et al., 1984).

K. Goodman (1985) describes the reading process as a psychological guessing game, one in which readers construct meaning as they read. Reading and writing are single processes regardless of differences between languages and orthographies (Goodman, 1982). Learning to read is learning to make sense of print and learning to write is learning to make sense through print (Goodman, 1985).

Y. Goodman (1981) studied how children grow into literacy as defined by psycholinguistic theory. She believed that literacy must begin before schooling. She concluded from her research that literacy has multiple roots which eventually come together into productive reading and writing. She believes that children come to control three overlapping principles in becoming literate. These sets are linguistic (having to do with the language systems), functional (relating to need), and relational (relates language systems or relates print to the meaning it represents).
Children's concepts and perceptions about literacy have been studied. According to Frederiksen (1981), there is a need to study the "child's theory of writing," that is, his notion of what it means to write, and what writers are supposed to do, and the child's evolving sense of himself as a writer.

A study was conducted by Rasinski and DeFord (1985) to explore first grade students' conceptions of reading and writing, and how those conceptions may be associated with and influenced by the type of reading instruction they received. Results suggest that the type of instruction significantly and quite powerfully affects the way that first grade children perceive literacy and literacy activities.

Morris (1981) stresses the importance of "concept of word" in the beginning reading and writing process. He contends that it is in the context of a supportive, natural language print-environment that children may have the best opportunity to develop conceptual knowledge about words.

Several researchers, including Goodman and Goodman (1979), Harste et al. (1984), and Smith (1978) have assumed for some time that children attend to print before schooling begins and actively try to find meaning in print as well as in oral language.

Although the studies by Freeman and Whitesell (1985) confirmed these findings, they found that children do not
find meaning in the same ways that adults do. Children's expectations are different from what many beginning reading programs assume. For example, teachers expect short words to be the easiest for children to learn. Yet, Freeman and Whitesell's study (1985), like Ferreiro and Teberosky's (1982), shows that children believe a certain number of letters need to be present for something to be "for reading."

Ferreiro and Teberosky (cited in Smith, 1978) discuss the cognitive conflict that Piaget says occurs as children are faced with new knowledge and as they alter their perception of the world to include this knowledge. Sometimes previously ignored matters become disturbances, and children seem to mix ideas or temporarily regress as they reorganize their thinking and formulate new hypotheses. They test and experiment with old rules and new knowledge, make errors, and eventually arrive at a more successful strategy for interpreting print.

Recent research suggests many common psycholinguistic and sociolinguistic strategies used by children and adults (Atwell, 1980; Brandt, 1983; Calkins, 1983; Graves, 1983; Kucer, 1982; Seigel, 1983; Shaklin, 1982). The results of these studies suggest that the process children engage in is not a pseudo form of the "real" process; it is that process (Harste et al., 1984).

In summary, research has examined the mental
development of young children in relation to developing literacy. Cognitive theory maintains that writing is one manifestation of general cognitive development, not merely the product of an instructional skills sequence. Therefore, it is important to understand how the child learns in order to provide a home and school environment which will enhance cognitive development and literacy learning.

**Drawing-Writing Relationships**

Many researchers have studied drawing as it relates to children's literacy development (Bissex, 1980; Calkins, 1986; Clay, 1975; Graves, 1981; Winner, 1986). According to Winner (1986), the development of drawing is quite complex. He states that one- and two-year-olds are rapidly mastering the concepts that words, objects, and gestures stand for things. Some of the more recent studies of children as they scribble suggest that these early scrawls are actually experiments in representation.

K. Goodman (1985) states that in the past early experimentation or play with writing was dismissed as just scribbling, analogous to babbling, the early play with speech sounds found among babies. Recent research on oral language development has shown that babbling is much more important than it was assumed to be and that it moves toward speech sounds of the language the children hear around them.
Similarly, examination of scribbling shows it is a definite part of growing into literacy. Scribbling eventually becomes comprehensible writing.

Lavine (1972) and Hiebert (1978) first suggested that young children recognize the difference between drawing and writing. Later Harste et al. (1981) found that some three-year-old children could demonstrate their knowledge between writing and drawing by producing samples of each (Vekelich and Golden, 1984).

Harste et al. (1984) found that there was a difference in the art and writing scribbles of three-year-olds. Not only could scribble writing be differentiated from scribbles drawing, but they found that adults had little difficulty, given the linearity of writing and the global cohesiveness of art, in differentiating which was which, even when the markings had not been labeled and categorized. They noticed that some children reserved up-down strokes for writing and circular markings for art; others children did just the opposite.

Harste and Burke (1982) concluded from a study of American and Arab four-year-olds that young children's "scribbles" resembled the writing system to which they have been exposed though it did not yet contain conventional units of print (Tolchinsky-Landsmann and Levin, 1985).

Kellogg (1969) focused her attention on preschoolers' scribbles which she called "self-taught child art."
According to Kellogg, as children progress from scribbling to picture-making, they go through four distinguishable stages: the placement stage, the shape stage, the design stage, and the pictorial stage. She theorizes that allowing a child to draw what he likes for at least 30 minutes every day might very well help improve his reading and writing ability.

Myers (1983) studied drawing and storytelling of preschoolers. She found that children ages 3 to 5 years grow in their drawing skills and, as a correlate, grow in their storytelling skills. According to Myers, drawing and writing are visual records of the intellectual growth of small children.

Platt (1977) in her study of "grapho-linguistics" states that children's drawings provide a natural introduction to reading and writing. She theorizes that drawing comes naturally to the child who invests his or her drawings with meaning, which is one step in the symbolization process. Children who are helped to realize that they can convert verbal images into graphic images are preparing themselves to convert graphic images into alphabetic words.

Clay (1986) relates drawing and writing of young children in New Zealand. School beginners there are a year younger than American beginners, and they do not come to school knowing letters. Clay found that when given blank
pages and invited to draw, their first products will be
drawings. But, before long, the children are drawing and
writing. Some people have explained the drawing as the
thinking up of ideas which will later occur in sentences.
Others have seen it as an aide memoire holding the ideas in
mind while the child struggles with the message she is
writing.

Graves (1981) noted a sequence in children's general
use of drawing in relation to writing. He found that for
most children drawing precedes writing since the child needs
to see and hear meaning through drawing. Later, as children
know better what they will write, they illustrate after
writing. In time they do not need to draw at all. There
are exceptions based on intra-differences and different
functions for the drawing. Graves theorizes that drawing is
a rehearsing activity before writing.

Vygotsky (1978) maintained that gestures are the
child's first symbolic representations. He described a
child's initial scribbles as extensions of gestures rather
than pictorial representations. When children scribble,
they are not attempting to draw real objects. In fact, they
may assign different meanings to the scribble according to
changes in their thoughts and concepts (Hayes & Cherrington,
1985). Vygotsky (1978) maintained that children progress
from scribbling, to drawing objects, to representing speech.

Children who represent their own speech (the basis for
understanding written language) by a system of signs, are using second order symbols, according to Hayes and Cherrington (1985). Scribbling and drawing are first order symbols. Progress from first order to second order symbolism is indicated by the child's matching written signs (letters) to spoken utterances. Vygotsky (1978) felt that facilitating this transition should be a goal of early writing instruction.

The entire secret of teaching written language is to prepare and organize this natural transition appropriately. As soon as it is achieved, the child has mastered the principle of written language and then it remains only to perfect this method (p. 116).

Clay (1975) described the child's early written productions in terms of scribble, mock linear writing, and mock letters. She felt that early scribbling is the child's attempt to explore various writing strategies.

Bridge (1985) discussed the parallels between drawing and writing. According to her, many concepts and skills children learn when drawing are the same as those needed for writing. She suggests that teachers encourage drawing as a way for children to learn how to organize, focus, sequence, and describe on paper.

In summary, many researchers have studied the relationship between drawing and the development of writing in young children. Until recently, scribbling was viewed as meaningless markings unrelated to writing. Current research has discovered that gestures, scribbling, and drawing are
all extremely important in a child's development of written language. Through scribbling and drawing the child communicates or expresses meaning graphically. Eventually, alphabetic writing develops, and drawing becomes decreasingly important as the child learns to express himself in words. Viewed this way, scribbling and drawing are seen as very necessary components in the child's progression to literacy.

**Summary**

Literacy researchers' interest in young children's writing mushroomed in the Seventies and Eighties. Research on natural language learning provided information concerning the interrelationships among the four processes of language (listening, speaking, reading, writing). Similarities have been discovered between the productive processes of speaking and writing. Scribbling and drawing are viewed as early forms of written verbal communication. Current literacy research maintains that children follow a complex developmental path which involves cognitive development and interaction with the environment. Children apply certain strategies, techniques, and methods in learning to write, and although certain generalizations may be stated concerning writing development, the process is much more complicated as it occurs within individual children. Literacy begins long before schooling and, by the time the child enters school, he knows much more about language than
was previously thought. A review of the literature has clearly indicated the importance of learning from the children how they go about writing. Investigated in this study were young children's perceptions of the processes of drawing and writing, the characteristics of the drawing and writing episodes and products, and the relationships among the perceptions, processes, and products.
Chapter III

Design

Purpose

The purposes of this study were to investigate how young children perceive the processes of drawing and writing, to determine the characteristics of the drawing and writing episodes and products, and to determine what relationships exist among the perceptions, processes, and products.

Questions

1. How do young children perceive the drawing process?
2. How do young children perceive the writing process?
3. What are the characteristics of the drawing samples and episodes of young children?
4. What are the characteristics of the writing samples and episodes of young children?
5. What relationships exist among the results of questions one through four?

Methodology

Pilot Study

A pilot study was conducted in January 1987 for the purpose of examining and refining the procedure and interview questions developed by the researcher.
about the drawing," was changed to "During and after the drawing episode, the child will be encouraged to talk about his/her drawing."

The step in the second interview, "After the writing is completed, the child will be asked to read what he/she has written," was changed to "During and after the writing episode, the child will be encouraged to talk about his/her writing."

Elaboration questions were added to questions 1-3 for both interviews to gain more in-depth information about the subject's perceptions. A fourth question, including elaboration questions, was added to both interviews. The following are the revised interview questions:

First Interview

1. What is drawing?
   Elaboration questions:
   Do you know how to draw?
   Do you like to draw? Why?
   What is drawing?
   How do you do it?
   What do you use when you draw?

2. Why do people draw?
   Elaboration questions:
   What do you draw?
   Why do you draw that?
   What do you use when you draw?
Does Mom draw?
What does Mom draw?
Why does she draw that?
What does she use when she draws?

Does Dad draw?
What does Dad draw?
Why does he draw that?
What does he use when he draws?

Does your brother/sister draw?
What does he/she draw?
Why does he/she draw that?
What does he/she use when he/she draws?

Do the other children at nursery school draw?
What do they draw?
Why do they draw that?
What do they use when they draw?

Does your teacher draw?
What does she draw?
Why does she draw that?
What does she use when she draws?

3. What is hard about drawing?

Elaboration questions:
Is there anything hard about drawing?
Is drawing easy or hard for you?
What is hard about it?
4. How did you learn to draw?

   Elaboration questions:
   How old were you when you learned to draw?
   Did someone teach you or did you teach yourself?
   What did you draw when you first learned how to draw?

Second Interview

1. What is writing?

   Elaboration questions:
   Do you know how to write?
   Do you like to write? Why?
   What is writing?
   How do you do it?
   What do you use when you write?

2. Why do people write?

   Elaboration questions:
   What do you write?
   Why do you write that?
   What do you use when you write?
   Does Mom write?
   What does Mom write?
   Why does she write that?
   What does she use when she writes?
   Does Dad write?
   What does Dad write?
   Why does he write that?
   What does he use when he writes?
Does your brother/sister write?
What does he/she write?
Why does he/she write that?
What does he/she use when he/she writes?
Do the other children at nursery school write?
What do they write?
Why do they write that?
What do they use when they write?
Does your teacher write?
What does she write?
Why does she write that?
What does she use when she writes?

3. What is hard about writing?
Elaboration questions:
Is there anything hard about writing?
Is writing easy or hard for you?
What is hard about it?

4. How did you learn to write?
Elaboration questions:
How old were you when you learned to write?
Did someone teach you or did you teach yourself?
Who taught you?
What was the first thing you learned how to write?

Subjects
The subjects for this study were five male and five
female white middle-class children attending four different nursery schools in a rural area of Western New York State. The subjects were chosen at random in order to represent a range of abilities, personalities, and backgrounds. At the time of the study, January and February 1987, the ages of the subjects ranged from 4.4 to 4.11. Information gained from interviews with the parents provided the following information:

Homes Eight had two-parent homes; two had single-parent homes.

Location of Homes Seven lived in the country; three lived in a village.

Fathers' Occupations
Factory worker, manufacturing manager, computer analyst, truck driver, weld shop inspector, farmer, teacher, computer programmer, excavating contractor, factory supervisor.

Mothers' Occupations Factory worker, computer analyst, personnel administrator, secretary, homemaker (3), homemaker-babysitter, homemaker-barnkeeper, homemaker-farmer.

Fathers' Education High School (4), one and a half years of college (1), two years of college (4), four years of college (1).

Mothers' Education High School (4), one and a half years of college (1), two years of college (4), four years of college (1).
Instruments

Instruments used in this study were:

1. Six interview questions designed by the researcher.

2. One drawing sample and one writing sample from each subject requested by the researcher.

3. Tape recordings during interviews.

4. Forms (See Appendix).
   a) Student Data Form
   b) Parent Intake Form
   c) Teacher Intake Form

Procedure

Two similar interviews, averaging 20 minutes in length, were conducted with each child. The researcher was seated at the right of the child at a table. A 9x12 inch sheet of unlined white construction paper and a variety of felt-tipped markers, crayons, and pencils were placed in front of the child. Both interviews were tape recorded, and observations were noted on the Student Data Form. Oral communication was encouraged during and after the drawing and writing episodes. Frequent praise, approval, and encouragement were provided by the researcher, and a small token reward was given at the conclusion of each interview. Drawing and writing samples were retained for analysis.
First Interview

After a brief informal conversation, the child was asked to name the colors as the researcher pointed to the eight crayons. The purpose of this introductory activity was to put the child at ease.

The researcher then requested a drawing sample by saying, "Please draw whatever you would like to draw on this paper. You may use any of these crayons, markers, or pencils that you wish." When the child appeared to be finished drawing, the question was asked, "Would you like to draw anything else on this paper?" When drawing was completed, if the child had not already written his/her name, a request was made by saying, "Please write your name on your paper," or "Write as much of your name as you can on your paper." Praise, approval, and encouragement were given throughout the interview. During and after the drawing episode, the child was encouraged to talk about his/her drawing.

Then the child was asked to respond to the interview questions as listed in the pilot study on page 29.

The first interview concluded by the the child being thanked and praised for his/her efforts and given a small token reward.

The entire interview was tape recorded, observations were noted, and the drawing sample was retained for analysis.
Second Interview

The second interview took place the following school day with no changes in the time, setting, or materials provided.

The researcher requested a writing sample by saying, "Please write whatever you would like to write on this paper. You may use any of these crayons, markers, or pencils that you wish." When the child appeared to be finished writing, he/she was asked, "Would you like to write anything else on this paper?" When writing was completed, if the child had not already written his/her name, a request was made by saying, "Please write your name on your paper", or "Write as much of your name as you can on your paper." Praise, approval, and encouragement were given throughout the interview. During and after the writing episode, the child was encouraged to talk about his/her writing.

Then the child was asked to respond to the interview questions as listed in the pilot study on page 29.

The second interview concluded by the child being thanked and praised for his/her efforts and given a small token reward.

The entire interview was tape recorded, observations were noted, and the writing sample was retained for analysis.
Analysis

The responses to the interview questions were categorized and then descriptively analyzed. Drawing and writing episodes were classified and described according to the characteristics of the episodes and the samples that were produced.

Summary

Ten nursery school children attending four different nursery schools were interviewed to investigate young children's perceptions and abilities within the drawing and writing processes. The children were asked to produce one drawing and one writing sample and to respond to six interview questions. The responses to the interview questions were categorized and then descriptively analyzed. Drawing and writing episodes were classified and described according to the characteristics of the episodes and the samples that were produced.
Chapter IV

Analysis of Data

Purpose

The purposes of this study were to investigate how young children perceive the processes of drawing and writing, to determine the characteristics of the drawing and writing episodes and products, and to determine what relationships exist among the perceptions, processes, and products.

Part 1

Analysis of the Interview Questions

This study was an attempt by the researcher to learn from the children about their perceptions of drawing and writing. Each child's responses were limited by the questions asked by the researcher, his level of cognitive development, his oral communication ability, and his motivation to answer the questions to the best of his ability.

**Question One:** "What is drawing?", "What is writing?"

Responses to Question One for each interview were categorized among nine categories:

A - "I don't know," or no response

B - Shapes; response was "circles"

C - Pictures; responses included "Means you drawed"
a picture"

D - Coloring; responses included "You color on a piece of paper"

E - Drawing; responses included "Drawing on paper"

F - Use of Tools; responses included "On paper," or "With a pencil"

G - Making Something; response was "Make anything you want"

H - Numbers, Letters, Words, or Names; responses included "Words," or "Names"

I - Having Aesthetic Beauty; response was "Kind of pretty"

Table 1 shows the responses of each of the ten children to question one for the drawing and writing interviews. Responses were elicited by asking question one and the elaboration questions in order to elicit a more in-depth response.
Table 1
Responses of children to question one at each interview

<table>
<thead>
<tr>
<th>Name</th>
<th>Drawing</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jessica</td>
<td>I don't know.</td>
<td>Words, names, letters.</td>
</tr>
<tr>
<td>Donald</td>
<td>Drawing on paper.</td>
<td>I don't know.</td>
</tr>
<tr>
<td>Jonathan</td>
<td>Circles.</td>
<td>Markers and crayons.</td>
</tr>
<tr>
<td>Jeremy</td>
<td>I don't know.</td>
<td>I don't know.</td>
</tr>
<tr>
<td>David</td>
<td>It means you drewed a picture.</td>
<td>Means you're coloring.</td>
</tr>
<tr>
<td>Sharah</td>
<td>On paper. You hang it up so it can dry.</td>
<td>I drewed a picture.</td>
</tr>
<tr>
<td>Emily</td>
<td>Use crayons, pencils, and markers to color and draw.</td>
<td>Sometimes coloring is with crayons, or writing is with a pencil or marker.</td>
</tr>
<tr>
<td>Matthew</td>
<td>With a pencil.</td>
<td>Make anything you want ...with a marker.</td>
</tr>
<tr>
<td>Michelle</td>
<td>Kind of...pretty.</td>
<td>Letters and pictures.</td>
</tr>
<tr>
<td>Christina</td>
<td>You color on a piece of paper.</td>
<td>I don't know.</td>
</tr>
</tbody>
</table>
Table 2 shows the number of responses to question one within each category for the drawing and writing interviews. Some responses fit more than one category. For example, "It means you drewed a picture" fits categories C and E.

<table>
<thead>
<tr>
<th>Categories</th>
<th>Drawing</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>A I don't know</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>or No Response</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B Shapes</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>C Pictures</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>D Coloring</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>E Drawing</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>F Use of Tools</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>G Making Something</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>H Numbers, Letters,</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Words, or Names</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I Having Aesthetic Beauty</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 2 indicates no clear distinction between the children's perceptions of drawing and writing. There were responses for both drawing and writing within most categories.

Two responses were within category A for drawing and three for writing. A response of "I don't know" or no response may be interpreted that the child did not wish to answer, he was tired, or he was not capable of verbalizing the concept when asked.

Jonathan's response was within category B for drawing. He had drawn a purple circle upon the request to draw and so, to him at that moment, drawing was "circles." The visual product aided him in verbalizing his perception. His response for writing, "Markers and crayons," was within category F. The tools he had used and could see aided him in verbalizing his perception of writing.

Responses within categories C, D, and E were given for both drawing and writing. David's response for drawing, "It means you drew a picture" indicates a clear perception of drawing within the adult perception. However, his response for writing, "Means you're coloring," is a perception adults associate more often with drawing than with writing. This indicates that to him coloring is part of the writing process.

Children who gave responses within category F were aware of the importance of the materials needed for drawing
and writing. An attempt to distinguish when each tool was used was made by Emily who said for drawing, "Use crayons, pencils, and markers to color and draw." For writing she said, "Sometimes coloring is with crayons, or writing is with a pencil or marker."

The response, "Make whatever you want...with a marker," in category G for writing indicates that Matthew is aware of the freedom to create whatever he wishes when writing. His response for drawing, "With a pencil," indicates that he perceives that drawing is done with a pencil. "With a marker" suggests that he perceives that writing is done with a marker. An analysis of the two responses suggests that drawing and writing are not yet separate processes in Matthew's level of literacy development.

Two responses were within category H for writing, but there were none for drawing. According to Jessica, writing is "words, names, and letters" which indicates that she associates these concepts with writing. Because she responded with "I don't know" for drawing, her perceptions of drawing and writing cannot be compared. Michelle's response that writing is "letters and pictures" indicates that both are important in literacy development. There is no clear difference between drawing and writing at this point in her development.
Michelle said drawing was "kind of... pretty," a response within category I which indicates an emphasis on the visual beauty of the drawing product.

Question Two: "Why do people draw?", "Why do people write?"

The purpose of question two was to examine the functions written literacy serve. Children's responses described perceived reasons for and uses of drawing and writing. According to Y. Goodman (1985), functional principles develop as children solve the problem of how writing is used and the purposes and significance that writing serves for themselves and others. The development of the functional principles will be influenced by the values connected to writing in their everyday lives as well as the child's needs for written language.

Responses to question two for each interview were examined and organized among seven categories:

A - "I don't know," or no response

B - For fun; use language for the pleasure it brings, drawing and writing for own enjoyment

C - Creating; self-expression

D - Useful; reasons for drawing and writing that indicate a method for satisfying needs

E - To learn; for practice or training to draw or write
F - To teach others; interaction with others to teach a skill

G - Message sending; interaction with others for communication

H - Obligation; reasons that indicate drawing or writing because it is expected by others

Responses within category A may be interpreted that the child was unwilling to respond to the question, was tired, or lacked the verbal ability to orally express his perceptions.
Table 3 lists the responses to question two within category B at each interview.

Table 3

Responses within category B (For Fun) at each interview

<table>
<thead>
<tr>
<th>Drawing</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>They like to. (2)</td>
<td>They want to.</td>
</tr>
<tr>
<td>I want to.</td>
<td>I like to.</td>
</tr>
<tr>
<td>I like drawing my &quot;Y&quot;.</td>
<td>I want to.</td>
</tr>
<tr>
<td>It's fun.</td>
<td>It's fun.</td>
</tr>
<tr>
<td>They like to draw.</td>
<td>I like to write numbers and shopping carts.</td>
</tr>
<tr>
<td>I like to.</td>
<td></td>
</tr>
<tr>
<td>I like to draw bunnies.</td>
<td>I like drawing pictures.</td>
</tr>
<tr>
<td>My dad draws in Flintstone books.</td>
<td>She likes to draw.</td>
</tr>
<tr>
<td>It makes people happy about themselves. It makes me happy. It makes other people happy if they tend to draw stuff that they like.</td>
<td>My mom colors in coloring books.</td>
</tr>
</tbody>
</table>
An analysis of responses within category B suggests that these children perceive drawing and writing as pleasurable experiences. These children clearly perceive the use of drawing and writing for personal enjoyment. Similarity of responses for drawing and writing suggests that to these children drawing and writing serve similar functions. The two processes are not yet separate concepts, but intertwined in the natural path to literacy. The responses, "my dad draws in Flintstone books" and "my mom colors in coloring books" indicate that these children perceive that drawing and writing are fun for their parents also. The child is influenced by the values and modeling of the parents.

Table 4 shows responses to question two within category C at each interview.
### Table 4

Responses to question two within category C (Creating)

<table>
<thead>
<tr>
<th>Drawing</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>We draw whatever we want.</td>
<td>My brothers draw cows.</td>
</tr>
<tr>
<td>My mom and brothers draw circles.</td>
<td>Means you draw whatever you want to draw.</td>
</tr>
<tr>
<td>I like to draw hearts for Valentines Day, Christmas flowers, pictures, lines, and shapes.</td>
<td>I like to make Valentine cards for other people, and sometimes I like to color pictures and draw pictures for my mom....</td>
</tr>
<tr>
<td>My brother draws Garbage Pail Kids and monsters.</td>
<td>My sister doesn't write too much. She only did two Valentine cards.</td>
</tr>
<tr>
<td>(The boys and girls in nursery school) draw pictures.</td>
<td>I like to write numbers and shopping carts.</td>
</tr>
<tr>
<td>My teacher draws pictures.</td>
<td>My brother writes monsters.</td>
</tr>
<tr>
<td>The boys draw cars, and the girls draw houses.</td>
<td>My mom writes puppies.</td>
</tr>
<tr>
<td>My dad draws stuff when he was a little boy--pictures.</td>
<td>I like drawing pictures.</td>
</tr>
<tr>
<td>(The boys and girls in nursery school) draw mittens.</td>
<td>(The boys and girls in nursery school) write all kinds of stuff.</td>
</tr>
<tr>
<td>My teacher draws some paper, some pictures.</td>
<td></td>
</tr>
</tbody>
</table>
Responses within category C indicate that these children perceive a personal function for drawing and writing. They recognize that people have a need to create and express themselves, and that this can be accomplished through drawing and writing. Many of the responses in this category (e.g. "My mom writes puppies.") suggest that these children do not have clearly defined perceptions of drawing and writing.

Table 5 shows the responses to question two within category D (Useful) for the two interviews.
<table>
<thead>
<tr>
<th>Drawing</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>My mom draws when she goes grocery shopping.</td>
<td>My mom and dad write the numbers of horses in stalls.</td>
</tr>
<tr>
<td>My dad draws what he does for work.</td>
<td>My dad writes when he makes phone calls.</td>
</tr>
<tr>
<td></td>
<td>My mom writes coupons.</td>
</tr>
<tr>
<td></td>
<td>My mom writes posters for my party.</td>
</tr>
<tr>
<td></td>
<td>At work she (mom) writes a real lot.</td>
</tr>
<tr>
<td></td>
<td>He (dad) writes for his job.</td>
</tr>
</tbody>
</table>

Responses within category D indicate that these children perceive an instrumental function for drawing/writing. According to Halliday (1977a), the instrumental function of language is perceived when the child becomes aware that language is a means of getting things done or is a means of satisfying material needs. The strong influence of the parents in literacy development may
be implied by the responses in this category. The child's concept of why people draw and write is influenced by the actions of his parents. There were more responses for writing in this category than for drawing. This could indicate that this group of children perceived writing as being more useful or functional than drawing, or that they saw their parents model writing more often than drawing.

Table 6 shows the various responses to question two within category E at each interview.

<table>
<thead>
<tr>
<th>Drawing</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>My sister uses pencils to</td>
<td></td>
</tr>
<tr>
<td>learn her ABC's. She is</td>
<td></td>
</tr>
<tr>
<td>learning to write to 20.</td>
<td></td>
</tr>
</tbody>
</table>

The response within category E for drawing indicates that this child perceives that her two-year-old sister must practice to learn to write the alphabet and numbers. This
response was made during the drawing interview which suggests that the difference between drawing and writing is not clear at this point in her development.

Table 7 shows the various responses to question two within category F at each interview.

Table 7

Responses to question two within category F (To Teach Others)

<table>
<thead>
<tr>
<th>Drawing</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>On the Happy Meal, Mommy teaches us how to draw it.</td>
<td>They (boys and girls) write what the teacher says.</td>
</tr>
<tr>
<td>When we start to do our papers, she (teacher) has to take a crayon and color in the stuff.</td>
<td>She (Our teacher) shows us how to do the things that we have to write. She shows us how to write a dog.</td>
</tr>
</tbody>
</table>

Responses within category F indicate an interactional function of language. These children perceive the role of parents and teachers in guiding their literacy development. The interweaving of the concepts of drawing and writing is suggested by the response, "She shows us how to write a dog."
Table 8 shows the various responses to question two within category G at each interview.

**Table 8**

Responses to question two within category G (Message Sending)

<table>
<thead>
<tr>
<th>Drawing</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>(I like to draw) 'cause you can make cards for people who are sick.</td>
<td>(I like to write) 'cause it's fun, and I like to make Valentine cards for other people, and sometimes I like to color pictures and draw pictures for my mom.</td>
</tr>
<tr>
<td></td>
<td>(My teacher) writes letters and papers for my schoolbag for my mom.</td>
</tr>
</tbody>
</table>

Responses within category G indicate that these children perceive that drawing and writing can be used to send a message or to communicate with others. Teachers communicate with parents. Making cards "for people who are sick" and making "Valentines cards for other people" are activities most likely learned from parents or teachers.
These children are learning the value of doing kind acts for others. Drawing and writing are intertwined in the responses of both these girls.

Table 9 show various responses to question two within category H at each interview.

Table 9
Responses to question two within category H (Obligation)

<table>
<thead>
<tr>
<th>Drawing</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>(People draw) 'cause they're supposed to.</td>
<td>(My brother) writes a lot for school.</td>
</tr>
<tr>
<td>(People draw) 'cause they can do it.</td>
<td></td>
</tr>
<tr>
<td>My sisters draw for school.</td>
<td></td>
</tr>
</tbody>
</table>

Responses to question two within category H suggest that these children perceive that sometimes people draw or write because of obligation to others or because it is expected. They know that older children draw and write for school, and they may anticipate future expectations of formal schooling for themselves.
Question Two: "What is hard about drawing?", "What is hard about writing?"

Responses to question three at each interview were categorized among five categories:

A - Not hard

B - Hard, but no reason given

C - Formation of objects, letters, or words is hard

D - Making mistakes is hard

E - Unable to classify

Six children responded within category A for drawing. These children do not perceive drawing as a difficult process. Possible reasons might be that they have had positive guidance and reinforcement from others and, therefore, feel successful. Three children responded within category A for writing. This may be explained the same as above for drawing.

One child responded within category B for both drawing and writing. He perceives that drawing and writing are difficult for him, but he does not know why. Perhaps he feels a lack of confidence due to negative reinforcement provided by others.
Table 10 shows various responses within category C to question three at each interview.

**Table 10**

Responses to question three within category C (Formation of Objects, Letters, or Words)

<table>
<thead>
<tr>
<th>Drawing</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cow, horse (are hard).</td>
<td>(Referring to pictures on crayons) Animals are hard.</td>
</tr>
<tr>
<td>It's hard to make letters if you don't know how to.</td>
<td>I can't draw birds. It's easy to write a person, grapes, and sunshine.</td>
</tr>
</tbody>
</table>

Responses within category C reflect children's perceptions of what is difficult for them to draw or write. These responses suggest that these children may be aware of various individual abilities within the drawing and writing processes. They may perceive that their abilities will change as they grow and develop. Interweaving of the concepts of drawing and writing is indicated by the responses, "It's hard to make letters if you don't know how to." (drawing category), and "It's easy to write a person, grapes, and sunshine." (writing category).
Table 11 shows various responses to question three within category D at each interview.

Table 11
Responses to question three within category D (Making Mistakes)

<table>
<thead>
<tr>
<th>Drawing</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Referring to her drawing)</td>
<td>It's hard if you mess it up. Throw it away and get another piece. If you're tired, you go to bed with it in your hand. Sometimes you get mixed up when you're trying to make a picture.</td>
</tr>
<tr>
<td>It's hard not to ruin the grass. If you draw something messy, you can't erase it. A wrong number on a stamp would be real hard.</td>
<td></td>
</tr>
</tbody>
</table>

All responses within category D were made by the same girl. This suggests that she has awareness and concern for her mistakes, and has learned that there are ways to correct the errors, or she can begin again.
Table 12 shows responses to question three within category E at each interview.

Table 12
Responses to question three
within category E (Unable to Classify)

<table>
<thead>
<tr>
<th>Drawing</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>It's too hard for Andy (two-year-old brother).</td>
<td>(Writing is) paper, pencil.</td>
</tr>
</tbody>
</table>

The response, "It's too hard for Andy," indicates that this child is aware that drawing ability develops as the child grows older. The response, "Paper, pencil," suggests that this child does not understand that "hard" means "difficult" in this context.

Part 2
Analysis of the Drawing and Writing Samples and Episodes

The drawing and writing samples and episodes were descriptively analyzed according to the characteristics that emerged from the samples, the observations by the researcher, and what the child said during and after each episode.
At the request to draw, children produced a variety of products including the following: horse, circle, boat, house, garage, square, people, sun, rainbow, grass, doghouse, road, car, bus, and "MY."

At the request to write, children produced a variety of responses including the following: rainstorm, boy, triangle, square, TV set, rainbow, fork, plate, ladder, trees, tent, car, road, people, list of names of family members, own first name, first initial, and first and last initial, and last two letters of first name.

Each sample and each episode was analyzed to determine whether the product was within the drawing category, the writing category, or both according to the judgement of the researcher and information given orally by the child.

Table 13 shows the percentage of samples within a category at each interview.

Table 13
Percentages of samples within a category at each interview

<table>
<thead>
<tr>
<th>Interview</th>
<th>Only Drawing</th>
<th>Only Writing</th>
<th>Drawing and Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drawing</td>
<td>90</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Writing</td>
<td>40</td>
<td>10</td>
<td>50</td>
</tr>
</tbody>
</table>
These results indicate that 90% of the children produced only drawing at the request to draw, none produced only writing, and 10% produced a mixture of drawing and writing.

When requested to write, 40% of the children produced only drawing, 10% produced only writing, and 50% produced a mixture of drawing and writing.

Jessica, the oldest in this study, was the only child who produced only drawing at the request to draw and only writing at the request to write (See Examples 1a and 1b). She appears to have a clear concept of the difference between drawing and writing and is able to produce samples of each.

Christina produced elaborate drawings at both the request to draw and the request to write (See Examples 2a and 2b). At this point in her literacy development, drawing is well-developed. Perhaps the words "drawing" and "writing" have similar meanings for her. She began each sample by first drawing a road, and proceeded to complete each product in a similar fashion but with some variety in the items drawn.

Emily produced only drawing at the request to draw (See Example 3a). When requested to write, she first began to draw and, eventually, produced a mixture of drawing and writing (See Example 3b). This suggests that her drawing ability is more well-developed and she feels more confident
about drawing than writing. Also there is evidence of
interweaving of the processes of drawing and writing.
Matthew's samples displayed the same strength in drawing and
interweaving of the processes of drawing and writing as
Emily's (See Examples 4a and 4b).

At each interview, when drawing and writing were
completed, if the child had not already written his/her
name, a request was made by saying, "Please write your name
on your paper," or "Write as much of your name as you can on
your paper." All of the children except one wrote their
names in some form (See Examples).

Evidence of the directionality principle described by
Clay (1975) can be seen in the name writing samples. The
directionality principle is developing in all of these
children. This principle is more highly developed in the
writing of Jessica, Sharah, Emily, Michelle, and Christina
than in the other children. Jeremy wrote the last two
letters of his name "M Y" in the proper sequence left to
right. Donald (DJ) reversed the letters at the first
interview but not at the second interview. Matthew wrote
his letters left to right the first time and right to left
the second time, forming a mirror image of his name. The
directionality principle is least developed in David who
wrote the letters in improper sequence right to left, then
added the "a" at the right. In this small sample it appears that the directionality principle develops earlier with girls than with boys.

Capital letters rather than lower-case were used most by these children. A possible explanation of this is that capital letters are more distinctive than lower-case, retaining their identity even when they are reversed.

At the request to write, Jessica produced a list of the names of her family members (See Example 1b). Here she demonstrated the directionality principle and the inventory principle by listing names she knew how to write.

Oral communication was encouraged throughout the interviews. The children ranged from very quiet to very talkative. Most of the children were quiet initially, but became more talkative as we became involved with their work. All began to draw or write before telling me what they would produce. When asked what they were drawing or writing, some began to talk about it, some said they did not know, and some waited until finished to see what it looked like before naming it. Others preferred not to talk while drawing or writing, but when they were finished. Three were very talkative throughout both interviews. Two boys did not keep to the topic of their drawing or writing as they were talking.
The analysis of the data of this research was divided into two sections, with part one containing the interpretation of the responses to the three questions asked at each interview and part two consisting of the analysis of the drawing and writing samples and episodes.

Responses to the three questions for each interview were categorically arranged. The results revealed that children were developing concepts about the processes of drawing and writing, but found it difficult to put their perceptions into oral language when asked, "What is drawing" and "What is writing?" Twenty per cent said that they did not know what drawing is, and 30% said they did not know what writing is.

The children's perceptions of the functions of drawing and writing were limited. The personal function, including drawing or writing for enjoyment, creating, or learning how was most frequently recognized. Other functions recognized to a lesser degree were the interactional function (to teach, message sending) and the instrumental function (useful). A small number perceived that older brothers and sisters draw and write for school (obligation).

Sixty per cent of the children said that drawing is not hard, and 30% said that writing is not hard. Some things that were listed as being hard about drawing/writing were forming objects, letters, or words, and making mistakes.
Analysis of the drawing and writing samples and episodes revealed that children produced and talked about drawing and writing interchangeably indicating that separate concepts are not clearly defined at this time.

All but one of the children wrote his/her name in some form. The results showed a range of products from initials to writing the first name and last initial.

Oral communication throughout the interviews provided added information about the strategies being used and the children's perceptions about the drawing and writing processes.
Example 1a (Jessica's Drawing)
Example 1b (Jessica's Writing)
Example 2b (Christina's Writing)
Example 4a (Matthew's Drawing)
Example 4b (Matthew's Writing)
Example 5a (Front, Sharah's Drawing)
Example 5aa (Back, Sharah's Drawing)
Example 6b (Jonathan's Writing)
Example 7a (Front, Donald's Drawing)
Example 7b (Front, Donald's Writing)
Example 8a (Michelle's Drawing)
Example 9a (Jeremy’s Drawing)
Example 9b (Jeremy's Writing)
Example 10a (Front, David's Drawing)
Example 10b (David's Writing)
Chapter V
Conclusions and Implications

Purpose

The purposes of this study were to investigate how young children perceive the processes of drawing and writing, to determine the characteristics of the drawing and writing episodes and products, and to determine what relationships exist among the perceptions, processes, and products.

Conclusions

The results of this study substantiates much of the previous research into children's language learning, provides some new insights, and raises new questions to be answered.

The most important conclusion that can be formulated by this study is that four-year-old children do not have clearly defined separate concepts of drawing and writing. It must not be assumed, however, that children are confused about the concepts of drawing and writing. Instead, they are testing the principles and strategies about written language that they have come to know. Harste, Woodward, and Burke (1984) suggest that "border skirmishes," in which children waver between writing and drawing, may help children pose and resolve the problems involved in their re-invention of written language. This must be considered an
indicator of progress as children deal with the task of putting a message on paper using graphic principles. Both drawing and writing may be considered speech or thoughts communicated graphically.

Drawing is a natural part of children's progression to literacy. This study provided insight into how young children use the medias of drawing and writing interchangeably as they discover the unique structures and strategies for each. Children learn to communicate by gestures, speech, and drawing, and eventually they convey meaning through alphabetic symbols. During this developmental process, children use all the various media of self-expression.

This study verifies previous literature (Dyson, 1986; Graves, 1983; Temple, Nathan, & Burris, 1982) which suggests that oral language plays a critical role in facilitating children's written language learning. The results of this study show that most young children produce oral language as they draw and write. Talking to themselves or to another person serves to sustain cognitive involvement, to encourage more drawing and writing, and to edit and review what they have produced.

The most commonly perceived function of drawing and writing for children in this study was the personal function. The results of this study verify those of Keefer (1983) who stated, "It appears that the most commonly
perceived function of writing, and the first to evolve, is
the personal function (p. 70). This personal function may
be described as a manifestation of egocentricism in
cognitive development as described by Piaget (1969, 1970,
1973). The majority of young children in this study draw
and write for personal enjoyment.

This study concluded that young children prefer to use
capital letters rather than lower-case. These results are
consistent with those of Bissex (1980) and Torrey (1969),
but not with those of Keefer (1983) who found no consistent
pattern in the use of upper and lower-case letters. This
may be explained in part by the fact that Keefer's study was
a two-year study which included children as they progressed
through nursery school and kindergarten where they had
received some formal schooling.

The results of this study suggest that children are
very proud of their ability to write their own names in some
form. Developmentally, it appears that young children learn
to write their first name with mainly capital letters and
then progress to writing the names of others. This
progression suggests that children are eager and willing to
write what is meaningful to them.

Implications for Research

The past decade has provided a wealth of research on
literacy development in early childhood. This research substantiated many of these findings, but also raises new questions for future research.

More research needs to be done concerning young children's perceptions about writing. Do they know that print in books is writing? Do they know that writing can be used to tell a story? Do they know why they must learn to write? Do they know the relationships between reading and writing? An investigation into young children's perceptions about these questions could be conducted using a series of questions and tasks in order to illicit material for analysis.

This study could be duplicated using larger samples of children from a variety of environments. Results of a study of inner city or rural Appalachia children, for example, might be very different from the results of this study.

A longitudinal study could be conducted over a period of two or three years to investigate how children's drawing and writing perceptions and products change as they develop. Such a study would reveal whether children continue to draw and write mainly for their personal enjoyment or if that function declines in importance as they progress in school. This would suggest important implications for teaching.

There is a need for further research into the role of the teacher and the family in children's literacy learning. Results of interviews with teachers and parents of the
subjects in this study suggest a strong correlation between the attitudes and strategies of teachers and parents and children's literacy development. According to this study, the mother is the strongest influence during the preschool years. Studies to determine the influence of the teacher and the school could be conducted in various nursery schools.

Implications for Classroom Practice

This study and much of the research of the past decade has provided a wealth of information about the earliest stages of reading and writing, but comparatively little has been said about effective ways to assess this early literacy development. It is known that literacy learning begins long before children come to school, but our ability to assess initial literacy levels has been limited.

Recent literature indicates that effective assessment of young children's literacy development can never be done by a single instrument. The design of this study suggests an alternative to a single standardized test for assessing children's writing development in early childhood programs by asking questions, observing behaviors, and sampling performance. This assessment could be ongoing, and cumulative records could be kept concerning the child's development. Results would provide information about the child's strategies, strengths and weaknesses, interests, and
perceptions. The results would aid the teacher in designing the most appropriate instruction. Subsequently, the cumulative records could be passed on to the kindergarten teacher who could continue the same type of assessment.

Young children have limited perceptions of the functions of drawing and writing. Therefore, it is necessary for teachers to provide a model which reflects the various functions that drawing and writing serve. For example, the teacher should write messages on the chalkboard, write creative stories, draw pictures of her house, and write thank-you notes. The children should in turn have the opportunity to draw and write for a variety of purposes.

The children in this study reacted positively to encouragement, acceptance, and praise throughout the drawing and writing episodes. Likewise, if teachers and parents provided similar positive reinforcement, children's literacy learning would be enhanced.

Children should be allowed and encouraged to talk aloud about their drawing and writing. This and other studies show that oral language serves an important role during the writing process.

The children in this study preferred to use crayons and felt-tipped markers when drawing and writing. Pencils were
the least preferred. Allowing children to choose their own tools for drawing and writing may enhance their interest in drawing and writing in the early years.

Summary

This study's findings yield insight into how drawing provides children with a transition to writing. Further research is needed to understand what is involved in the drawing-writing transition in order for parents and educators to give the optimum support and guidance as children develop different aspects of the complex symbol-producing process.
References
References


APPENDIX

Forms Used to Record Information
STUDENT DATA FORM (Drawing)

Name: ____________________________________________ Age: ____________
Sex: M F Birthdate: ______________
Nursery School: _______________________________________________________
Session: _____________________________________________________________
Researcher: __________________________________________________________
Session I - Drawing Date: ______________
Time Beginning: ________ Time Ending: ________
Total Time: ______________ Drawing Time: ______________
Hand Used: R L
Materials Used: Number in order.
____ Thick Pencil
____ Thin Pencil
Thick Crayons
____ Blue
____ Black
____ Brown
____ Purple
____ Yellow
____ Orange
____ Red
____ Green
Thin Felt-tipped Markers
____ Blue
____ Black
____ Brown
____ Purple
____ Yellow
____ Orange
____ Red
____ Green

Observations, Comments, Behavior: Continue on reverse side.
STUDENT DATA FORM (Writing)

Name: ____________________________________________  Age: __________________

Sex: M F  Birthdate: ______________

Nursery School: ______________________________________________________

Session: _________________________________________

Researcher: _______________________________________

Session II - Writing  Date: ______________

Time Beginning: ________  Time Ending: ________

Total Time: ______________  Writing Time: ______________

Hand Used: R L

Materials Used:  Number in order.

_____ Thick Pencil

_____ Thin Pencil

Thick Crayons

_____ Blue

_____ Black

_____ Brown

_____ Purple

_____ Yellow

_____ Orange

_____ Red

_____ Green

Thin Felt-tipped Markers

_____ Blue

_____ Black

_____ Brown

_____ Purple

_____ Yellow

_____ Orange

_____ Red

_____ Green

Observations, Comments, Behavior:  Continue on reverse side.
PARENT INTAKE FORM

Name of Child: __________________________________________________________

Researcher: ____________________________________ Date: ________________

Type of Home: Two-parent  Single-parent

Location of Home: Urban  Suburban  Small Town  Rural

Father's Occupation: ____________________________________________________

Father's Education: ____________________________________________________

Mother's Occupation: __________________________________________________

Mother's Education: ____________________________________________________

Does the child draw and/or write at home?

Tell me about what he/she does?

What materials are used?

How are other family members involved?
TEACHER INTAKE FORM

Child's Name: ___________________________ Birthdate: __________
Address: ________________________________ Phone: ___________
                                          ________________________________
Father's Name: __________________________
Mother's Name: __________________________
Teacher's Name: _________________________
Nursery School: _________________________ Session: ___________
School Address: _________________________
                                          ________________________________
Researcher: _____________________________ Date: __________

After parental permission, when can we schedule the two student interviews?

Session I: Date: _______________________ Time: _____________________
Session II: Date: ______________________ Time: _____________________

Where may I conduct the interviews?

What is done in the areas of drawing and writing in this child's class?