The Reconstruction of a Writing Activity Revealing the Individual Voice of African American Paraprofessionals

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LOYOLA UNIVERSITY OF CHICAGO

THE RECONSTRUCTION OF A WRITING ACTIVITY REVEALING THE
INDIVIDUAL VOICE OF AFRICAN AMERICAN PARAPROFESSIONALS

A DISSERTATION SUBMITTED TO
THE FACULTY OF THE ERIKSON INSTITUTE
IN CANDIDACY FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

BY
DALE PHILLIPS LIPSCHULTZ

CHICAGO, ILLINOIS
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CHAPTER 1
INTRODUCTION

This dissertation explores the social and cultural roots of adult writing development. It describes how individuals built their own understanding of a new writing task, as well as finding a unique and particular way of expressing themselves in this new communicative context. The study focuses on how individuals' unique voice for expressing themselves in writing emerged from a distinctly social process.

The study took place in the Chicago site of the Velham Project, an international research project with sites in the United States and Russian (the former Soviet Union). In the Velham Project, computer telecommunications was utilized to create a network of after-school computer clubs where joint activities became possible among school-aged children, undergraduate and graduate students in education and psychology, and researchers (Laboratory of Comparative Human Cognition Quarterly, July 1989). The computer club programs were created in both countries as a setting for empirical studies on a variety of aspects of learning including literacy development based on principles from the theory of L. S. Vygotsky (1978). The central idea at work in these settings was the hypothesis that intellectual skills and knowledge develop in social relationships involving activities in which children and adults are motivated to participate.

In the Velham Project, computer club activities took place in the Fifth Dimension -- an imaginary realm of play, learning, and communications where children's and adults' activities were regulated by written communications from a Wizard, a fantasy figure who existed in the telecommunications system. At most sites
in the Velham Project, researchers and university students created the context of the Fifth Dimension, facilitated the children's computer club activities, and wrote letters as the Wizard. These adults adopted the Wizard's voice and established written dialogues with the children in computer club in an effort to personalize the children's experiences with the computer hardware and software programs, as well as with the social organization within their immediate Fifth Dimension site.

The children's dialogues with their local Wizard had the potential to motivate them to write. While writing to the Wizard, the children could explore real or pretend relationships, acquire new information, and share their thoughts and ideas with dependable and responsive writing partners. In the context of this writing activity, the children could practice and expand their skills and knowledge of writing, as well as their reasons for writing.

Throughout the Velham Project, Fifth Dimension computer clubs identified the Wizard as a writing partner with local knowledge and global connections. The adults responsible for coordinating Fifth Dimension computer clubs initiated and facilitated inter-site communications between the children and the Wizard. At this level, Wizard writing introduced children and staff at one Velham site to children and staff working at other geographically distant and culturally diverse Fifth Dimension sites. These inter-site communications between children and staff cultivated collaboration on computer club projects. Thus, the Wizard writing component of computer club represented a potentially powerful and productive arrangement of relationships with the tools of written language, one which could promote children's literacy development.

The Chicago site of the Velham Project was located in a community center providing after-school activities for children living in an African American inner city housing project. The project emerged from a long-term partnership between Erikson Institute and the community center which explored ways to help children from this community improve their oral and written communication skills. When the opportunity
arose for this center to join the Velham Project and establish a Fifth Dimension computer club site in their community, the staff welcomed the opportunity. Their participation in the Velham Project presented a chance to introduce the children to computer technology, an opportunity to provide the children with challenging and motivating reasons to read and write, and thus, opportunities to improve their literacy skills.

The Chicago site of the Velham Project and Fifth Dimension computer club was an attempt to demonstrate a university-community collaboration that would provide education, training, and support directly to community center staff. The Chicago site was unique in that the day-to-day operations would be run by the staff from the community center, rather than researchers and graduate students from its university/research partner, the Erikson Institute. The collaboration was designed to provide the community center with support so that they, not Erikson Institute literacy staff, could adapt the Velham Project, including the structure of the Fifth Dimension and the role to the Wizard, to fit their local circumstances, implement their site-specific ideas, and be responsible for sustaining the program in the long run. This reflected the agreement that Erikson Institute and the community center made in all projects they undertook together. The community center staff wanted expertise to be brought into their community and made a part of their community's knowledge and understanding so that the expertise would not leave the community when the research intervention was over.

Given this arrangement, the staff of the after-school program, known as group workers, became the adults in the community identified to receive training in establishing and running the Fifth Dimension computer club. There were four group workers; they were African American, high school educated women who were also residents of the community. They were comfortable with writing and used writing for administrative purposes at work, for personal reasons at home, and in the context of
their community-related activities. Prior to this project, however, none of the women had had experience with computers, nor had they participated in written conversations with children.

During the first year of the project, Erikson Institute literacy staff helped the group workers learn about the organization of computer club through structured training sessions and in apprenticeship relationships. Initially, the group workers were introduced to the ways that other Velham sites structured the Fifth Dimension, including the children's computer club games and activities, inter-site communications via the telecommunications system, and writing to the Wizard. Within a year, the group workers were facilitating the children's daily computer-related activities. In addition, they were using the telecommunications system to correspond with staff facilitating other Fifth Dimension sites and researchers at the universities coordinating these activities. However, at the end of Year 1, the group workers were not yet writing as the Wizard with the children in their computer club program. This concerned the Erikson Institute literacy staff. If the group workers did not take up responsibility for Wizard writing, the potential of computer club and the Fifth Dimension as an activity setting to support children's literacy development would be seriously compromised.

During discussions with the group workers, the Erikson Institute literacy staff came to realize that learning to write as the Wizard was much more complex than learning the other aspects of the computer club program and it would require a special kind of learning situation. Modeling Wizard writing for the group workers and giving them opportunities to observe staff at other sites writing Wizard letters was not sufficient to launch them into beginning and maintaining dialogues with children in their computer club groups. In order to learn to write Wizard letters, the group workers needed the kind of support that would help them develop their own voice as the Wizard; that is, they need support in finding their own way of speaking and engaging
their children in this specialized kind of relationship where all the communications transpired in writing.

The Erikson Institute literacy staff introduced twelve weeks of tutorials for the group workers on Wizard writing. During the tutorials, each group worker, with the help and support of a tutor, wrote Wizard letters to the children they worked with in their computer club group. This dissertation documents and analyzes the process by which the four group workers learned to write as the Wizard. The study focuses on how each group worker began to take ownership of the knowledge and skills offered in the tutorials in unique ways, and in doing so, transformed the Wizard writing task into an activity that reflected her own way of representing the fantasy figure and her own reasons for writing as the Wizard.

When this study began, three questions guided the research. First, could the group workers learn to write Wizard letters that resembled those written by other adults in the Velham Project? Second, what kind of help and support would the group workers need while learning to write as the Wizard? Third, how would the group workers adapt the model for Wizard writing to fit their own values and beliefs, thereby reconstructing the writing activity in culturally relevant ways and developing their own personal voice as the Wizard?

The process of reconstruction became the central focus of this study. It involved analyzing how each group worker participated in Wizard writing with, and alongside, a more experienced tutor. This study examines how the group workers responded to, and were attracted by, particular facets of the task that were salient and interesting to them; how they responded to various forms of help offered as they worked toward creating a Wizard voice that fit them personally; and how they related the Wizard writing task to other, more familiar, routines, interactions and activities within their families and community. During the tutorials, these factors affected the
group workers as they worked to establish a voice in Wizard letters that had meaning and purpose consonant with the other aspects of their relationships with the children.

This study offers a unique perspective on the social and cultural roots of adult writing development as it highlights the strengths and strategies that the adult learner brings to such a situation. Reconstruction means that initially the task is completed as a joint achievement; it reflects a blending of expertise, goals, and cultural perspectives by both the tutor and the novice. From the very beginning of the process, the group workers' Wizard letters were "constructed" with the tutor. The nature of this interaction encouraged the novice to bring her skill, insights about the children and the Wizard writing activity, and creativity to the task. Over time, the tutor's involvement dropped to the background, while the features of the task that had meaning and importance to the group worker, especially the words, images, and phrasings that each woman regularly used to give expression to her sense of self as the Wizard, became evident. Tracking the process of how the group workers arrived at their "reconstruction" of the Wizard writing activity is the subject of this dissertation.
CHAPTER 2
REVIEW OF THE LITERATURE

This dissertation describes the ways that four African American women reconstructed a writing activity and the social processes and cultural factors that influenced the way each woman came to express herself in this writing activity. The theoretical rationale for examining an adult's reconstruction of an activity as a function of social processes is rooted in L. S. Vygotsky's theory of development (Vygotsky, 1978; Wertsch, 1985).

This chapter begins with a review of the theoretical and empirical literature on Vygotskian theory that supports the hypothesis that the process of reconstruction is a creative endeavor that has its roots in social interactions with peers and more experienced mentors. The review then turns to literature that addresses Vygotskian theory as it applies to literacy development in order to identify and anchor what is known about literacy learning as a creative undertaking, one that is shaped and nurtured by a person's relationships within the social contexts of writing and reading. Thirdly, this review addresses literacy development in African American communities to identify what is unique and particular about literacy learning and literacy practices for members of this cultural group.

Theoretical Rationale for Reconstruction

The theoretical rationale for examining reconstruction of an activity from the social processes surrounding and facilitating the carrying out of an activity as exemplified in this study comes from the work of Vygotsky. Vygotsky (Wertsch,
1985) formulated the genetic law of cultural development in an effort to formalize the inherent relationship between social interactions and the development of higher mental functions. He regarded individual development as occurring during joint problem solving with people who are more skilled in the use of cultural tools. The genetic law of cultural development states that, "any function in the child's cultural development appears twice...First, it appears on the social plane, and then on the psychological plane" (p. 60). Initially, development takes place on the social, or external plane, between the novice and the expert. Development on the psychological, or internal plane, occurs as the novice internalizes and reconstructs portions of the interaction and the activity from the external plane. Of particular interest to Vygotsky, his colleagues, and many of his interpreters (Wertsch, 1985) are the processes by which a novice changes a shared social interaction into an individual higher mental function.

Vygotsky's (1978) concept of the zone of proximal development operationalizes the genetic law of cultural development by describing the relationship between learning and development. The zone of proximal development is "the distance between the actual developmental level as determined by independent problem solving, and the level of potential development as determined through problem solving under adult guidance or in collaboration with more competent peers" (p.86). According to Vygotsky, the give and take between a novice and a more capable peer creates a zone of proximal development; it "awakens a variety of internal developmental processes that are able to operate only when the child is interacting with people in his environment and in cooperation with his peers" (p.90).

A novice's interactions with experts and more competent others are essential to learning and the formation of a zone of proximal development. Children must be allowed to participate in an activity in which the crucial learning events are relatively dense long before they can deal with such an activity on their own. Not only are they thus exposed to
developmentally relevant events, but this exposure is modulated to provide each child with what he or she needs to learn more about the principles guiding those events (Laboratory of Comparative Human Cognition [LCHC], 1981, p.703).

The expert plays a critical role in the formation of a zone of proximal development and the novice's learning in this context. The expert organizes the novice's environment by modeling the uses and purposes of the activity during routine events and interactions, by providing access to tools, materials, and instruments, by arranging opportunities for participation in the activity with varying degrees of difficulty, and by providing the novice with support and guidance during participation. All of these factors contribute to the novice's ability to recognize, practice, and eventually master the skills needed to complete the task independently (Cole, 1978; LCHC, 1981; Rogoff and Wertsch, 1985; Wertsch, 1985).

According to Vygotsky (1978), a novice's capacity to play also contributes to the formation of a zone of proximal development. A novice's pretend play, alone or with others, propels her into imaginary situations that allow her to reach beyond her current level of development. During play, a novice rehearses future roles by pretending to be a parent, teacher, or doctor and trying out the words and actions associated with these roles. In play, a novice projects herself into adult activities as she pretends to read a book or write a letter. The novice's greatest achievements are possible during pretend play and represent her future achievements.

As the novice shares activities with experts and more competent peers in a zone of proximal development, the novice plays with the tools, uses, forms, and roles that accompany the task, and gradually assumes control of the processes that others used while guiding and assisting her participation in the activity. The novice's control of, and responsibility for, the previously shared processes and activities marks a shift from
the social plane where interactions and activities are shared, to the novice's internal plane of independent cognitive functioning (Cole, 1985; Wertsch, 1985).

Vygotsky's (1978) theory of development has broad implications for examining reconstruction as a function of social processes. This theoretical perspective provides a framework for examining the inherent relationship between social interactions and the novice's development of higher mental functions. Vygotsky identified the zone of proximal development as the "dynamic region of sensitivity in which the transformation from interpsychological to intrapsychological functioning can be made" (Wertsch, 1985, p. 67). The aspect of Vygotsky's theory of development that is of particular relevance to this study is the novice's ability to recognize and take from more experienced others skills, strategies, and a sense of the activity as a whole, while integrating portions of the interaction into his or her current functioning with a sense of play and creativity that brings personal ownership to these newly developed psychological process.

Interactions in a Zone of Proximal Development: Empirical Studies

The following research studies describe the social processes operating in a zone of proximal development that contribute to the novice's being able to benefit from, and make use of, help offered in social interactions, the interpsychological plane of development. The studies examine some of the strategies that have been used to guide a novice's participation in a new activity, and the ways that the nature and quality of different means and sources of assistance affect a novice's ability to assume control of the strategies in becoming more independent.

Wood, Bruner, and Ross (1976) defined the role of the tutor in the tutorial process when they examined "the means whereby an adult or 'expert' helps someone who is less adult or less expert" (p. 89). The authors studied the tutorial process during a task in which a tutor seeks to teach three, four, or five-year-old children to
build a three-dimensional structure, a task that requires a degree of skill that is initially beyond the child's ability. This seminal study introduces the concept of "scaffolding" as a theory of instruction that operationalizes the role of the expert in Vygotsky's zone of proximal development. "Scaffolding is the process that enables a novice to solve a problem, carry out a task or achieve a goal which would be beyond his unassisted efforts" (p. 90). During an interaction, an expert scaffolds an activity by simplifying the novice's role in the task and "controlling those elements of the task that are initially beyond the learner's capacity, thus permitting him to concentrate upon and complete only those elements that are within his range of competence" (p. 90).

In this study, the functions of the tutor that were observed included:

1. Enlisting the novice's interest in and adherence to the requirements of the task.

2. Reducing the amount of responsibility the novice holds for carrying out a task so that the learner can perfect the components and sub-routines that he can manage.

3. Keeping the novice in pursuit of a particular objective.

4. Marking or accentuating the relevant features of the task.

5. Managing portions of the task that are beyond the novice's independent ability. This strategy reduces the novice's level of frustration.

6. Demonstrating or modeling solutions to the task. This strategy may involve completing the task partially executed by the novice (Wood, Bruner, and Ross, 1976, p. 76).

The work of Wood, Bruner, and Ross (1976) has important implications for this study in that it defines the role of a tutor in a novice's zone of proximal development, and it operationalizes the process of giving help that Vygotsky had in mind during interactions between experts and novices in a zone of proximal development. In the social interaction between an expert and novice working on the task, the expert scaffolds the novice's participation in an activity by providing assistance
that is contingent on the novice's comprehension of the task and the novice's openness and receptivity to the tutor's help during the task. The novice's eventual ability to complete the task independently indicates that she has assumed control of the strategies and means of assistance that the expert initially used to help her participate in the task. The novice's ability to function more independently signals her capacity to now guide and direct her own thinking and problem solving, as well as her mastery of specific skills necessary to complete the task. Thus, the novice benefits from scaffolding in that she learns the skills necessary to the task and she learns how to orchestrate her actions and thinking. The novice becomes a sort of "task manager" for herself, instead of relying on someone else to keep track of the order and sequence of task's subroutines and steps. This is relevant to the current study in that the goal of the tutorials was to help the novices learn both the component skills in the Wizard writing task and the strategies that would help them initiate and sustain the Wizard writing activity over time by themselves.

McLane (1987) also examined the role of the tutor in the scaffolding process by contrasting the modes of interactions in two different groups of dyads assembling a puzzle to correspond with a model. The author expanded our understanding of the scaffolding process by recognizing that a zone of proximal development is not established during every expert-novice interaction: the zone of proximal development is not in the child "waiting to be triggered by a more competent member of the culture, but...must be negotiated by the child and the more capable person in a particular context" (p. 268). In the dyads she studied, the novices were 3 1/2-year-old children, while the tutors were either the child's mother or a 5 1/2-year-old child. In both cases, the tutors were instructed to help the tutee "put together the copy so that it 'looked just like the model puzzle with all the same colors in all the same places' " (p.270). The tutors were also instructed to provide assistance whenever they thought help was needed.
McLane (1987) found that the assistance offered by peer tutors "did not enable tutees to build gradual control and understanding of the task" (p. 283). The 5 1/2-year-old children assisted the younger children by physically carrying out the steps of the task, although they allowed the tutees to select the puzzle pieces and place them in the appropriate section. This kind of assistance did not allow the younger children to participate in the task, other than as an observer, nor did it help them attend to the relationship between these task-related behaviors and the overall goal of copying a model.

In contrast, the mothers encouraged their children to "take as much responsibility for carrying out the task as they could manage, so that the only step the mothers carried out was that of monitoring the model" (McLane, 1987, p. 275). During the activity, the mothers help "met their tutee's immediate needs for assistance, while at the same time it provided 'instruction' in overall task strategy" (p. 275). The study suggests that the ease or difficulty with which a novice masters a task may be related to the "nature and quality of assistance or tutoring", including the way in which a task is presented, demonstrated, and explained by a tutor (p. 283).

The previous studies examined the strategies and interactions used to support children's learning in a zone of proximal development. Tharp and Gallimore (1988) observed that the identical process can be seen operating in the learning adult and defined teaching in more general terms in order to include novices at different developmental levels. Teaching is "the assisted performance of apprentices in joint activity with experts" and "can be said to occur when assistance is offered at points in the ZPD at which performance requires assistance" (p. 8). The authors developed a triadic model of assisted performance to illustrate the roles of experts and novices in the educational system. In a triadic model of assisted performance, "teachers must have their performance assisted if they are to acquire the ability to assist the performance of their students" (p. 43).
In this model (Tharp and Gallimore, 1988), an expert teacher assists a novice teacher's performance in a zone of proximal development. The novice teacher is offered instructions preceding the task, verbal and nonverbal guidance during the activity, feedback following her performance of the task, and opportunities to observe the activities and interactions of more competent peers throughout the task. The authors note that during these interactions in a zone of proximal development, the means of assistance are observed in continuous operation; sometimes the means of assistance are intertwined, while at other times they occurred in combination or simultaneously.

Of particular importance is the hypothesis that each way of assisting performance has a unique function in adult-adult interactions in a zone of proximal development. Tharp and Gallimore (1988) identified six means of assisting a learner's performance.

1. Modeling: a tutor demonstrates a strategy for a novice during a social interaction.

2. Contingency Management: a tutor assists a novice's performance by offering praise and encouragement. This kind of assistance strengthens each point of the novice's advance though a zone of proximal development.

3. Feeding-back: a tutor offers information that helps a novice compare her performance to a standard.

4. Instructing: a tutor assumes responsibility for assisting performance. The goal of instruction in a zone of proximal development is for the instructing voice of the tutor to become the self-instructing voice of the novice. This transfer takes place as a novice gradually assumes control of the strategies previously used by a tutor to assist her participation in the activity.

5. Questioning: a tutor uses questioning as a means of assisting a novice's performance in order to produce a mental operation that the novice could not or would not produce alone.

6. Cognitive Structuring: a tutor assists a novice's performance by providing her with a framework for the activity that includes a way of thinking about and participating in the whole task (chap. 3).
Several key points in the authors' (Tharp and Gallimore, 1988) work are significant to the design of this study. First, the authors found that the processes Vygotsky (1978) identified as operating during adult-child interactions in a zone of proximal development also operate when both the novice and the expert are adults. Second, the authors identified the ways in which an expert assists a learner's performance in a zone of proximal development. In particular, they detailed the effects of linguistic and nonlinguistic means of assistance, and demonstrated that these means of assistance can be observed in continuous operation, simultaneously and in combination. They illustrated the complexity of defining the exact kind of help that is operating between adults at a particular point in time. These findings become important in the Wizard writing tutorials in the study being discussed here, and in the analysis of the data. Tharp and Gallimore's (1988) means of assistance could be identified in an interaction, but could not be separated out from one another as discrete autonomous moves on the part of the tutor. On the contrary, these forms of assistance took shape as a fluid sequence of moves made in response to the needs of the novice at any one point in the Wizard writing task.

Rogoff (1990) described the role of the expert and novice in apprenticeship relationships in everyday settings in different cultural contexts. Rogoff developed this model to build on Vygotsky's (1978) theory of cognitive development in a zone of proximal development. "Central to Vygotsky's theory is the idea that children's participation in cultural activities with the guidance of more skilled partners allows children to internalize the tools for thinking and for taking more mature approaches to problem solving that children have practiced in the social context" (Rogoff, 1990, p. 14). While Rogoff's work focused on the cognitive development of infants and young children, she emphasized that cognitive development proceeds throughout the life span, with "individuals' ways of thinking reorganizing with successive advances in reaching and contributing to the understanding, skills, and perspectives of the community"
Throughout life, adults face challenges and opportunities at home, on the job, and in the community that require this kind of reorganization of thinking.

Rogoff (1990) described cognitive development as an apprenticeship that "occurs through guided participation in a social activity with companions who support and stretch children's understanding of skill in using tools of the culture...From guided participation involving shared understanding and problem solving, children appropriate an increasingly advanced understanding of and skill in managing the problems of their community" (pp.vii, 8). The concept of guided participation emphasizes:

1. The active role of the novice as a participant in her own development.

2. A broader view of communication which includes the importance of words, as well as actions. Guided participation emphasizes the importance of cognitive, social, and emotional interchanges between the novice and the tutor.

3. Cultural variations in lessons and the ways in which the novice learns these lessons during a shared activity in the social context (pp. 8-12).

The fourth element of guided participation is of particular importance for this study. This element describes the ways in which the novice transforms the activities and interactions shared with a tutor and how the novice adapts and changes the activity for her own uses and purposes. According to Rogoff (1990), "to act and communicate, individuals are constantly involved in exchanges that blend 'internal' and 'external'...The 'boundaries' between people who are in communication are already permeated; it is impossible to say...'whose' a collaborative idea is" (p. 195).

Since guided participation keeps the individual, interpersonal, and cultural processes simultaneously in focus, the novice's transformation of the activity is, itself, viewed as a process that blends her understanding of, and involvement in, the activity with that of other members of her community and cultural group. From this perspective, "the process of internalization is not the transferal of an external activity to a preexisting,
internal 'plane of consciousness'; it is the process in which this internal plane is formed" (p. 197).

The formation of a new internal plane of consciousness is a gradual, creative process that takes place as a novice participates in shared activities and conversational exchanges that are guided by others. Since the novice is part of a "community of thinkers" she has the opportunity to observe and experience new alternatives and ideas that she would not have encountered if she were acting independently. While participating in the shared activity, the novice selects interesting portions of the interaction for further investigation, a process that Rogoff (1990, 1993) called "appropriation". As the novice appropriates some portions of the shared activity for further investigation, including the verbal and nonverbal forms of communication, she blends the appropriated portions with her skills and ideas, as well as the values of the community. From this perspective, the social activity serves not as a template for individual participation but as a stepping stone, guiding the path taken but not determining it. For as individuals participate in a social activity, they choose some aspects for attention, ignore others, and they transform what is available to fit their uses...the processes of guided participation depend on the structure provided by the social activity and on its appropriation by the individual (1990, p. 197).

The process of guided participation (Rogoff, 1990), particularly the way a novice reconstructs the shared activity, has implications for the outcome of this study. During guided participation the tacit and explicit guidance offered by the tutor, the verbal and nonverbal communications exchanged between them, and the novice's participation in the activity alongside the tutor blurs the boundaries that usually separate their skills, thoughts, and ideas. As a result, the way that a novice reconstructs the activity to serve her own uses, purposes, and cultural values is deeply
embedded in the exchanges and interactions between a novice and tutor. Therefore, it is often difficult to determine precisely how and when the novice reconstructs the shared activity.

Rogoff's (1990) theory of cognitive development as reconstruction has broad implications for this study. The concept of guided participation expands the scope of a zone of proximal development and provides a framework for describing and analyzing the social processes that contribute to a novice's reconstruction of an activity. Guided participation identifies appropriation and blending as important aspects of a novice's reconstruction of an activity, thereby specifying the "processes of transfer of 'external' activity to the 'internal' plane" (p. 194). A novice's appropriation of portions of the shared activity, and her ability to blend the shared activity with her own perspective, highlights the creative aspects of a novice's reconstruction of an activity, and emphasizes the influence that a novice's community and her cultural orientation has on reconstruction.

The next section of the literature review examines literacy development from a sociohistorical perspective. The studies reviewed illustrate how the social processes operating in a zone of proximal development contribute to the novice's reconstruction of a writing activity. The studies examine how a novice's relationship with peers and experts from her family and community influence her reasons and purposes for writing, and eventually, her reconstruction of a writing activity in a way that reflects her personal ownership of the tools and uses for writing.

Literacy Development

Essential to a sociohistorical perspective (Vygotsky, 1978; Wertsch, 1985) on literacy development is the understanding that literacy, and writing in particular, is a complex activity that occurs within the framework of culturally relevant practices. Therefore, in the broadest sense, reading and writing are culturally specific ways of
conveying meaning and interpreting the world (Cole and Griffin, 1983). Whereas Vygotsky's (1978) work focused on children's development, the sociohistorical approach to literacy development has been applied more recently to adult education programs (Auerbach, 1990; Lipschultz, 1992; McLane and Graziano, 1994). This approach has been documented in family literacy programs that address the literacy development of the adults with their young children. These programs help adults improve their literacy skills, introduce young children to books, writing, and drawing materials in supportive environments, and help families develop their own reasons to read, write, and play together.

Cole and Griffin (1983) defined an approach to literacy development that is compatible with the theoretical framework formulated by Vygotsky (1978) and the sociohistorical perspective (Wertsch, 1985). Cole and Griffin defined literacy development in terms of basic activities: "those that are necessary and sufficient to carry out the whole process of reading [and writing] in the general conditions of learning" (p. 73). Elements of basic literacy activities include:

1. Engaging children in reading and writing for purposes they understand.

2. Involving children in literacy activities at various levels of skill and understanding.

3. Allowing children to assume control of the literacy task when they are ready to do so.

4. Capitalizing on the social nature of children's learning, especially their pretend play with peers.

5. Providing adults with the opportunity to involve children in different reasons for using the skills and mechanics of writing and reading (McLane and McNamee, 1990, pp. 117-121).

McLane and McNamee (1990) describe the ways that young children learn about writing and reading in the context of their closest personal relationships at home, at school, and in their community. Children can learn about reading and writing in the
context of interactions with caregivers and peers in zones of proximal development. During interactions with others that involve print in some way, young children can observe powerful models of literate behavior, they have access to writing and reading materials, and they have opportunities to participate in a variety of literacy activities with guidance and assistance from adults and more competent peers. At home and at school, familiar adults may read books aloud to children and talk about the stories. In some communities, children are encouraged to play with the forms, functions, and conventions of reading and writing. In the course of their social interactions with peers and adults in a zone of proximal development, young children are "pulled into" reading and writing in order to maintain and expand these close personal relationships.

The authors' (McLane and McNamee, 1990) approach to children's literacy development has implications for a novice's reconstruction of a writing activity. A novice's reconstruction of a writing activity is affected by the way that her participation in a literacy activity is scaffolded, the way that her performance is assisted during the literacy activity, and the way that her participation in the literacy activity is guided by others in her community. During literacy interactions in a zone of proximal development, a novice learns how and why mature members of her community use writing and reading. In the context of these relationships, a novice develops her own purposes for writing and reconstructs the writing activity to serve these purposes.

Gundlach (1983) emphasizes the power of these collective social relationships on the child's literacy development in his discussion of the "community of readers and writers" (p. 30). When young children are members of such a community they have an opportunity to see writing and reading as relevant and important activities in the lives of those who care for them, they learn about the uses and purposes of reading and writing from these powerful models, and they experience roles that can be assumed by readers and writers.
If a person participates in a community of active readers and writers, if he reads and writes regularly and if his reading and writing put him in touch with other people, he stands a reasonably good chance of forming notions of genre and style, of developing a general sense of literary enterprise, and of becoming increasingly sophisticated about the act of writing itself (p. 30).

A community of readers and writers can create a zone of proximal development by providing a novice with opportunities for learning and play during literacy activities with experts and peers with various skills and competencies.

The novice's participation in a community of writers corresponds to the concept of guided participation and has important implications for the novice's reconstruction of a writing activity (Gundlach, 1983; Rogoff, 1990). In a community of writers, a novice's participation in literacy activities is guided by experts with different perspectives on the nature, uses, and purposes of writing. In this context, a novice has opportunities to select interesting aspects of the shared writing activity for further attention. A novice reconstructs the writing activity by blending the ideas she appropriated from others in the community with her own reasons and purposes for writing. A novice's voice in writing emerges from her creative reconstruction of the community's perspective on writing.

Gundlach, McLane, Stott, and McNamee (1985) examine the social contexts of children's writing in two mainstream homes and one preschool school classroom. These case studies describe how learning and play in a zone of proximal development guide children's writing development at home, at school, and in the community, while illustrating how children's relationships with others influence their reasons and purposes for writing.

In each case study, the young child's print interests reflect those of his or her family and community. The children are surrounded by print and print-related items at home and in the classroom. In these settings, they have access to writing materials and
opportunities to use these materials while playing with the forms and functions of print and experimenting with the roles associated with writing. The children observe the ways that familiar adults and their more competent peers use writing to convey meaning to others and derive meaning from print. Experts encourage the children to play with print, accept their early writing as a precursor of eventual literacy, and transcribe their oral stories into written narratives. In addition, experts provide the children with the kinds of assistance that help them use writing for their own reasons and purposes.

These case study examples (Gundlach et al., 1985) illustrate how children's relationships with peers and adults in their community influence their reasons and purposes for writing. In addition, they describe the ways in which children's perspective on writing is influenced by the ways that writing is used by peers and experts at home, at school, and in the community. They illustrate how a novice's relationship with peers and experts from her immediate community influence her reconstruction of a writing activity.

McLane (1990) describes how a "supportive adult presence" provides school-age children attending an inner city after-school program with the kind of help they seem to need during a new writing activity. The study describes the children's response to the new writing activity: their initial reluctance to write, their eventual interest and enthusiasm, and their capacity to use print for their own purposes, as well as the different supportive roles of the researchers from Erikson Institute and the paraprofessional group workers caring for the children. Of particular importance is McLane's definition of what a supportive adult presence means in terms of children's writing development. A supportive adult presence includes:

1. Providing children with a time and place for writing, as well as the necessary tools and materials.

2. Expecting that children would write.
3. Responding as interested readers to whatever children wrote.

4. Accepting the children's choice of topics, words, and phrases and providing "technical assistance" to help the children accomplish the task.


McLane emphasized the importance and the complexity of the role of a supportive adult presence in noting that when the researchers were not at the after-school program the children did not write with the same frequency, even when their interest in the writing activity was at its peak and the tools and materials were accessible.

In summary, the sociohistorical approach (Cole and Griffin, 1983; Gundlach et al. 1985; McLane and McNamee, 1990) illustrates three essential features of children's literacy development. First, it is important to engage children in reading and writing activities of varying degrees of difficulty with reasons and purposes that are relevant to them. As the child participates in these basic literacy activities, her performance is assisted by adults and more competent peers. Gradually, the child assumes control of the skills and strategies used by others to guide her participation in literacy activities and uses reading and writing for her own reasons and purposes.

Second, during literacy activities children can be members of several communities of writers (Gundlach, 1983; Gundlach et al., 1985). A child is a member of a community of writers made up of family members and caregivers who share the child's interests and experiences. In addition, a child participates in a new community of writers that provides her the opportunity to carry on dialogues with different writing partners and discover additional reasons and purposes for writing.

Third, during literacy activities, children need access to the supportive presence of an adult who can provide them with a time and place for writing, as well as the tools and materials for the activity (McLane, 1990). A supportive adult expects children to write, responds as an interested reader to their writing, and accepts their choice of
topics, words, and phrases. In addition, the supportive adult makes metacognitive comments on the children's writing.

Recent studies have investigated adult literacy and adult literacy programming from the same sociohistorical perspective that has been applied to children's literacy development in the previous studies (Gundlach et al. 1985; McLane, 1990; McLane and McNamee, 1990). While the adults attending literacy programs bring different needs, considerable accomplishments, and a wide range experience to the classroom, researchers and practitioners have determined that the three elements that support children's literacy development also help adults read and write (Auerbach, 1989; Kazemek, 1988; Lipschultz, 1992; Lytle and Schultz, 1990). For adult literacy learners, reading and writing activities need to be relevant to their reasons and purposes for using literacy. Adult learners need access to communities of writers and readers that support their reasons and purposes for using literacy, while providing opportunities to participate in, and discover, different forms and functions of writing and reading. In addition, adult literacy learners need the supportive presence of an expert who can provide the kind of assistance that maintains a balance between helping and yet nurturing the adult student's independent learning (Lytle and Schultz, 1990).

The study being presented here introduces a new literacy practice to adults. The study is based on the three features of literacy development that are important for children's literacy development and adult learning from a sociohistorical perspective: the importance of basic literacy activities, the novice's participation in a community of writers, and the supportive presence of an expert to provide access to writing activities, opportunities for writing, and the possibility of assistance (Cole and Griffin, 1983; Gundlach, 1983; Gundlach et al., 1986; McLane, 1990).

In the following section of the literature review ethnographies, research studies, and interventions are reviewed in an effort to illustrate some of the similarities and differences in the ways that mainstream and African American children learn about
literacy in the context of their relationships with others. These studies illustrate how a novice's reconstruction of a writing activity is influenced by her particular community's perspective on the uses and purposes of writing.

**Literacy as a Cultural Activity**

The sociohistorical perspective of literacy development views writing as a complex activity that takes place within a framework of culturally relevant practices (Cole and Griffin, 1983; Gundlach et al., 1985; McLane and McNamee, 1990). This perspective assumes and expects variations across communities and cultural groups regarding the ways in which experts or more mature representatives of the community introduce and include novices in literacy activities. These variations include a novice's access to writing tools and materials, a novice's opportunities for participating in literacy activities, and the kinds of support a novice receives from an expert during a shared activity. Indeed, the literature on literacy development in African American communities confirms this hypothesis on cultural variation. The following studies examine the ways in which African American adults in rural and urban communities guide and support young children as they learn the uses and purposes of print in ways that are meaningful in the context of their relationships and community.

Heath's ethnography (1983) identifies, describes, and categorizes the ways in which the adults and children in three Carolina Piedmont communities use oral and written language at home, in school, and in their community. Each community "has its own traditions for structuring, using, and assessing oral and written language" (p. 230). In the African American working class community of Trackton, cultural traditions are evident in the ways in which adults use reading and writing, how children participate in literacy activities in the community, the kinds of help and support they receive, and the way that the community's literacy practices affect the children's school performance.
In Trackton (Heath, 1983), reading was a social activity that took place in the flow of daily interactions in order to accomplish practical goals. Neither adults nor children set aside a special time and place for reading. The adults in Trackton assigned young children specific tasks that required them to develop and use print-related skills. For example, children were sent to the store with explicit instructions to purchase a particular product and pay attention to the price of the item. In order to accomplish this task even the youngest children learned that print conveys meaning. As a result, they paid close attention to print and developed a strategy for "reading" that depended on a strong sense of visual imagery. During these tasks, the young children received indirect supervision from older peers who modeled appropriate literacy practices. During these early print-related experiences children learned a great deal about reading and writing before they went to school. They knew that they can learn to read, they developed expectancies of print, and they learned that print was surrounded by oral communications. (chap. 6)

When these children left the familiar surroundings and relationships of Trackton to attend school they met children and teachers from the other Piedmont communities and different cultural groups with different approaches to literacy. In the educational context, the ways that adults and children in Trackton used written words did "not prepare the children for the way the school system approaches reading and writing" (Heath, 1983, p. 235).

Heath's (1983) ethnography has implications for describing how a novice's reconstruction of a writing activity is influenced by her community's cultural orientation and perspective on literacy. The study illustrates that the African American residents of Trackton used writing differently than the residents of other geographically and economically similar communities that Heath examined. Thus, their reconstruction of a writing activity from another community may be changed or modified to fit local literacy practices.
Gee (1987) offers a cultural linguistic framework for examining the ways in which children acquire and learn the uses and purposes of print in their particular community and how the child's membership in a culturally specific community of writers and readers can influence his or her success in school. According to Gee, an individual acquires and learns two discourses, a primary discourse and a secondary discourse. An individual's primary discourse is acquired by exposure to and participation in face-to-face communicative interactions with intimates of the same culture, community, and family. However, an individual may need to learn a secondary discourse to communicate with individuals and institutions beyond his or her culture, community, and family context.

The primary discourse that African American adults and children use at home and in their communities is not always congruent with mainstream primary or secondary discourse patterns. In some cases, the difference between the primary discourse of African American children and the secondary discourse of the educational system appear incompatible. As a result, the school-based language and literacy development of some African American children appears in need of intervention to prevent the children's failure in school-based literacy tasks (Gee, 1987, pp. 7-10).

The experiences of some African American adults who have attended public school systems and dropped out prior to graduation support Gee's (1987) hypothesis regarding the mismatch between home and school discourse patterns. "Adults who enter literacy programs in the United States rarely enroll in instruction for the first time....they recount poignant histories of failure in traditional classroom learning" (Lytle and Schultz, 1990, p. 359). Adult literacy programs, and family literacy programs in particular, that approach literacy development from the sociohistorical perspective offer adults an opportunity to "redo" school on their own terms (McLane and Graziano, 1994, p. 10). In the process of "redoing school", adults discover their own reasons and purposes for writing and reading, recognize the value and power of
their written words, and understand the important role they play in their children's literacy development and school success. Thus, such programs give adults the opportunity to build connections between their personal goals and skills and those valued by schools and institutions in society.

Cazden and Michaels' (1988) work confirms Gee's (1987) explanation of mismatches in secondary discourse for African American school children. The authors' examined the differences in the discourse of African American and Caucasian children in the classroom and the ways that classroom teachers responded to the children's narratives during kindergarten show-and-tell time. In several classrooms, the Caucasian teachers were more likely to misinterpret the meaning and structure of the stories told by the African American children. The authors wondered if this was "due to a cultural mismatch between the narrative themes and styles of the children and the knowledge and expectation of their white teachers" (Cazden and Michaels, 1988, p. 17). In order to explore the possible ethnic basis for the teachers responses to children's narratives, twelve outside coders, five African American and seven Caucasian, listened to the children's stories. The stories were recorded by a single speaker who mimicked the child's rhythm and intonation. The Black dialect, evident in the grammatical features of the stories told by the African American children, was changed to standard English. The adult informants were asked to comment on the "well-formedness of the story" (p. 17).

The responses of the two groups of informants were strikingly different. The African American adults were more likely to evaluate positively the features of the stories told by the African American children. Moreover, the African American adults were able to expand on what the children meant and make inferences about the meaning of their stories based on similar experiences. Cazden and Michaels' (1988) research confirms the importance and existence of cultural conventions for conveying meaning and illustrates how easily these cultural conventions can be missed in the
classroom. Their findings confirm that there are identifiable characteristics in a cultural reconstruction of a narrative including subject matter, narrative structure, and vocabulary.

Two research studies (McLane, 1990; McNamee, 1990) were designed to help investigate ways of helping inner city African American adults learn new uses and purposes for writing with their children in nonschool settings. The interventions illustrated the importance of introducing the African American adults working with school-age children in nonschool settings to a new perspective on literacy as specific activities were made available to the children in their communities. McLane (1990) describes an intervention in which university researchers introduced a new writing activity into an after-school program in an inner city neighborhood with children from diverse cultural backgrounds in an effort to expand the children's nonschool writing experiences. The study illustrates how social processes operating in a zone of proximal development helped the children use writing as a form of self-expression. During the intervention, the children experimented with the visual and graphic features, formats, and conventions of print, played with the literary forms of writing, and "used writing as a means of exploring, testing, conducting, and commenting on their social relationships" (p. 312).

The after-school program was administered by group workers, two women from the same community as the children. During the intervention, the group workers wanted the children to write and appreciated their writing, but they did not encourage these writing activities when the researchers were not present. The researchers observed that their approach to writing "appeared to violate the group workers' beliefs about what writing is and what writing should be used for" (McLane, 1990, p. 316). The group workers' responses to the new writing activity supported the assumption that different communities have different perspectives on writing, and suggested finding
ways to help adults who work with children develop new perspectives on the nature, uses, and purposes of writing.

McLane's (1990) study illustrates the importance of creating zones of proximal development that assist the performance of adults who work with children (Tharp and Gallimore, 1988). In such a zone of proximal development, adults can reconstruct a writing activity so that it is compatible with their community's perspective on literacy and in doing so, develop a new approach and additional reasons and purposes for writing.

McNamee (1990) describes a similar literacy intervention program in an African American inner city community. The children in this community attended the neighborhood public school and many did not do well in the classroom or on standardized tests. The teachers administering the child care programs were African American women from the same community as the children. During the intervention, the women participated in training sessions and discussions to help them learn different ways to support the children's literacy activities in their classroom. In the process of helping the children learn new uses and purposes of print, the teachers expanded their own reasons for reading and writing. They wrote observations describing children's literacy activities, exchanged dialogue notebooks with parents of children in the program, and recorded children's dictated stories. During the intervention, the teachers demonstrated their capacity to imagine new uses and purposes for writing when the goal was to improve the children's school success (pp. 287-303).

McNameee's (1990) intervention has important implications for describing and analyzing the ways that the four African American group workers in this dissertation study culturally reconstructed a writing activity. The intervention enabled the teachers and the researcher to begin "to help each other achieve things with the children that neither party could do alone" (p. 293). The teachers reconstructed literacy activities to be compatible with the ways they used writing and reading in their classrooms and
community. The teachers' reconstruction of the literacy activities evolved into culturally relevant perspectives on the nature, uses, and purposes of literacy that could help the children bridge the language and literacy gap that existed between their community and the neighborhood school.

McNamee's (1990) intervention was carried out in the same community that provided the setting for this dissertation, and her long-term partnership with the group workers helped create the responsive environment for this study. This community's participation in computer club and the Velham Project represents one way its members chose to explore literacy practices across cultures, and represents an attempt to describe the kinds of activities and interactions that could possibly overcome the discourse problems their African American children face in school.

Conclusion

The review of the literature illustrates that researchers have examined novice-expert interactions in a zone of proximal development with particular attention to the social and cultural processes at work in a novice's reconstruction of an activity. These studies examined the relationship between the novice's reconstruction of a task and the nature of the expert's assistance, and found an inherent link. However, as Rogoff (1990) points out, the "processes of transfer of 'external' activity to the 'internal' plane have received insufficient specification" (p. 194).

The present study adds to the research literature a detailed picture of the social processes and cultural factors that contribute to a novice's reconstruction of a writing activity. The study describes and analyzes the reconstruction of a writing activity by four African American group workers. Data are collected and analyzed to explore how the group workers' reconstruction of the writing activity is influenced by their community's perspective on the nature, uses, and purposes of writing. In addition, the study explores how the group workers' reconstruction of the writing activity is
influenced by the model created for the writing task and by the interaction between the novice and the tutor as they worked on the writing task over time.

The study also examines the creative aspects of the group workers' reconstruction of the writing activity. In reconstructing the writing activity, how does each group worker blend portions of the external model with her culturally influenced and individually constructed perspective on writing? Do the reconstructions of the Wizard writing activity by the group workers reflect unique expressions of each woman in writing?
CHAPTER 3
METHODOLOGY AND DATA ANALYSIS

Research Questions

This study was designed to answer the following questions:

1. Can after-school group workers learn to write letters to children based on a model that includes writing as a fantasy figure, that begins and continues a dialogue, and that requests a response?

2. What kinds of assistance help group workers develop their ability to write letters to children as a fantasy figure based on the model?

3. What evidence is there that the group workers reconstructed the model during the tutorials?

These questions were investigated as follows.

Methodology

Background and Context for the Study

An after-school program in a community center located in a Chicago African American urban housing project was a participant in the Velham Project, a network of after-school computer clubs in the United States and Russia organizing joint activity among school children and adults through telecommunications (Laboratory of Comparative Human Cognition Quarterly, July 1989). Computer club programs were created in both countries as a setting for empirical studies on a variety of aspects of development, including literacy development, from a Vygotskian perspective. The central theoretical principle in these settings was the hypothesis that intellectual skills and knowledge develop in basic activities: social relationships supporting children in
activities in which they are motivated to participate. In the Velham Project, computer club activities took place in "the Fifth Dimension" - a context of play, learning, and communication where adults' and children's activities were regulated by written communications from a Wizard, a fantasy figure who "existed" in the telecommunications system.

Each site in the Velham Project adapted the structure of the Fifth Dimension and the role of the Wizard to fit its local circumstances. At most sites, the adults facilitating the children's computer club activities assumed the Wizard's voice and wrote to the children in this role. Communications from the Wizard regulated the sequence of the children's computer games and activities, mediated their interactions with their peers and the adults involved in facilitating the computer club, and established the Wizard as a partner for ongoing communication. The adults writing as the Wizard were university staff and students, both graduate and undergraduate, affiliated with each site. They were male, female, and represented a range of experience, age, cultural, and ethnic backgrounds. As a result, each adult writing as the Wizard had a unique voice, enriched by individual differences, but coordinated by a generalized understanding of what the Wizard represented in the adult-child literacy interactions of computer club.

From September 1988 to February 1989 the group workers at the Chicago site learned about the structure and operation of computer club. In staff meetings facilitated by members of the Erikson Institute literacy staff, the group workers participated in animated discussions about the identity and function of the Wizard and the Fifth Dimension in computer club. During these discussions, the group workers began to express their own ideas about the playful aspects of computer club.

In the fall of 1988, the group workers visited a similar computer club, which was operating at a near-by university, in order to see how another Velham site organized Fifth Dimension computer club activities. During their visit, the group
workers observed the children's activities and the ways in which the adults facilitating computer club organized the children's group activities, including discussions of the Wizard. These observations helped the group workers develop their own plans about how to include computer club into the community center's after-school program.

In addition to learning about computer club, the group workers received hands-on training from computer experts regarding the computers and the software programs so that they would be able to assemble the computers at the community center. Following these training sessions, the group workers assembled the computers and practiced using the word processing programs and a variety of computer games. They were determined to improve their computer-related skills in order to help the children in their after-school groups participate in the full range of computer club activities. Initially, the group workers relied on the Erikson Institute literacy staff for guidance and support as they learned to operate the computers, memorized the sequence of various commands, and learned the meaning of technological terms. Within a few weeks, the group workers were helping each other use the word processing program to write messages, and were competing with each other while they played the skill and strategy games.

The community center's participation in the Velham Project expanded on the goals of the previous literacy intervention program (McNamee, 1990), which focused on helping the teachers learn to support the children's literacy activities in their classrooms through story dictation and dramatization. That intervention was implemented in an effort to improve the quality of the children's educational experience in the after-school program, especially in the area of literacy development, and to help community members bridge the gap between the ways that language and literacy are used in their community and in the discourse of their neighborhood school.

The community center staff had several goals for joining the Velham Project and introducing the Fifth Dimension and computer club in their community. First, the
program would support the children's literacy development and potentially improve their school performance since computer club activities would introduce the children to new ways of, and reasons for, using writing and reading. Second, it would provide the children with regular access to computers. In learning how to operate the computers, children would become familiar with the technical language that accompanied them. The group workers felt that the children's ability to operate computers would help them succeed in school and possibly secure their future in the job market. Thus, computer club became a way for the group workers to help bridge the gap in computer literacy that existed between their inner city neighborhood and more affluent communities (Cole and Griffin, 1987).

The group workers' extended training period provided them with opportunities to develop their own goals and objectives for computer club. As they prepared for the children's computer club activities, the group workers mastered computer related-skills, adopted portions of the technical language specifically related to the computers, and recognized their own ability to operate the hardware and software. Although the group workers' plans for computer club were closely aligned to the goals of the Velham project, they also had more personal goals. The group workers felt that their increased knowledge about the computers, the telecommunications system, and the software programs, combined with their improved typing and word processing skills, might help them improve their opportunities for employment beyond their immediate community.

In February 1989, the group workers, in partnership with the Erikson Institute literacy staff, began facilitating weekly computer club sessions for four groups of children attending the after-school program. The group workers taught the children how to operate the computers, handle disks, and play skill and strategy games. They also helped the children use the word processing program to correspond with children at other Velham sites via the telecommunications system, and to write letters to the
Wizard. In the process, the group workers practiced and improved their own computer skills.

When computer club began, the Erikson Institute literacy staff wrote Wizard letters to the children in the four computer club groups. These letters launched the dialogue between the Wizard and the children, and modeled Wizard writing for the group workers. In addition, the Wizard letters illustrated possible topics for communication, as well as the kind of language the group workers could use when they started writing as the Wizard. The literacy staff intended to turn this activity over to the group workers when they felt they were ready to write as the Wizard.

When the Erikson Institute literacy staff wrote Wizard letters, the group workers distributed these messages to the children, listened as the children read their letters to the group, and helped the children respond to the Wizard. During this time, the group workers enjoyed listening to the Wizard's letters and occasionally joined in the activity by writing their own messages to the fantasy figure.

In April 1989, two months after introducing computer club activities at the community center, the group workers were facilitating the children's weekly computer-related activities, including game playing and corresponding with children at other sites, but it was the Erikson Institute literacy staff who continued to write Wizard letters to the children. When it became evident that the group workers were not gradually assuming responsibility for Wizard writing, the Erikson Institute literacy staff decided to stop writing as the Wizard, with the intention of eventually finding a way to help or persuade the group workers to assume this role.

By June 1989, the children's computer-related activities were firmly established at the community center, with the group workers developing and implementing their own plans and strategies for weekly activities. However, telecommunications and Wizard writing were still not part of their routines. To begin to address this situation, the Erikson Institute literacy staff decided to offer the group workers a series of
tutorials on the operation and use of the telecommunication system. From June to August 1989, the researcher met individually with three of the group workers for weekly tutorials in telecommunications that focused on expanding their role in the Velham Project. During these tutorials, the group workers learned to operate the telecommunications system in order to correspond with staff and researchers at other Velham sites about their role in computer club and the children's computer club activities.

From September through November 1989, the group workers continued to correspond with Velham sites in the United States and Russia. Their communications included corresponding with the researcher while she was working at the Moscow Velham site for a two month period. In addition, the group workers continued to implement their own plans and strategies while facilitating the children's computer club activities. During this period, neither the Erikson Institute literacy staff nor the group workers wrote Wizard letters to the children.

In November 1989, the group workers had still not assumed control of Wizard writing. By not writing as the Wizard, the group workers were compromising the potential of the Velham Project to support the children's literacy development. Wizard writing had the potential to create the kinds of powerful relationships that could contribute to and support children's reasons and purposes for writing and reading. In addition, by not writing as the Wizard, the group workers were compromising their own determination to help the children in their computer club groups improve their literacy skills, succeed in school, and prepare for their future.

In November 1989, the Erikson Institute literacy staff developed a plan to offer the group workers tutorials to help them learn to write Wizard letters to the children in their computer club groups. The group workers would be paid by the Velham Project since the tutorials would require them to spend additional time at the community center. The group workers' enthusiastic response to the idea of Wizard writing
tutorials indicated that they would bring the same kind of determination to this activity that they had shown when they were learning to use the computers and the telecommunications system, and developing their own strategies for facilitating computer club.

Their motivation to take up a written correspondence with the children through the persona of the Wizard was evidenced in a Wizard letter that the group workers decided to write during a staff meeting in December 1989. The group workers collaborated on this letter. They responded to several children who had continued writing to the fantasy figure even after the Erikson Institute literacy staff stopped writing Wizard letters in April 1989, and preparing the others for the Wizard's return. The group workers decided to tell the children that the Wizard's long absence was due to illness. They began connecting the words and phrases they associated with the Wizard and the Fifth Dimension with what they knew about outer space, and actual cold symptoms. Soon, everyone was laughing and talking at once, contributing and combining their ideas, words, and phrases to write a letter from the Wizard.

In January 1990, fifteen months after computer club was introduced at the community center, the group workers began to participate in tutorials. The tutorials, which were conducted for several months, were designed to help the group workers write letters as the Wizard on an ongoing basis to the children in their computer club groups. This dissertation studies the group workers' development in these tutorials.

The Population: Novices and Tutors

Four African American women, group workers in the community center's state funded child-care program, took part in the study that is the subject of this dissertation. These women had facilitated the children's computer club activities for ten months prior to the sixteen weeks of this study. Two additional group workers were peripherally involved in the study; they worked with a younger group of children who had limited
involvement with the computers. The data from their tutorials was not used in this study since they never worked consistently with the school-aged children in the areas of Wizard writing or computer club.

The four women in this study had long term connections with the neighborhood where the community center is located. Some of the women grew up in the low-income public housing project and attended the local public schools. When this study was conducted, three of the four women continued to live in this neighborhood with their children, parents, and extended family.

Group Worker I, Mary worked in the community center's "Latchkey Program" caring for the youngest children who were ages five and six and attended half day kindergarten at the neighborhood public school. However, one afternoon a week she worked with a group of seven- to ten-year-old children from the after-school program during computer club. Although Mary had not completed high school, she had an early childhood certificate from a city college. Mary lived with her mother, brothers, sisters, niece, and nephew in the housing project two blocks from the community center.

Group Worker II, Jackie, worked with the oldest children attending the after-school program, who were ages eleven to thirteen. Jackie was a high school graduate who lived in the housing project with her school-age daughter and infant son. Her mother, brothers, and sisters lived nearby also.

Group Worker III, Cindy, worked with the youngest children in the after-school program, who were ages six to eight. She was a high school graduate who lived in a neighborhood near the community center with her future husband and their young son.

Group Worker IV, Louise, worked with the children who were ages eight to ten. Louise was a high school graduate and held an AA degree from a city college. She lived in the community with her husband, teenage daughter, and school-age son; her brothers, sisters, nieces, and nephews also lived in the housing project.
The researcher tutored Mary, Jackie, and Cindy, Group Workers I, II, and III. The researcher approached the tutorials with first-hand experience in writing as the Wizard and an understanding of the theoretical rationale for the Wizard in the Velham Project and computer club. She knew that Wizard writing had the potential to create powerful relationships that could support the children's literacy development. In addition, her first-hand experience with Wizard writing helped her understand and appreciate the difficulty of assuming the Wizard's voice and motivating the children to continue a written dialogue.

The other tutor, who worked with Louise, Group Worker IV, was a student in the Erikson Institute masters degree program. In September 1989, she began her yearlong field internship at the community center working with the Erikson Institute literacy staff, group workers, and children in the computer club program. At this time, the children's computer-related activities were well established in the after-school program, but neither the literacy staff nor the group workers were writing as the Wizard. As a result, prior to the tutorials, this tutor did not have the opportunity to write Wizard letters nor had she heard the Wizard's voice in dialogue with the children in the after-school program.

Procedure: The Tutorials

From January to June 1990, the group workers participated in twelve tutorial sessions and four independent writing sessions, each lasting an hour and a half. The group workers were paid by the Velham Project for their participation in the tutorials, since these sessions required them to spend additional hours at the center beyond their scheduled worktime. The tutorials were implemented for three reasons: to help the group workers learn to write Wizard letters to the children, to help the group workers continue to use the telecommunications system to participate in written dialogues with
other adults in the Velham Project, and to help the group workers develop a weekly routine for planning and facilitating the children's computer club activities.

The Wizard-writing portion of the tutorials provided the data for this study. Wizard writing accounted for approximately one-third of each tutorial session, although there was considerable individual variation among the group workers in the amount of time they spent writing Wizard letters. The twelve tutorials were structured so that each session began with the group worker writing one letter as the Wizard to all the children in her computer group or individual letters to the children. Next, the group worker wrote a message to staff at other Velham sites summarizing her tutorial session and describing her plans for the children's computer club activities. She then used the telecommunications system to send this summary message to the other sites. The final portion of the tutorial was devoted to planning the children's weekly computer club activities, including having the children respond to their Wizard letter.

The twelve tutorials were followed by four independent writing and planning sessions. During these independent sessions, the group workers were expected to continue the activities and routines established during the tutorials even though the tutors were no longer working on-site. During this time, the group workers and the tutors used the telecommunications system to exchange weekly messages about Wizard writing, the children's computer club activities, and the group workers' plans for future computer club sessions, but had no face-to-face conversations.

The Model for a Wizard Letter

Prior to the tutorials, the researcher developed a model of a Wizard letter based on the Wizard letters she had written to the children at the community center from February to April, 1989, as well as those written by researchers and university students at other Velham sites. The researcher identified three elements that usually appeared in a Wizard letter, regardless of who was doing the writing:
1. The writer frames the letter in a context of fantasy and playfulness loosely based on an image of the Wizard's life in the Fifth Dimension.

2. The writer connects the fantasy life of the Fifth Dimension and the child's life by finding topics for communication that are interesting and meaningful to the child.

3. The writer attempts to draw the child into continuing the written dialogue with the Wizard.

During the tutorials, the elements of the model for a Wizard letter were not explicitly presented to the group workers. The Erikson Institute literacy staff decided on this approach because the group workers' were familiar with Wizard writing, which had been modeled by the literacy staff during the first computer club session, ten months prior to this study.

Furthermore, the group workers had demonstrated their awareness of the model when they collaborated in writing a Wizard letter to the children in December 1989. In this letter the group workers had included two of the three elements of the model. The group workers included Element 1, framing the letter in a context of fantasy, by saying that the letter was from the Wizard. In addition, they described the Wizard's illness with words and phrases that were based on their image of the Wizard and the Fifth Dimension. They included Element 2, connecting the Fifth Dimension and the Wizard to the children's lives, by apologizing to the children who were waiting for Wizard letters, warning the children that the Wizard was going to disappear for a while, and referring to another familiar fantasy figure, Santa Claus.

Dear Friends,

The Wizard is very sorry that you haven't been hearing from me for a while. I've been sneezing stars and coughing stardust. I'm a bit under the galaxy. I've been trying to catch up with the flying comet to get a big breath of his nice smooth air to make me feel earthly good.
I'm going to disappear
For the rest of the year,
Because there's a great jolly guy
That flies through the sky.
Your Galactic Cold Friend,
The Wizard
(December 9, 1989)

Data and Data Analysis

The data are organized and presented in case studies of the four group workers. The case studies describe the ways in which each group worker reconstructed the model for Wizard writing and how her process of reconstruction contributed to the voice she gradually assumed while writing as the Wizard.

There are four sets of data that address the three research questions. The data include the group workers' Wizard letters to the children, the transcribed audiotapes from the Wizard writing portion of the tutorials, the tutors' fieldnotes from the tutorials, and the group workers' verbal responses to two semi-structured interviews.

Research Question 1

Can after-school group workers learn to write letters to children based on a model that includes writing as a fantasy figure, that begins and continues a dialogue, and that requests a response?

The data to address Research Question 1 are the group workers' Wizard letters written during Weeks 1 to 16. Most weeks the group workers wrote at least one letter as the Wizard. The group workers wrote either a separate letter to each child in their computer club group, or one letter to their entire group addressing individual children within this group message.

Research Question 1 addresses one phase of the group workers' reconstruction of the model for a Wizard letter: the group workers' ability to write letters including the three elements. The full or strong presence of all three elements of the model
during a four week period demonstrated the group workers' ability to write Wizard letters that resembled the model. Each Wizard letter was coded for the presence of the elements according to the following scheme:

Element 1.
The first element of the model involved writing as a Wizard living in a pretend world and representing that world to the children. Element 1 was coded as present when the group worker

1. explicitly wrote the letter as coming from the Wizard;

2. wrote about the Wizard's world using special words and phrases, i.e. "galaxy language".

Galaxy language was a term developed by the Erikson Institute literacy staff and adopted by the group workers to describe the kinds of words and phrases they used when writing Wizard letters. Galaxy language included references to the Fifth Dimension, the Wizard's assistants, and the Wizard's family. Galaxy language could also be used to describe the Wizard's activities and the Wizard's well-being, powers, or accomplishments.

Element 2.
The second element of the model involved beginning or continuing a dialogue with the children. Element 2 was coded as present when the group worker

1. wrote about the computer club activities most children participated in or the computer games most children played;

2. wrote about school events, after-school activities at the community center, or television programs, movies, music, major sporting events, or sports heroes of interest to most of the children;

3. referred to an earlier letter from the child and/or answered a question the child asked in an earlier letter.
**Element 3.**

The third element of the model involved asking the children to respond and continue the dialogue. Element 3 was coded as present when the group worker

1. asked a specific question requiring the child to respond;
   - Do you have any brothers or sisters?
   - What do you want to be when you grow up?
   - Would you please let me know?
   - Would you please hip me to those words?
   - Can you give me a little history?

2. used a conventional closing asking the child to respond;
   - Write back soon
   - Until next time.

3. closed with a directive to respond;
   - Now get busy.
   - Give me some hints.
   - Tell me how that sounds.
   - Keep me posted.

4. closed with a request for the child to respond;
   - Please, someone reply.
   - I need you to tell me...

To check the reliability of the researcher's coding scheme, two outside coders examined a total of twenty-four Wizard letters. The two outside coders were women in their middle and late twenties. Coder 1 was Caucasian, a college graduate, and the program director of a family literacy program. Coder 2 was African American, had a GED (high school equivalency certificate), and was employed as a nursery aide in the same family literacy program. The researcher conducted a brief training session to provide the coders with background information about the Wizard, the Fifth Dimension, and the children's computer club activities (See Appendix A). Following this session, the coders examined and rated three sample letters (See Appendix B). The researcher then answered procedural questions for the outside coders.

Twelve of the twenty-four letters given to the outside coders were written by the four group workers in Weeks 1, 6, and 12 of the tutorials. The remaining twelve
letters were written by the Erikson Institute literacy staff and the researchers and university students from other Velham sites. The twenty-four Wizard letters were arranged randomly and the authors of the letters were not identified. The grammar and spelling of the group workers' letters was changed from Black English into standard English so as not to prejudice the responses of the outside coders.

The researcher developed a set of twenty questions for this reliability coding (See Appendix C). Each question pertained to one of the three elements of the model or to additional elements. There were four questions pertaining to Element 1. Reliability was established if the outside coders and the researcher saw Element 1 in two, three, or four of the questions; otherwise, a discrepancy was noted. There were six questions pertaining to Element 2. Reliability was established if the outside coders and the researcher saw Element 2 in three, four, five, or six of the questions; otherwise, a discrepancy was noted. There were three questions pertaining to Element 3. Reliability was established if the outside coders and the researcher saw Element 3 in two or three of the questions; otherwise, a discrepancy was noted. There were six questions pertaining to other possible Wizard letter characteristics, such as additional ways of using language to represent the Wizard and the Wizard's attitude toward school achievement. The final question asked the outside coders to identify possible additional characteristics and comment on anything significant that they noticed in the letters. In order to determine the presence of additional characteristics, the frequency of the coders' positive responses was tallied. The responses were sorted to determine which group worker included a particular additional characteristic and which coder identified the presence of that additional element.

The sixteen week study was divided into four-week time frames in order to systematically track changes in the presence of the elements of the model in the group workers' Wizard letters. The elements in the group workers' Wizard letters from the four-week period in each time frame were averaged.
Research Question 2

What kinds of assistance help group workers develop their ability to write letters to children as a fantasy figure based on the model?

The two sets of data used to address Research Question 2 are the transcribed audio tapes and the tutors' fieldnotes from the Wizard-writing portion of the tutorials. The conversational sequences in the transcripts and the narrative details in the fieldnotes provided evidence of how the group workers reconstructed the model for a Wizard letter with support and guidance from the tutors.

In June 1989, six months prior to this study, the researcher facilitated tutorials to help the group workers participate in written dialogues via the telecommunications system with the adults facilitating similar after-school computer clubs at other sites in the Velham Project. In these pre-study tutorials, the researcher focused on helping the group workers learn the specific skills, routines, and commands they needed to learn in order to operate the telecommunications system linking the community center with the other sites in the Velham Project.

During these tutorials the researcher offered the group workers the kinds of assistance that supported a novice's participation in a task that was beyond her level of independent functioning during interactions in a zone of proximal development (Vygotsky, 1976; Wood, Bruner, and Ross, 1976; McLane, 1987; Rogoff, 1990). At the beginning of the tutorials, the group workers had used the word processing program to write messages, but they were unfamiliar with the telecommunications system linking the community center to other sites in the Velham Project. Initially, the researcher managed the operation of the telecommunications system. During this phase of the tutorials, she demonstrated the commands that accessed the telecommunications system and verbally assisted the group workers while they practiced and learned these commands. As the group workers assumed more control of this task, the researcher provided them with written instructions as an alternative
source of assistance. Throughout the tutorials, the researcher offered verbal assistance when the group workers indicated that they needed help.

The researcher's fieldnotes from these pre-study tutorials showed that while the group workers were learning to use the telecommunications system, she offered three levels of help: support, guidance, and instruction. As plans for the Wizard-writing tutorials developed, the decision was made to apply this same system of assistance to these tutorials. The researcher identified the kinds of assistance the group workers would need while learning to write as the Wizard, and defined the three levels of help as follows:

1. Support: The tutor's physical presence was a signal of support and the possibility of receiving additional assistance. During the letter writing activity, the tutor also encouraged the group worker's efforts and praised her accomplishments.

2. Guidance: The tutor's intervention was intended to help the group worker establish a routine for writing to the children as the Wizard. The tutor suggested ways of responding to the children, offered the group worker prompts and reminders about including the elements of the model, and suggested or provided other sources of assistance, such as help from a co-worker or a written agenda sequencing the activities of the tutorial.

3. Instruction: The tutor provided the group worker with technical assistance and specific instructions about operating the computer, the word processing program, and the telecommunications system. The tutor also helped the group worker develop a system for keeping track of their Wizard letters and the children's replies.

The researcher hypothesized that there would be a linear change in the level of help the tutors provided as the group workers were learning to write Wizard letters. When the group workers were first learning to write as the Wizard, the tutors would offer a significant amount of instruction, the most directive level of help. As the tutorials progressed, instruction would diminish and gradually be replaced by guidance and support.

The researcher developed a system for coding the transcripts and the tutors' utterances to determine the level of help. Conversational exchanges from the
transcribed audio tapes were examined to illustrate changes in the way the tutors provided assistance and the way the group workers requested and accepted help during the Wizard-writing activity. To check the reliability of this system, the transcripts were examined by a second coder directly involved with the research project, with the design of this study, including data collection and analysis, and with all of the participants. In spite of all the factors in favor of biasing the second coder, it was impossible to achieve a consensus about the level of help the tutor was offering at any point in time. Since the structure of the tutorial was conversational rather than instructional, the tutor's help was offered within the context of a conversation rather than offered within a systematic or sequential intervention. As a result, the tutor's intentions about the kind of help she offered the group worker were never made explicit. Thus, in the case studies only a qualitative analysis of these levels of help are presented, based on the tutors' fieldnotes.

The tutors wrote a set of fieldnotes for each group worker's tutorial during Weeks 1 to 12. These weekly fieldnotes identified and described the decisions the group workers made prior to writing as the Wizard. The decisions were:

1. When to write the letter:
   a. prior to the tutorial
   b. during the tutorial

2. How to write the letter:
   a. longhand
   b. dictated to the tutor
   c. composed and typed at the word processor

3. How many letters to write:
   a. individual letters to each child
   b. one letter to the group of children

The tutors' fieldnotes tracked changes in the group workers' decisions and their decision-making process during the tutorials. The researcher hypothesized that there would be a relationship between the changes in the level of help the tutors offered and
changes in the group workers' decision-making process. However, an analysis of the
group workers' decision-making processes failed to illustrate a direct relationship
between the effects of the tutors' help and the group workers' ability to write Wizard
letters.

Research Question 3

What evidence is there that the group workers reconstructed the model during
the tutorials?

There are two sets of data to address Research Question 3: the group workers'
responses to two semi-structured interviews and the group workers' letters to the
children during Tutorials 1 through 16. These two sets of data contain evidence of
how each group worker reconstructed the model for a Wizard letter similarly to other
Velham Wizard writers and in ways that were unique and particular.

The first set of data include each group worker's responses to two semi-
structured interviews. The first interview, conducted prior to Tutorial 1, provided
baseline information about the group workers' image of the Wizard, the Wizard's use of
language, and what the Wizard can accomplish by writing to children (See Appendix
D). The second interview, conducted immediately after tutorial 12, repeated these
three questions (See Appendix E). The group workers' responses to the two interviews
were examined to determine changes in the qualities and characteristics they associated
with the Wizard, the words and phrases they used when writing as the Wizard, and
their ideas about what the Wizard can accomplish by writing to the children. Each
group worker's response to these interview questions provides evidence of her
reconstruction of the model and the kind of voice she assumed while writing as the
Wizard.

The second set of data, the group workers' Wizard letters written during
tutorials and the independent writing sessions, Weeks 1 through 16, are the same set of
data that was used to address Research Question 1. In addressing Research Question 3, the group workers' letters are examined to determine change over time in the presence of the elements of the model. Evidence of the group workers' reconstruction and the emergence of the voice she assumed while writing as the Wizard was determined by identifying which elements of the model remained strong and which elements diminished during the twelve weeks of the tutorials and the four weeks of the independent writing sessions. In addition, the letters were examined to determine if the group worker had added new elements to the model.

The changes in the presence of the elements in a group worker's Wizard letters during the tutorials and independent writing sessions were examined to provide evidence of her cultural reconstruction of the model. The letters were examined to determine how each group worker reconstructed the model by combining and blending the three elements of the model with her community's goals for the project and ways of using language.

The responses of the outside coders, previously used in Research Question 1 to check the reliability of the researcher's coding scheme for the presence of the elements of the model, also provided evidence about the group workers' cultural reconstruction of the model. The responses of the outside coders were examined to illustrate how the group worker's reconstruction of the model corresponded to the ways that others in her cultural community told a story, used language, and chose topics for the written dialogue.
CHAPTER 4

FINDINGS

This chapter presents the qualitative and quantitative data collected in this study. The quantitative data address the three research questions by tracking the ways in which the four group workers reconstructed the model of a Wizard letter in the tutorials and independent writing sessions. This chapter also presents case studies of the four group workers. The case studies describe how each group worker's reconstruction of the model for a Wizard letter influenced the kind of voice she assumed while writing as the Wizard.

The Reconstruction of the Wizard-Writing Activity

Evidence of the group workers' reconstruction of the Wizard writing activity is based on the findings of change over time in the presence of the elements of the model, and the addition of their own elements to their Wizard letters. Element 1, representing the Wizard, was the least stable of the elements during the tutorials (Weeks 1 to 12). The presence of Element 1 declined in the letters the group workers wrote during the independent writing sessions. Element 2, beginning and continuing a dialogue, was strong or fully present in all of the group workers' letters during the sixteen weeks of Wizard writing. Element 3, requesting a response, was moderately consistent in all of the group workers' letters during the sixteen weeks of Wizard writing.

The findings illustrate that during Tutorials 1 to 12, all of the group workers included Element 1 in their letters, representing the Wizard and the Fifth Dimension, and sustained the presence of this element for four weeks or longer. The findings also indicate that during the independent writing sessions, Weeks 13 to 16, the presence of
Element 1 declined in the all of the group workers' Wizard letters. In addition, following Time Frame 1, Weeks 1 to 4, the presence of Element 1 declined in the Wizard letters written by three of the four group workers. Only Group Worker I showed an increase in the presence of Element 1 during Tutorials 1 to 12.

<table>
<thead>
<tr>
<th></th>
<th>Weeks 1-4</th>
<th>5-8</th>
<th>9-12</th>
<th>13-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Worker I</td>
<td>23%</td>
<td>41%</td>
<td>91%</td>
<td>13%</td>
</tr>
<tr>
<td>Group Worker II</td>
<td>25%</td>
<td>44%</td>
<td>21%</td>
<td>9%</td>
</tr>
<tr>
<td>Group Worker III</td>
<td>100%</td>
<td>61%</td>
<td>47%</td>
<td>0%</td>
</tr>
<tr>
<td>Group Worker IV</td>
<td>67%</td>
<td>50%</td>
<td>47%</td>
<td>36%</td>
</tr>
</tbody>
</table>

The presence of Element 1 suggests that from time to time the group workers wrote Wizard letters that included galaxy language, the kinds of words and phrases the Erikson Institute literacy staff used when they were writing Wizard letters. These findings suggest that while the group workers can write Wizard letters to the children in their computer groups including Element 1, this element as defined in the model, was not an essential or lasting part of their representation of the Wizard.

The findings show that Element 2, beginning and continuing a dialogue, was either very strong or fully present in all of the group workers letters written during Weeks 1 to 16.
Table 2.--The Presence of Element 2 in the Group Workers' Wizard Letters, Over Time

<table>
<thead>
<tr>
<th>Weeks</th>
<th>1-4</th>
<th>5-8</th>
<th>9-12</th>
<th>13-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Worker I</td>
<td>85%</td>
<td>94%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Group Worker II</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Group Worker III</td>
<td>89%</td>
<td>100%</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Group Worker IV</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

There were several reasons for the consistency and strength of Element 2 in the group workers' letters. The Velham Project, the Erikson Institute literacy staff, and the group workers all defined the Wizard as a partner for ongoing communication. For the group workers, the representation of the Wizard as a supportive friend and faithful writing partner was consistent with the long-term relationships they had had with some of the children in their computer club groups. This finding suggests that the group workers' emphasis of Element 2 was an important part of their reconstruction of the writing activity.

The presence of Element 3, requesting a response, was moderately consistent for all of the group workers throughout the tutorials, and linked to the full presence of element 2. Element 3 is present and consistent because the group workers defined the Wizard as a writing partner and made Wizard writing a built-in routine in the children's computer club activities. In some cases, the group workers requested a response from the children in their Wizard letters, while at other times they instructed the children to write to the Wizard during the group time that took place before the children's computer-related activities.
Table 3.--The Presence of Element 3 in the Group Workers' Wizard Letters, Over Time

<table>
<thead>
<tr>
<th>Weeks</th>
<th>1-4</th>
<th>5-8</th>
<th>9-12</th>
<th>13-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Worker I</td>
<td>69%</td>
<td>76%</td>
<td>100%</td>
<td>73%</td>
</tr>
<tr>
<td>Group Worker II</td>
<td>81%</td>
<td>78%</td>
<td>76%</td>
<td>82%</td>
</tr>
<tr>
<td>Group Worker III</td>
<td>100%</td>
<td>52%</td>
<td>53%</td>
<td>0%</td>
</tr>
<tr>
<td>Group Worker IV</td>
<td>100%</td>
<td>67%</td>
<td>59%</td>
<td>78%</td>
</tr>
</tbody>
</table>

The following findings are summarized in order to illustrate the ways in which the individual group workers reconstructed the model.

Group Worker I: The findings suggest that there were two phases to Mary's reconstruction of the model. In Tutorials 1 to 12, when the tutor was present, Mary wrote Wizard letters that closely resembled the model. Her letters displayed a gradual increase in the presence of the elements. In the final four tutorial sessions, Weeks 8 to 12, two of the three elements were fully present, while the third element was present a high percentage of the time.

Mary continued to write Wizard letters in all of the four independent writing sessions, Weeks 13 to 16. During these sessions, there was a change in the presence of the elements of the model, suggesting the second phase of Mary's reconstruction of the model. Element 2, continuing a dialogue, continued to be fully present, while the presence of Element 3, requesting a response, was consistent with the pattern established in Tutorials 1 to 8. This was accompanied by a decline in the presence of Element 1, representing the fantasy figure.
Table 4.--The Presence of the Elements of the Model, Group Worker I

<table>
<thead>
<tr>
<th>Weeks</th>
<th>1-4</th>
<th>5-8</th>
<th>9-12</th>
<th>13-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Element 1</td>
<td>23%</td>
<td>41%</td>
<td>91%</td>
<td>13%</td>
</tr>
<tr>
<td>Element 2</td>
<td>85%</td>
<td>94%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Element 3</td>
<td>69%</td>
<td>76%</td>
<td>100%</td>
<td>73%</td>
</tr>
</tbody>
</table>

These findings suggest that during the independent writing sessions, Mary reconstructed the model by emphasizing the element that was interesting and important for her. This reconstruction of the model contributed to Mary's ability to continue Wizard writing in spite of the changes in the structure of the tutorials, the absence of the tutor, and the reorganization of the community center's scheduling to provide full-time summer programming for the children.

Group Worker II: Jackie emphasized Element 2 throughout the sixteen weeks of Wizard writing. In Weeks 1 to 16, there was little change in the presence of Elements 2 and 3. Element 2, beginning and continuing a dialogue was fully present, and Element 3, requesting a response was present three-quarters of the time. However, Element 1, representing the Wizard, displayed the greatest variation and was present with the least frequency. Jackie wrote Wizard letters in two of the four independent writing sessions, Weeks 13 to 16. The presence of Elements 2 and 3 was consistent with Tutorial 1 to 12, while Element 1 declined to its lowest point.
Table 5.--The Presence of the Elements of the Model, Group Worker II

<table>
<thead>
<tr>
<th>Weeks</th>
<th>1-4</th>
<th>5-8</th>
<th>9-12</th>
<th>13-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Element 1</td>
<td>25%</td>
<td>44%</td>
<td>21%</td>
<td>9%</td>
</tr>
<tr>
<td>Element 2</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Element 3</td>
<td>81%</td>
<td>78%</td>
<td>76%</td>
<td>82%</td>
</tr>
</tbody>
</table>

Jackie's reconstruction of the model included Element 2 from the beginning of the tutorials and remained a central part of her letters throughout the independent writing sessions. Jackie's relationship with the children in her computer group and the effect of this relationship on her approach to Wizard writing is explained in detail in her case study.

Group Worker III: Cindy's Wizard letters, written in Tutorials 1 to 12, illustrate a different kind of change over time in the presence of the elements of the model. In Tutorials 1 to 4, Cindy included a high percentage of the three elements of the model. In Tutorials 5 to 12, there is decline in the presence of Elements 1 and 3, representing the fantasy figure and requesting a response, while Element 2, beginning and continuing a dialogue, was either fully present or mostly present throughout the tutorials. The strong presence of Element 2 was one of the characteristics of Cindy's reconstruction of the model.

Table 6.--The Presence of the Elements of the Model, Group Worker III

<table>
<thead>
<tr>
<th>Weeks</th>
<th>1-4</th>
<th>5-8</th>
<th>9-12</th>
<th>13-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Element 1</td>
<td>100%</td>
<td>61%</td>
<td>47%</td>
<td>0%</td>
</tr>
<tr>
<td>Element 2</td>
<td>89%</td>
<td>100%</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Element 3</td>
<td>100%</td>
<td>52%</td>
<td>53%</td>
<td>0%</td>
</tr>
</tbody>
</table>
Cindy did not write Wizard letters during the four independent writing sessions, Weeks 13 to 16.

Group Worker IV: Louise's Wizard letters, written in Weeks 1 to 16, illustrate a change over time in the presence of some of the elements of the model. In Tutorials 1 to 4, Louise included the highest percentage of the elements of the model. Throughout the tutorials and independent writing sessions, Element 2, continuing a dialogue, was fully present in Louise's letters. In Tutorials 5 to 12 and the four independent writing sessions in Weeks 13 to 16, there was a gradual decline in Elements 1 and 3, representing the Wizard and requesting a response.

Table 7.--The Presence of the Elements of the Model, Group Worker IV

<table>
<thead>
<tr>
<th>Weeks</th>
<th>1-4</th>
<th>5-8</th>
<th>9-12</th>
<th>13-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Element 1</td>
<td>67%</td>
<td>50%</td>
<td>47%</td>
<td>36%</td>
</tr>
<tr>
<td>Element 2</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Element 3</td>
<td>100%</td>
<td>67%</td>
<td>59%</td>
<td>78%</td>
</tr>
</tbody>
</table>

The strength and consistency of Element 2 in all of the group workers' Wizard letters illustrate important similarities in the way that they reconstructed the model. The case studies presented later in this chapter describe the commonalities, as well as the uniqueness, of the ways in which the group workers reconstructed the model for a Wizard letter.

The Construct of Help

During the tutorials, the tutors offered the group workers support, guidance, and instruction. The tutors attempted to offer these different kinds of assistance in ways that were compatible and contingent with the group workers' needs as they
undertook the Wizard writing task in each tutorial and gradually began the process of reconstructing the model.

The effect of the Wizard writing activities modeled by the Erikson Institute literacy staff during the previous ten months of computer club is shown by the high percentage of certain elements of the model in the group workers' letters during Weeks 1 to 4 of the tutorials. These findings suggest the importance of the group workers' past experience as listeners to, readers of, and occasional writers of Wizard letters.

Table 8.--The Presence of the Elements of the Model in the Group Workers' Wizard Letters, Weeks 1-4

<table>
<thead>
<tr>
<th>Element</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Worker I</td>
<td>23%</td>
<td>85%</td>
<td>69%</td>
</tr>
<tr>
<td>Group Worker II</td>
<td>25%</td>
<td>100%</td>
<td>81%</td>
</tr>
<tr>
<td>Group Worker III</td>
<td>100%</td>
<td>61%</td>
<td>47%</td>
</tr>
<tr>
<td>Group Worker IV</td>
<td>67%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

In Tutorials 1 to 12, the conversational exchanges in the transcripts and the tutors' fieldnotes were examined for examples of support, guidance, and instruction during the letter writing activity. The transcripts and fieldnotes suggest that throughout the tutorials, all of the group workers needed some kind of support from the tutor during the Wizard writing activity. The findings from the transcripts and fieldnotes suggest that the tutors' guidance helped the group workers establish a routine for writing as the Wizard during the tutorials. When offering guidance, the tutor suggested ways of responding to the children, offered prompts and reminders about including the elements of the model, and suggested or provided other sources of assistance, such as help from a co-worker or a written agenda sequencing the activities of the tutorial.
The fieldnotes show that in some tutorials, the tutors provided a nonverbal supportive presence, while at other times they offered positive comments about the group workers' Wizard letters. In addition to nonverbal and metacognitive support, the tutors also provided the group workers with the physical fuel they needed to complete the task. Since the tutorials were scheduled at lunchtime, the tutors brought the group workers' favorite snack foods and soft drinks to each session as a way of helping the group workers maintain their energy level during the tutorials.

During the independent writing sessions, Weeks 13 to 16, three of the four group workers continued to write Wizard letters in all or some of the sessions. Group worker I wrote Wizard letters in all four sessions. Group Worker II wrote Wizard letters in two of the four sessions. Group Worker III did not write Wizard letters in any of the sessions. Group Worker IV wrote Wizard letters in one of the four sessions.

The end of the tutorials, the beginning of the independent writing sessions, and the absence of the tutor coincided with the community center's change from after-school to full day programming to accommodate the children during their summer vacation. This change in programming and scheduling was accompanied by changes in enrollment at the community center. Several of the children who had maintained strong and consistent written dialogues with the Wizard left the after-school program, while new children, who were unfamiliar with Wizard writing and the structure of computer club, joined the program. This combination of changes interrupted the routines, activities, and balance of relationships established during the weekly computer club sessions and possibly contributed to changes in the frequency of the group workers' Wizard writing.

A portion of the tutors' fieldnotes for each tutorial session identified and described the decisions the group workers made in relation to Wizard writing, including when they would write their letter(s), how they would write, and how many letters to write. The fieldnotes showed the emergence of unique patterns of decision making
based on individual differences in interactional style between the tutors and the group workers, and the effects of technical difficulties. The fieldnotes provided the following information about the group workers' decision-making processes.

**Group Worker I:** Mary made twenty-nine of the thirty-six possible decisions about the letter writing activity. During the tutorials, there were changes both in when Mary decided to write as the Wizard and in how she wrote. The number of letters she wrote showed less variability. In Tutorials 1 to 7, Mary wrote Wizard letters prior to the tutorial in four of seven sessions. In Tutorials 8 to 12, Mary wrote Wizard letters during the tutorial in four of five sessions. In Tutorials 1 to 7, Mary wrote her letters in longhand in four of seven sessions. In Tutorials 8 and 9, Mary dictated her letters to the tutor. In Tutorials 11 and 12, Mary composed and typed her letters at the word processor. In Tutorials 1 to 12, Mary wrote individual Wizard letters in seven of the twelve sessions.

**Group Worker II:** Jackie made thirty-two of the thirty-six possible decisions concerning the letter writing activity. During the tutorials there were no significant changes in the decision-making process; Jackie made decisions unless there was a problem that affected the letter-writing process. The tutor entered into the decision-making process when there were technical difficulties with the word processing program or the telecommunications system.

**Group Worker III:** Cindy made nineteen of thirty-six possible decisions about the letter writing activity. Although the number of Cindy's decisions suggests that she and the tutor shared in the decision-making process, this was not the case in two of the three decision making categories. In Tutorials 1 to 12, the tutor initiated the decision to write Wizard letters during the tutorials. In eight of the twelve tutorials, Cindy decided to use the word processor to write Wizard letters. The tutor entered this portion of the decision-making process only when there were technical problems with the computer or the telecommunications system. During the tutorials, there was a
change in who made the decision concerning the number of letters to write. In Tutorials 1 to 4, the tutor initiated the decision to write group letters in three of the four sessions. In Tutorials 5 to 12, Cindy decided to write individual Wizard letters to the children.

Group Worker IV, Louise made thirty-one of thirty-six possible decisions. During the tutorials there was no significant change in her decision-making process. Louise made all of the decisions until there were technical difficulties involving the computers which brought the tutor into dialogues with her about how to get the task done.

Instead of the predicted shift in the decision-making process from tutor to novice, the fieldnotes showed the emergence of unique patterns of decision making based on individual differences in interactional style and the effects of technical difficulties. Therefore, the decision-making process did not prove to be a meaningful indicator of change in the level of help the group workers needed to complete the Wizard writing task over time.

The following case studies provide another view of the above findings on the group workers' reconstruction of the Wizard-writing task, and the role of help from the tutors in the process. The case studies integrate the above quantitative data with qualitative data from the tutors' fieldnotes and interviews with the group workers, to arrive at a more complete and detailed picture of the process of reconstruction. The case studies include numerous examples of the group workers' Wizard letters with reference to how they changed over time.

Case Study of Group Worker I: Mary

Mary was familiar with the kinds of letters the children received from adults writing as the Wizard. The previous spring, when computer club was introduced at the Center, Mary worked with a group of children alongside the Erikson Institute literacy
staff who wrote letters to the children as the Wizard. During this time Mary also corresponded with the Wizard, writing teasing playful letters in an effort to get the Wizard to reveal his or her identity. While Mary wrote to the Wizard, she believed that the Wizard's messages somehow originated within the computer. She did not associate the Wizard's voice and letters with the Erikson Institute literacy staff. Mary was disappointed when she learned the Wizard's identity, but pleased to find out that the friendly playful letters came from people she knew and liked.

When the literacy staff suspended Wizard writing and encouraged the group workers to continue this activity, Mary tried to write Wizard letters to the children, but found this task difficult and frustrating. During a meeting with the Erikson Institute literacy staff, she described her attempts at writing as the Wizard and asked the literacy staff for some Wizard letters to copy.

Mary's experience with writing to the Wizard helped her form a mental image of a Wizard and eventually helped her see herself in that role. Mary enjoyed writing to the Wizard. She looked forward to receiving a response and continuing her relationship with this new and mysterious writing partner. For Mary, Wizard writing was an opportunity to provide the children in the after-school program with a personal and positive writing experience.

Mary understood firsthand the obstacles and challenges the children in this inner city community faced in school and in their community. She knew that in order to succeed, stay in school, and remain safe in their neighborhood, the children needed support, encouragement, and understanding from caring adults. During the tutorials, Mary turned the Wizard into another caring, supportive adult on which the children in her computer club program could depend.

For Mary, the tutorials were also an opportunity for personal growth. She was determined to learn how to use the word processing program, improve her typing skills, and become computer literate in order to look for employment
outside of the community. During the tutorials, Mary made careful notes about the commands and routines for operating the computer, the word processing program, and the telecommunications system. Mary filed her notes and referred to them when she worked independently or when a co-worker needed help with a computer-related problem.

Mary liked working with the tutor and the structure of the tutorials. For Mary, the tutor was a helpful and supportive conversational partner. Her previous friendly relationship with the tutor made it easier for Mary to ask questions about computer commands and operations, request help when she was stuck or confused, and experiment with her own thoughts and ideas while writing as the Wizard.

During Tutorials 1 to 12, Mary reconstructed the letter writing activity by writing letters that closely resembled the model. There was a gradual increase over time in the presence of the elements of the model in Mary's Wizard letters. During the four independent writing sessions, Weeks 13 to 16, Mary continued to write Wizard letters. During this time frame, there was a change in the presence of the elements of the model that signaled Mary's continued reconstruction of the model. In these sessions, Mary emphasized Element 2, continuing a dialogue with the children. She de-emphasized Element 1, representing the fantasy figure, and Element 3, requesting a response. Mary's reconstruction of the model during the independent writing sessions suggests which elements of the model that were most meaningful for her.

**Interview 1**

Mary's responses to the questions in Interview 1 provided baseline information about her image of the Wizard, what the Wizard would say while writing to children, and what the Wizard could accomplish by writing to the
children. The first question asked Mary to describe her vision of the Wizard. Mary laughed and replied, "I had great big visions of the Wizard at first. I thought the Wizard was some big thing in the sky, but now I know that the Wizard is a real person. It's me...My vision of the Wizard is me because I know that I have to be the Wizard" (January 18, 1990). Mary's experience in corresponding with the Wizard, and her realization that Wizard letters were written by people she knew and liked contributed to her image of the Wizard.

The second interview question asked Mary to describe the kinds of things the Wizard would say writing to children. Mary said, "...galactic talk, talk of the stars and the galaxy and things like that" (January 18, 1990). Her description of "galactic talk" referred to words and phrases, such as "intergalactic" and "electromagnetic", used by the Erikson Institute literacy staff when they wrote Wizard letters.

In her response to the third interview question, Mary described what the Wizard could accomplish by writing to the children: Wizard letters would "...get the children hyped up and more into writing. You have mail coming in, hearing from someone, getting a letter...It's helping the children out with their literacy and getting more into writing and reading and everything like that" (January 18, 1990). Her response describes her understanding of the value of a dependable and supportive writing partner and the effect that this kind of writing may have on children's literacy development. By corresponding with the Wizard and establishing a relationship with the fantasy figure, the children would have an opportunity to discover their own reasons and purposes for writing.

Thus, Mary began the tutorials with an image of the Wizard, a concrete way of putting this image into words, and a sense of the importance of this activity for the children in her computer club group.
Writing as the Wizard: Tutorials 1 through 7

In the first tutorial, Mary was eager to re-establish the written correspondence, which had been missing since the previous spring, between the Wizard and the children. She told the tutor that she wanted to write a letter to the children in her computer group that would "get the children started back writing" (Transcript, Tutorial 1: January 22, 1990). In this session, Mary composed her message orally and wrote it in longhand before using the word processor to type it on to a disk.

The following conversational exchanges illustrate how Mary included the tutor in the letter writing process by sharing her thoughts and ideas as she orally composed her message, reading aloud as she wrote, and requesting support and guidance during this activity.

M: "Dear Monday Computer Club." I have to think of something good to say, 'cause the last Wizard letter was about Santa Claus in the sky and the great jolly guy. How about this? "It's a new year, I hear."

T: That's good. I like that.

M: Let me see what else...How about something..."It's a new year, I hear. I'm afraid it's a new decade and you're on your way to another one."

T: Right!
(Transcript, Tutorial 1: January 22, 1990)

This dialogue also illustrates how the tutor supported Mary's image of the Wizard and her approach to Wizard writing.

After indicating that the letter was from the Wizard, Mary wanted to tell the children that the Wizard was interested in their achievements and activities, as well as their problems and concerns. She tried to think of words and phrases to represent the Wizard as an interested and caring writing partner.

M: I'm trying to think of something, you know, that will get them started back into their letters.

This dialogue also illustrates how the tutor supported Mary's image of the Wizard and her approach to Wizard writing.

After indicating that the letter was from the Wizard, Mary wanted to tell the children that the Wizard was interested in their achievements and activities, as well as their problems and concerns. She tried to think of words and phrases to represent the Wizard as an interested and caring writing partner.

M: I'm trying to think of something, you know, that will get them started back into their letters.
T: So they'll start writing to the Wizard?

M: Yes. Okay, how about..."We have not heard from each other for a long time, so let's get something going."

T: Good.

M: Maybe they could write me and tell the Wizard about...I was thinking maybe something about their grades. I want to keep up, 'cause last grades were last November. They have grades coming in February...maybe, "Write me a letter and let me know." I don't know how to word it though. "Write me a letter, and let me know...."

T: That's all you have to say..."Let me know how you are doing in school."

M: Yeah. I could just say, "Write a letter to the Wizard," or "write to me right? Okay, maybe they could just write and start a conversation. Maybe somebody writing about a problem they are having with something."

(Transcript, Tutorial 1: January 22, 1990)

After Mary composed and wrote this portion of the letter, the tutor suggested asking the children about their computer club activities to help them make the connection between the Wizard and computer club. The tutor's question helped Mary recall one of the children's favorite computer games and she included a question about this game in the Wizard letter.

T: Anything about computer club today?

M: What about the game Tetris? I could ask, "Who in Monday's group has the highest score in Tetris?" How about that?

(Transcript, Tutorial 1: January 22, 1990)

Mary's first letter as the Wizard included two of the three elements of the model for a Wizard letter. She included Element 2, beginning a dialogue with the children, by asking them about their upcoming report cards and Tetris, a favorite computer game and Element 3, requesting a response, by urging the children to write back and "get something going." In addition, Mary used rhyming words
such as "afraid" and "decade" to indicate that the letter was from the Wizard. These rhyming words represented Mary's way of using language, and was her own addition to the model. Mary's first letter to the children in her computer group reads:

Dear Monday Computer Club,

It's a new year I hear. I'm afraid it's a new decade and you're on your way to another one. We have not heard from each other in a long time. So let's get something going. Write to me and let me know how you are doing in school and who in Monday group has the highest score in Tetris.

The Wizard
(Tutorial 1: January 22, 1990)

Immediately following the first tutorial, Mary facilitated the children's computer club activities. She told the children there was a letter from the Wizard: "We have Wizard letters today. Our Wizard sounds like he's lonely" (Fieldnotes, January 22, 1990). She selected a child to read the letter aloud and instructed the children to respond to the Wizard before they left for home. Four of the eight children did so.

Mary was pleased with the children's responses to her Wizard letter. She answered their letters the following day while the tutor was working in the adjacent computer area with another group worker. The tutor made it clear that she was available to offer support and assistance if Mary needed it. Mary relied on the children's messages to guide the way she responded as the Wizard. In her Wizard letter, she acknowledged each child's letter, responded to the child's questions, and asked a question or offered a supportive comment. Mary's letters focused on establishing a relationship between the child and the Wizard and emphasized Element 2, continuing a dialogue.

In the following letter, Mary included Element 2 by acknowledging the child's message, praising and encouraging the child's goals for the future, and indicating that she had similar ambitions.
Dear Wizard,

I know I haven't been writing to you lately. I am very sorry, but it's okay. I am going to be a teacher and help kids get knowledge and get an education. It's very nice. My friend, Roxanne, is the greatest friend in the world.

Your Friend, Andrea
(Tutorial 1: January, 1990)

Dear Andrea,

You're right, we haven't been writing to each other for a long time. I like your goal of being a teacher. I, too, like to help people and love for people to help me. Roxanne should be a very proud young lady to know that she's the greatest friend in the world.

Your helping friend, The Wizard
(January 23, 1990)

When a child requested information about the Wizard, Mary responded by using rhyming words to describe the Wizard and life in the Fifth Dimension.

Dear Wizard,

I am happy to be writing you. I want you to tell me about yourself. I am very excited that you will tell me about yourself. And I will tell you about me when I hear from you.

Your friend, Monique
(Tutorial 1: January 22, 1990)

Dear Monique,

It's good to be hearing from you. I'll tell you a little about me. I am in a galaxy far, far away and I get great messages every day. So Monique, don't stray away.

From Your Friend, the Wizard
(January 23, 1990)

Mary showed her completed messages to the tutor, who told her that she was "a wonderful Wizard" (Fieldnotes: January 23, 1990).

Mary also decided to respond to the children's letters prior to tutorial 3. That afternoon, Mary asked the tutor to help her with a letter that was "really hard to answer" (Fieldnotes, February 1, 1990). In her letter, the child wrote the Wizard about her plans for the future, described her extended family, and requested specific information from the Wizard.
Dear Wizard,

Let me tell you a little about me. When I grow up I want to be a lawyer and make lots of money. And I'm 11 years old, going on 12. My birthday is July 12. I have one brother and a whole bunch of cousins. And Wizard, what kinds of food do you like to eat? And tell me about your family.

Your Friend Monique
(Tutorial 2, January 29, 1990)

Mary wanted to continue the dialogue and maintain the child's interest in corresponding with the Wizard by responding to all of Monique's comments and questions. Mary acknowledged and supported the child's plans for her future, and provided general information about the Wizard's family and friends. She asked the tutor to help her with the descriptive details about the Wizard's life and the Fifth Dimension. The following conversational exchange illustrates how the tutor's suggestions, questions, and comments helped Mary use her own words to describe the Wizard and the Fifth Dimension.

M: I'm trying to answer Wizard letters, but this is a hard one. She wants the Wizard to tell her about the kinds of food he eats.

T: Oh, you have to think about intergalactic food. What kind of salads would the Wizard eat in outer space?

M: I don't know.

T: How about solar system cole slaw?

M: Or star burst juice?

(Transcript: February 1, 1990)

Mary's Wizard letter included Elements 1 and 2 of the model. She used her own version of galaxy language to respond to the child's questions about the kinds of food the Wizard ate, to describe the Wizard's family, and to convey the importance of the Wizard's relationship to the child.

Dear Monique,

You are right, Monique, lawyers make a lot of money. The food I eat are supersonic cole slaw, star burst galactic meatballs, and solar rays
juice. My family, Monique, is the stars, the wind, the galaxy, you, and all my wonderful friends.
From your good friend, the Wizard
(February 1, 1990)

Mary also responded to the children's letters prior to Tutorial 3. Mary liked writing Wizard letters prior to the tutorials. She took all the time she needed to work on the content of her message, to think about the words and phrases she liked to use when she wrote as the Wizard, and to concentrate on the mechanics of writing. During these tutorials, the tutor assumed the role of a scribe and typed Mary's letters onto a computer disk. As Mary read her Wizard letters to the tutor, she frequently asked for the tutor's advice about the words and phrases she used when responding to the children. This is illustrated in the following exchange.

M: Before you write [type] this, how does this sound? "I'm so glad to hear that you are so busy playing with the games, but don't forget my name, the Wizard."

T: I think that sounds terrific. That really brings the Wizard in. It kind of reminds her to write to the Wizard again.
(Transcript, Tutorial 2: January 29, 1990)

In Tutorials 1 and 5, Mary wrote one letter to all the children in her computer club group following an interruption in the weekly tutorials. Since the children had not received or responded to Mary's previous Wizard letter, her message focused on resuming communication with the children in her computer club group, rather than continuing a dialogue and building a relationship with individual children.

The following letter illustrates how Mary included Elements 1 and 3 in her group messages to the children. Mary included Element 1, when she referred to the Wizard's galactic mail system. When Mary wrote as the Wizard, she frequently used words that were poetic, rather than galactic, to describe the Wizard's friendship with the children. "Then I felt a misty wind of star dust that
crossed my mind and said where in the stars are my friends from the Monday group. The stars are still tingling in my head so write me back real soon." Mary included Element 3, requesting a response, by gently reminding the children to write to the Wizard. Mary wrote that she loved receiving "lots and lots of mail" and "missed hearing from all my pals" when they didn't write.

Hi Kids,

I missed hearing from you all for the last two weeks. What have you been doing in that time? Write me today and let me know what's been going on in the last two weeks. I was going through my galactic mail system and I didn't see anything from you all. Then I felt a misty wind of star dust that crossed my mind and said where in the stars are my friends from the Monday group. The stars are still tingling in my head so write me back real soon.

From your friend, the Wizard
(Tutorial 5: February 26, 1990)

Mary's Wizard letters from the first seven tutorials included more of Element 2, and increasingly, Elements 1 and 3.

Tutorials 8 through 12: A Change in the Writing Process

Tutorial 8 marked a change in Mary's decisions about the letter-writing process. Mary did not respond to the children's letters prior to the tutorial and decided to dictate her responses while the tutor typed at the word processor. In previous tutorials, Mary had often dictated letters to researchers and teachers at other sites in the Velham Project. Therefore, the dictation process was a familiar and comfortable writing alternative for her.

During this tutorial, Mary found it difficult and frustrating to compose and dictate Wizard letters. She felt pressured by the time limits imposed by the tutorial and in the process, seemed to lose the kind and sensitive Wizard voice that was evident in her earlier messages to the children. In an effort to help Mary write Wizard letters the tutor offered frequent, and unsolicited, suggestions about
the content of her responses and the kinds of words and phrases to include in her letters. This kind of assistance was in contrast to the kind of help the tutor had provided in earlier sessions, which had been guided by Mary's questions, comments, and requests.

M: She wants to know, do they play games? "We also have games here. Those games are named skyball."

T: What can you call jump rope, because the kids love it.

M: I'm trying to think of something good.

T: Instead of using rope how about, jump a string of stars.

M: Umm...

(Transcript, Tutorial 8: March 26, 1990)

In Tutorial 9, Mary also dictated her Wizard letters to the tutor in spite of her promise to "pre-write" her letters before the tutorial. This time the letter writing activity was more comfortable and satisfying for Mary, and her responsive, sensitive, and caring Wizard voice returned.

Dear My Citizen Roxanne,

Here in the Fifth Dimension where I live, I live Over the clouds and most of the weather comes from under the clouds. Only kind of weather I get here is a good breath of strong gusty wind. No, Roxanne, I don't have time to publish a book because I am so busy answering and reading mail from all my friends. Do we have book stores? Yes, our bookstore is called the Meteor Book Store. Our books are like your disks that go into the computer. We just take the books and stick it in a machine and the machine does all the work. Write back real soon.

From your citizen, the Wizard

(Tutorial 9: April 2, 1990)

In Tutorials 11 and 12, there was another change in the way Mary wrote Wizard letters. In these tutorials, Mary chose to compose and type her messages at the word processor, while the tutor sat beside her, available to offer support and assistance at Mary's request.
Dear Kids,

I see in my satellite that your school was on spring vacation last week. I missed hearing from all my pals. Send me a letter real soon telling me what you did on your spring vacation. Last week my mail system was very empty so let's get it full again. I love getting lots and lots of mail from all my good friends. Looking in the big galaxy for your rapid responses.

From your friend, the Wizard
(Tutorial 11: April 30, 1990)

Mary's responses to Interview 2, conducted following the twelve tutorials, illustrate how her image of the Wizard had changed during the tutorials. In Interview 1, Mary said that she knew that she was the Wizard. Mary's responses to Interview 2, illustrate that when Mary wrote as the Wizard she expressed the qualities that she valued: loyalty, kindness, and understanding. In response to the first question, Mary described her image of the Wizard: the Wizard was a friend, a problem solver, and a nurturing and caring adult who can sometimes act as a mother figure outside of the home (Interview 2, May 1, 1990).

The second question asked Mary to describe the kinds of things the Wizard said in letters to the children. While galaxy language continued to be an important part of Wizard writing, it was no longer the most salient feature. Mary said that the way the Wizard writes "depends on the letters the children send us and how we answer them back" (May 1, 1990). Mary's response indicates that while the model guided the way she wrote Wizard letters, it was the children's letters that determined the topics, words, and phrases she chose when she wrote as the Wizard. When the children wrote to the Wizard about their activities, accomplishments, and goals for the future, Mary found her own way to link the Wizard's interests to the child's.

The third interview question asked Mary to describe what the Wizard could do by writing to children. Mary replied that the Wizard could "go into their [the children's] wildest mind. Pull out things I don't think a child ever talked
about to anyone." Mary said that sometimes "the Wizard might have to get a little serious" (May 1, 1990). Mary's response demonstrates her willingness to help the children use Wizard writing to express their own thoughts, ideas, and feelings. She supported the children's literacy development by assuming the important role of a conversational partner. Mary understood that this dialogue may not always be about pleasant feelings that are easy to acknowledge and respond to.

The Reconstruction of the Wizard-Writing Activity

During the tutorials, there was a gradual increase in the presence of the elements of the model in the letters Mary wrote as the Wizard. This suggested that Mary had reconstructed the model for a Wizard letter by writing letters that closely resembled the model. The following conversational sequence illustrates how Mary reconstructed Element 1 of the model, representing the fantasy figure.

When Mary wrote as the Wizard, she liked to use rhyming words from her favorite nursery rhymes in place of the galaxy language from the model. During the tutorials, words such as "afraid" and "decade" came to represent Mary's version of galaxy language. Since rhyming words had not been included in the researcher's scheme for coding the presence of Element 1, this use of language represents one aspect of Mary's reconstruction of the model.

T: You're so good at rhyming. Did you ever write little poems?

M: No, I liked poems when I was little. I always liked when someone read those rhyming words.

T: You like the sound of the words?

M: I love "...diddle, diddle, the cat's in the fiddle."

(Transcript, Tutorial 2: January 27, 1990)
During the tutorials, Mary reconstructed the model by including galaxy language in her Wizard letters. She frequently asked the tutor to help her include the kind of galaxy language that was used by other adults in the Velham Project to describe the Wizard and the Fifth Dimension. The following conversational sequence illustrates how Mary included galaxy language in her Wizard letters.

M: "Dear Wizard, What is it like in the Fifth Dimension?" Then she has, "yo Wizard, do you have singers? Your Home Girl, Andrea."

M: "To My Home Girl Andrea." I try to add something to let them know I read it [their letters].

T: Right!

M: "Here in the galaxy, of course we have singers. We have a group"...I want to get into rap, "we have a singing group called the star brights." And let me think of another one..."and the Wiz Wand."

(Transcript, Tutorial 9: April 2, 1990)

Mary's reconstruction of Element 2, continuing a dialogue, is illustrated in the following examples. Mary included Element 2 by responding directly to the content of the children's letters, and relating her experiences and activities to the children's. In her Wizard letters, Mary responded as a dependable, responsive, and interested writing partner. She frequently asked the children about their activities and accomplishments during computer club, in school, and at home. The examples from letters Mary wrote during the tutorials include:

"Let me know, How did you like "Where in the World is Carmen San Diego?"

"How are you doing in school?"

"How was your report card?"

"I see in your letter your telling me you have a new baby brother."

When the children wrote to the Wizard about their achievements and ambitions, Mary found ways to link the Wizard's interests to the child's. The following
examples illustrate the way that Mary used these mutual interests to help sustain the writing activity and create a bond of friendship between the fantasy figure and the child:

"I, too, like to help people."

"I'm so happy to hear you like Tetris. I like it too."

"For my spring break I went to visit Galactic World. It's like your planetarium on earth."

The Independent Writing Sessions

Mary wrote Wizard letters to the children during all of the four independent writing sessions, Weeks 13 to 16, and maintained the routine established during the tutorials. During these sessions, there was a change in the presence of the elements of the model in Mary's Wizard letters that suggested her ongoing reconstruction of the model.

During these sessions, Mary's letters focused on continuing the dialogue with the children in her computer club group. In Weeks 13 to 16, Element 2 was fully present, while Element 1 declined to its lowest point. Element 3 was consistent with the pattern Mary had established during the tutorials.

In the following letter, written in Week 14, Mary used her version of galaxy language, the invented word "starsmatic", when she answered the child's questions about the Wizard's family reunion.

Dear Andrea,

I miss you very much too. No, we do not have a family reunion, we have Starsmatic Day. That's when all my family get together and have a real good time on the mail system.

Your friend, the Wizard
(Week 14: May 24, 1990)

The following letter, written in Week 15, demonstrates Mary's willingness and ability to help the children deal with real problems. This letter is an example
of the kind of relationship Mary envisioned having with the children when she wrote her first Wizard letter.

Dear Roxanne,

Your friend needs your help. She needs some advice from your good mind. Tell her why it is so important for us not to take things that do not belong to us and what may happen if she keeps this up. Tell me Roxanne, is she one of your friends? Please write back soon.

From Your Citizen, the Wizard
(Week 15: June 1, 1990)

In summary, Mary represented the Wizard as a dependable, responsive, and caring writing partner. For Mary, the essential element of Wizard writing was the bond of friendship that developed between the Wizard and the children as they shared their plans, ideas, and mutual interests during the writing activity.

Case Study of Group Worker II: Jackie

Jackie had a close and intense relationship with the children in her computer club group. Although she was dedicated to helping the children develop the academic skills they needed to succeed in school, Jackie was also determined to help each child recognize and appreciate his or her special skills, talents, and potential. Jackie used different strategies to motivate the children: she supported and encouraged some of the children with kind words and individual attention, while she challenged others to compete in sports, computer games, and school activities. Occasionally, she admonished and lectured the children for failing to live up to her expectations and their potential.

Jackie believed that she could help the children succeed in school by supporting their literacy development. She was very proud of the literacy training she received as part of the Erikson Institute early literacy project, her subsequent implementation of the literacy activities in the after-school program, and the children's accomplishments as writers and readers. During this study, Jackie,
along with one of her co-workers and a faculty member from the Erikson Institute, presented the community center's computer club project at a local conference for child care practitioners and professionals. As a result of her experiences and accomplishments, Jackie saw herself as a competent professional in the field of children's literacy development, with the knowledge and skills to help children read, write, and succeed in school.

Jackie was confident about her ability to operate the computers, the word processing program, and the telecommunications system. Ever since computer club was introduced at the community center, Jackie had played computer games with the children and her co-workers, used the word processing program to write stories and letters, and operated the telecommunications system to correspond with a member of the Erikson Institute literacy staff.

Jackie brought these strengths and skills to the tutorials and Wizard writing. Jackie's training and experience in the literacy project contributed to her understanding and appreciation of the role the supportive adult plays in children's literacy development. As a result, Jackie viewed Wizard writing as another way to help the children improve their reading and writing, and their academic achievement.

Jackie approached each tutorial with direction and purpose. She knew which children were waiting for a response from the Wizard, which children needed to be urged to write, and which children needed kind words and support. In her Wizard letters, Jackie teased, cajoled, praised, and admonished the children in an effort to encourage them to write to the Wizard. The qualities in Jackie's Wizard letters, her conversations with the tutor, and her communications with adults at other sites in the Velham Project illustrate the ways in which her reconstruction of the model closely approximated the theoretical model for the role of the Wizard in computer club.
For Jackie, the tutor was a supportive outside voice confirming and validating Jackie's approach to Wizard writing and to the children's responses. Jackie's response to a question in Interview 2 concerning the tutor's help confirms this, "You read the kids letters and let me know that they were writing good stories. I knew that they were saying good things, but it was nice to hear it from someone else" (May 29, 1990).

**Interview 1**

Jackie's responses to Interview 1 provided baseline information about her image of the Wizard, what the Wizard would say, and what the Wizard could accomplish by writing to the children. When asked to describe her vision of the Wizard, Jackie said that the "Wizard is in the stars...with a star hat and moon on it...A person with a long white beard" (January 18, 1990). When asked to describe the kinds of things the Wizard would say while writing to children, she replied that "The Wizard talks about things that don't happen on earth...galactic this and galactic that." (January 18, 1990)

In response to the third question, which asked what the Wizard could do by writing to children, Jackie described her vision of Wizard writing, the Wizard's role in the computer club activities, and her reasons for writing as the Wizard:

- The Wizard can uplift their spirits. The Wizard can educate them to a certain extent...The Wizard can also give the children a sense of direction. The Wizard can ask, "What do you want to be?" The Wizard says, "Okay, you can be this, but I challenge you to do this (January 18, 1990).

For Jackie, the Wizard's voice represented a powerful mediating tool that could be used to encourage, challenge, and educate the children in her computer club group.

**Writing as the Wizard: Tutorials 1 through 7**

In the first tutorial, Jackie was absorbed in the letter writing task as she composed and wrote her message at the word processor. As she typed, she spoke
subvocally, paused to read and edit the letter displayed on the monitor, and laughed at the words and phrases she used to describe the Wizard and the Fifth Dimension. The tutor observed Jackie's approach to Wizard writing, read the letter as it appeared on the monitor, and offered Jackie supportive comments about the content of her message.

Jackie included the three elements of the model in her first Wizard letter. She included Element 1, representing the fantasy figure, by creating a world for the Wizard to live and play in that combined elements from the Fifth Dimension with conditions from the children's lives and her own life. Jackie used the kind of galaxy language that corresponded to the model when she wrote about the earth, moon, and stars. In addition, she introduced Venus, the Wizard's daughter. She told the children about Venus's problems in school and asked them for help and advice. When Jackie invented Venus, and described the Wizard's relationship with the child, she blended her identity with the Wizard's persona in a way that both resembled and expanded the model.

Jackie included Element 2, beginning a dialogue, by relating the Wizard's fantasy world to the children's lives. In her letter, Jackie asked the children about the weather on earth, their school activities (especially their grades), and their favorite sports teams. In addition to asking questions, Jackie used other strategies to encourage the children to write to the Wizard. She sought the children's advice by asking them to help Venus improve her grades, and boasted of the Wizard's athletic ability by challenging their favorite basketball superstar, Michael Jordan, to a game of one-on-one in the Fifth Dimension.

Jackie's letter included Element 3, requesting a response, by asking the children for specific information about the weather, school, and sporting events.

No. 1 Basketball Wizard

Hello, you down-to-earth Wizard lovers. How's the weather down there? Up here it is stars and moons. I gave you a couple of days to go outdoors, and I hope your group workers have taken you out
because I couldn't hold my hot foot up too long. So, how's the Bulls and how's school? I hope the grades are better than my daughter's. Her name is Venus. She gets Jupiter on her report card and that's like getting F's down in your school. I want her to get stars. Those are like A's you'll get. Can anybody tell me how she can improve her grades? I know I am the Wizard but I can't do a thing about those grades. Please, someone reply. The Wizard needs help with her daughter's grades.

Sooo my cold has gotten better. No one seemed to remember I had a very bad cold. So can someone say I'm glad that the Wizard is feeling better? He's not sneezing dark blue moons and stars.

Hey, everybody says that Michael Jordan is bad on the basketball court, but I can beat him every time. See, he'll never be able to stand on my court. They say he can fly. That's impossible. So let's see him on my court. He's afraid to challenge me one-on-one. When I beat him he'll run home and tell everyone who's no. 1. The Wizard! He floats like a jet and lands like a butterfly, straight in the basket for three points.

So good-bye for now.

Your no. 1 basketball player, the Wizard
(Tutorial 1: January 23, 1990)

When the children met for the computer club, Jackie announced the Wizard's return, gave each child a copy of the Wizard's letter, and selected a child to read the letter to the group. One of the boys in her computer club group responded to the Wizard's letter. He defended his basketball hero, MJ, and challenged the Wizard's athletic ability.

To the Wizard,

The Bulls heard what you are saying about MJ. And you said you can fly twice as fast as MJ, but MJ can fly four times as fast as you can. When MJ goes for a slam your pants will fall down and your eyes will fall down. And I can list the slams that MJ does. The Leaning Tower, the Double Pump, Hang Time, and the 360. You can't even jump like the weakest basketball man.

Lawrence
(Tutorial 1: January 23, 1990)

This child's response illustrates Jackie's ability to link the Wizard's world to the events and activities that are important to this child.

In Tutorial 2, Jackie described her plan to write a Wizard letter in order to resolve a conflict between two of the children in her computer club group. Jackie
told the tutor about the conflict, described her plan to use the Wizard letter to resolve it, and made notes about what she wanted to include in her letter. In the following conversational sequence, Jackie explained why she thought a letter from the Wizard could help the children resolve their differences. Her explanation illustrates how she expanded her image of the Wizard in order convey her high standards and expectations to the children, and combined this with the more conventional image of the Wizard she described in Interview 1.

J: I got a couple of things I have to do. Let me jot them down. I have to do something for Andrew because he wanted to fight yesterday. And I want to let them know it came over my [the Wizard's] telecommunication. I want to use that word...I want to put in their letter that those things came over my wavelength ears, I hope that things are better and your group workers don't find out about the incident.

T: So you want the Wizard to help solve this problem?

J: I feel that's what the Wizard is. He's supposed to be someone with things or they feel he knows certain things...I'm pretty sure the boys are going to want to know, "How did he know we argued? Nobody knew that but Jackie." And then [the Wizard] said, "Don't let your group workers know." When they read it, they'll comment. You have to use something to get them to write back. I'm pretty sure that the boys are going to want to know, "How did [the Wizard] know that we argued?" ...when [Andrew] reads it, he'll comment.

(Transcript, Tutorial 2: January 30, 1990)

Jackie's second Wizard letter also included the three elements of the model. She included Element 1, representing the fantasy figure, by continuing to describe the Wizard as an athletic superstar with keen observational skills. She included Element 2, continuing the dialogue, by addressing the children's argument and promising to keep this information a secret. In an effort to include all of the children in this written dialogue, Jackie continued to challenge their favorite basketball hero. She included Element 3, requesting a response, by
asking the children to respond with a message on the telecommunications system: "give me a buzz on that hotline."

Hello my starry eyed friends,

I've received your letters and [I am] happy to hear from you. I hope that my friends that wrote Michael Jordan can leave dust behind him. I know that he can because when I get finished with him he'll be burning from thirst because I can fly twice as fast and jump twice as high. So bring on that Broncos and I'll show you the 49ers. Okay?

Hey, I saw through my Wizard eyes that a couple of my fellows were about to get into serious trouble and I hope you iron it out before your group workers get wind of it.

To all my wonderful ones that haven't gotten a chance to write. I love you, so you could give me a buzz on that hotline.

Wizard the main rapper, I'm outta here, Wizard
(Tutorial 2: January 30, 1990)

In Tutorials 1 to 7, Jackie wrote one Wizard letter to the children in her computer club group, responding to individual children within these group letters. In these letters, she presented the Wizard as a dependable writing partner, a loyal friend, an athlete with superhuman sports skills, and a concerned parent.

**Writing as the Wizard: Tutorials 8 through 12**

In Tutorials 8 to 12, Jackie wrote individual letters to each child, rather than writing one Wizard letter to the entire group. In Tutorials 1 to 7, Jackie's description of the Wizard and life in the Fifth Dimension helped the children develop an image of the Wizard, established a relationship between the children and the Wizard, and engaged the children in an ongoing written dialogue. In Tutorials 8 to 12, Jackie assumed a more serious Wizard voice to address the children's personal and educational issues. During these tutorials there was a decline in Element 1, representing the fantasy figure, that corresponded to the shift in the focus of Jackie's letters.
When Jackie addressed a child's personal and educational issues, the Wizard assumed the role of teacher, advocate, and friend. Her responses were guided by the child's most recent letter to the Wizard, as well as by her knowledge of the child's school issues, after-school activities, and special skills and talents. Jackie further personalized these individual messages by signing each communication with a phrase referring to something special in the child's letter or the Wizard's response.

The following Wizard letters illustrate how Jackie approached school-related issues. In the first letter, she knew that Andrew was a talented rapper, a skill that had earned him the respect of his peers. She also knew that he was not doing well in school. Jackie, writing as the Wizard, encouraged Andrew to channel some of his rapping skill into his schoolwork.

What's up, Andrew?
I think you did very well with what I gave you. You have a way of putting words in great order. I wonder sometimes, does your school work reflect this? Because if it does, you should be getting A's, if not B's. Let me know how things are going.
Your Rappin' Wizard
(Tutorial 10: May 8, 1990)

Jackie wrote the following letter to Rose, a child who was new to computer club and the after-school program. Jackie knew that Rose had some special learning problems. She used this letter to inquire about Rose's computer club activities, to determine the kind of help Rose needed, and the kind of help she actually received in school. Jackie also wanted to establish the Wizard as an interested and helpful writing partner who was concerned about Rose's school-related issues.

Hello Rose,
How is the game going? Did you play? Was it helpful? Did you get any points? How is your reading? Is it better? Does your teacher at
school help you better with spelling or reading? I hope I have been of some help. So let me know.

Your educational Wizard
(Tutorial 11: May 15, 1990)

Throughout the tutorials, Jackie continued to expand the role and image of the Wizard. Her Wizard letters reflected the strength of her relationship with the children in her computer group, her concern for their academic success, and her ability to use the Wizard's voice to communicate these feelings and concerns.

Interview 2

Jackie's responses to Interview 2 demonstrated that during the tutorials her image of the Wizard and her perspective on the adult's role in children's literacy development did not change substantially.

In response to the first question, Jackie described her image of the Wizard. The Wizard is "someone that sits high in the sky...with a long beard and a hat with stars and a moon, and a crescent wand" (Interview 2, May 29, 1990).

In response to the second question, Jackie described what the Wizard said to children, "The Wizard says things to cheer you up. The Wizard catches you off guard and lets you know there is a Wizard. The Wizard teaches the kids education. The Wizard shares words, thoughts, and feelings" (May 29, 1990).

During the tutorials, Jackie learned that the Wizard could assume different voices. In some letters, the Wizard was playful and mysterious, while at other times, the Wizard's messages were serious and thoughtful.

In response to the third question, Jackie described what the Wizard could do by writing to the children.

The Wizard can help the children build self-esteem. The Wizard can make them want to work harder. If a child has a problem in school or bad grades the Wizard can zero in on it. The child will work harder because
he wants to please the Wizard. The Wizard builds friendships. The Wizard is your personal friend (May 29, 1990).

In all of her letters, Jackie represented the Wizard as a loyal and concerned friend. Jackie continued to use the Wizard as an educational tool to motivate, support, and challenge the children. She encouraged the children to work hard in school so that they could reach their potential, and helped them recognize and appreciate their special skills.

The Independent Writing Session: Weeks 13 through 16

Jackie wrote Wizard letters in two of the four independent writing sessions. In the first session, she wrote individual letters to the children in her computer group, thereby continuing the pattern she had established in Tutorials 8 to 12. In the following letter, she encouraged Michael to continue writing rap songs, and inquired about his goals for the future.

Hello Michael,

I love your rapping, but I would like for you and Andrew to do a piece together. It is good that you all do get along and not fight because I thought that you all didn't get along. Hey, I want to ask you something. What do you want to be when you grow up? I am just curious. Do you mind if I ask. I hope not?

Your Curious Wizard
(Week 13: June 6, 1990)

In Week 14 of the second independent writing session, Jackie said that she was "...trying something new in this Wizard letter" (personal communication, June 13, 1990). Jackie was worried that the children were losing interest in Wizard-writing, and she wanted to encourage them to continue their relationship with the Wizard. Jackie wrote one lengthy letter, addressing all of the children in her computer group. In the following passage, she urged the children to continue
writing to the Wizard, suggested new computer-related activities, and asked the children to share their ideas:

I hope that you all still like me. But why don't you write some type of line to keep our conversation going...I want to make computer club more fun. We need some more things to do. Do you all agree?

Jackie admonished the children for not responding to the Wizard:

Andrew, I am not glad that you didn't write me, but I think we all need a break from rapping so much.

She praised their accomplishments:

To Michael, I know that you like to rap and I hope that you can find something else that you are good in.

Finally, Jackie asked the children to help the Wizard. She was planning the closing program for the after-school program and wanted to include the children in this process. In the following passage, she teased, cajoled, and challenged the children, in an all-out effort to get them to continue writing to the Wizard.

Hey, you guys, I have a problem maybe you all can clear up. Someone wrote me a line or two and said that you all were having an end of the year program. What is that? Is your world coming to an end. They asked me for some help. Who can help me on this one? (Week 14: June 13, 1990)

During the tutorials and independent writing sessions, Jackie emphasized Element 2 of the model. She continued the dialogue with the children in a way that combined her thoughts and feelings about the children and her image of the Wizard with the elements of the model.

The Reconstruction of the Wizard-Writing Activity

Jackie's relationship with the children, represented in part by the full presence of Element 2 throughout the tutorials and independent writing sessions, dominated her reconstruction of model. She was concerned about the children's success in school,
their personal achievements, and their interactions with their peers. In Interview 2 Jackie stated, "I have my own ideas about the Wizard. I was into my kids. I know what my kids needed" (May 29, 1990).

Jackie's Wizard letters included an element of playfulness that did not always correspond to the researcher's coding scheme, but was meaningful to Jackie and the children in her computer club group. In her first Wizard letter, Jackie invented an additional fantasy figure, Venus, the Wizard's daughter. Jackie wrote to the children about Venus's problems in school, the Wizard's desire to help her do better, and asked the children for their suggestions. During the tutorials, several girls wrote to the Wizard and expressed their desire to correspond with Venus. In the Tutorial 12, Jackie decided it was time to "bring Venus in", and she wrote a message from Venus.

Hi Linda,
I'm Venus. I don't like to tell my age because I could be older than you. The Wizard told me you had some girl talk for me. And I guess you want to know why I say Wizard, because that is the only word to call him. I hope you are not angry because I did not write you. I have too much homework to do because my grades are bad.
Love, Venus
(Tutorial 12: May 22, 1990)

Venus's introduction represented Jackie's desire and ability to find her own ways to include fantasy in her Wizard letters.

In the final tutorial session, the tutor asked Jackie to write a letter to the other Velham sites summarizing her approach to Wizard writing. In this message, Jackie described the important relationship the Wizard developed with the children; the Wizard's ability to motivate the children to read and write, thus supporting their literacy development; her plans for the future, including her fear of "losing" her children; and her rationale for introducing the Wizard's daughter.

Jackie's message described in her own words activities, interactions, and relationships typical of those in a zone of proximal development. In the first
paragraph, Jackie described the Wizard as a supportive adult presence who could provide the children with just the right kind of help as they needed it. In the second paragraph, Jackie described the way that the adult helps the child participate in activities that are beyond his or her level of independent functioning. In the third paragraph, Jackie described the kinds of shifts and changes that accompany the role of the adult in a zone of proximal development.

I feel that the Wizard has opened up parts of the children that they did not know they had. They became open and they had a friend to the end if it ever got that far, and the Wizard is like a mother and father also can be your sister and brother. The children had someone to lean on if the they just needed to talk. But as adults you do not know that child feels a certain way but being a Wizard you can help in so many ways and feel good about yourself.

My children loved to hear from the old Wiz. They also talked about the secret of what he is and that made them write out of curiosity to see if they could figure out was he here with them. The Wizard ran and the children was trying to catch up and the writing became more advanced from stories, raps, poems, questions, answers, and friendships.

I plan to continue the way I am going. I have made some extra work for myself in making up someone because I am losing my children. And I will do a little different in maybe changing the way to get my children to think about the future a little more and look for more positive things out of them.

(Tutorial 12: May 22, 1990)

In summary, throughout the tutorial Jackie remained focused on the children in her computer club group. She was determined to help the children succeed in school and confident that she knew the best way to achieve this. The elements of the model that Jackie included in her Wizard letters, her conversations with the tutor, and her communications with her colleagues in the Velham system, describe how and why she reconstructed the letter writing task and the role of the Wizard. These data also illustrate how her reconstruction of the model most closely approximated the
theoretical rationale for the role of the Wizard as a tool for supporting children's literacy development.

Case Study of Group Worker III: Cindy

Cindy learned to operate the computers when the computer club project was introduced at the community center the previous year. She used the word processing program to write stories and letters with the children in the after-school program, and the telecommunications system to correspond with teachers and researchers at other sites in the Velham Project. Cindy also enjoyed playing arcade-like computer games with the children and her co-workers and using a graphics program to make greeting cards and posters.

During the tutorials Cindy facilitated computer club activities for the first- and second-grade children attending the after-school program. Initially, Cindy referred to her group as "Cabbage Patch Babies", but after Tutorial 3 she called the group the "Pee Wees". Although the children in her group were familiar with the graphics and commands of some of the computer games and writing programs, they were unfamiliar with the structure and activities of computer club, especially writing to the Wizard. This computer club session (January to June 1990) was their first opportunity to use the computers regularly for game playing and writing activities. At a staff meeting prior to the tutorials, Cindy expressed her concern about how these young children would be able to participate in all the computer club activities.

Cindy reconstructed the model by adapting and personalizing the three elements. Cindy included Element 1, representing the fantasy figure, by describing the Wizard as a combination of fantasy figures, including Santa Claus and the Tooth Fairy. Cindy included Element 2, continuing a dialogue with the children by echoing their words and phrases and supporting their plans for the future. She included Element 3,
requesting a response, by asking the children to tell the Wizard about their computer club activities.

Interview 1

Cindy's responses to Interview 1 provided baseline information about her image of the Wizard, what the Wizard would say, and what the Wizard could accomplish by writing to the children. In response to the first interview question, Cindy described the Wizard as "a little man with a long mustache and a purple hat with the stars and the moon" (January 18, 1990).

The second interview question asked Cindy to describe the kinds of things the Wizard would say while writing to children: "The Wizard talks about the galaxy. He talks about what he does every day, the things he wishes he could do. He asks the kids what they are doing" (January 18, 1990). In her response, Cindy described the reciprocal nature of the children's communications with the Wizard.

In response to the third question, Cindy described what the Wizard could do by writing to children:

He lets the kids figure out if there really is a Wizard and where does he really live and what does he really do. If he really lives up there by the stars and the moon. Does he really know what goes on with you every day (January 18, 1990)?

In Interview 1, Cindy described the Wizard as a mysterious and interesting writing partner who might live in the galaxy and possess superhuman powers. Her responses suggested that the children in her computer club group could learn more about the Wizard's identity by corresponding with the fantasy figure.
In the first tutorial, Cindy and the tutor talked about how to introduce the Wizard to the young children in her computer club group. Cindy decided to use "little, little words...not really big, big words" in her Wizard letter (Transcript, Tutorial 1: January 25, 1990). Her comments referred to the galaxy language the literacy staff used in their Wizard letters that included words such as "electromagnetic" and "telecommunications".

As Cindy composed and wrote her letter, she read subvocally and smiled at the words and phrases she included in her message. She included Elements 1 and 3, representing the Wizard and requesting a response, in her first Wizard letter. She included Element 1 by using "little words" such as star, cloud, and galaxy to describe the Wizard's home. She included Element 3, by telling the children that she "hoped to hear from them soon."

Hello Little Cabbage Patch Babies,

I am the Wizard from the far away galaxy. I'm sorry that I have not got to you sooner, but it's been so busy way up here in the cloud and star. But today I just got through before the rain and snow came just to send you a short message to let you know that I have not forgot about you and I hope to hear from you soon.

The Wizard
(Tutorial 1: January 25, 1990)

When the children arrived for the computer club, Cindy announced that a Wizard "in a far-away galaxy" had sent them a letter, and selected a child to read the message to the group. Cindy then described her image of the Wizard. "You know what I think? I think he [the Wizard] wears L.A. Gears and stonewashed jeans and a Bulls jacket" (Fieldnotes, Tutorial 1: January 25, 1990). She then provided the children with crayons and paper and told them to draw a picture of what they thought the Wizard looked like. As the children drew, they talked to each other about wizards, evil spells, and magic potions. Several of the children drew the Wizard as an old man with
When their drawings were completed, Cindy helped the children dictate one-line messages to the Wizard about what they wanted to be when they grew up: "I want to be a taxi driver." "I'm going to be an artist." "I want to be a nurse" (Fieldnotes, Tutorial 1, January 25, 1990). Cindy was very pleased with the children's responses to their first message from the Wizard, and carefully placed their drawings and dictated messages in a file so she could respond to them during her next tutorial.

In the second tutorial, Cindy responded to each child's one-line message. At the beginning of the tutorial, the tutor suggested that Cindy read each message before responding. The tutor's suggestion helped Cindy develop a routine for writing and responding to the children.

Cindy acknowledged John's letter to the Wizard by echoing his words, and supporting his plans for the future. Since Cindy composed and typed her message at the word processor, the tutor was able to read the message as it appeared on the monitor. When Cindy paused, the tutor suggested that she include something "that is going to make John want to write to the Wizard again" (Transcript, Tutorial 2: February 1, 1990).

When Cindy resumed writing, she incorporated the tutor's suggestion into her letter by asking the child to tell the Wizard about his favorite computer game. Cindy included the three elements of the model in her letter to John. Cindy included Element 1 by indicating that the message was from the Wizard and referring to the fantasy figure's magical powers, she included Element 2 by echoing John's words and supporting his plans for the future, and she included Element 3 by asking him to write back with information about computer club activities.
I want to go to school to get a good education and be a doctor.
John
(Tutorial 1: January 25, 1990)

Hello John,
This is the Wizard returning your message. I am so happy that you want to stay in school and get a good education. That is showing me that you want to be somebody. I wish you much luck in shooting for your goal.

Also, John, I would like to hear from you about the different things that you all do on the computer. Like the games you like to play the most or which games you have a problem with.

Maybe I can send you a little magic to help you out, but you must write to let me know.

the Wizard
(Tutorial 2: February 1, 1990)

Cindy used this formula to respond to the other children's letters. She read each child's message, acknowledged the child's communication by echoing his or her words and phrases, offered words of encouragement, and included words such "magic" and "galaxy" to represent the Wizard.

Several times during the tutorial, Cindy asked the tutor to help her describe the Wizard. While the tutor always offered suggestions, Cindy did not always incorporate the tutor's ideas into her letters. On several occasions, the tutor suggested that Cindy ask her co-worker, Mary, for help. Mary referred to the Wizard letter she had written, and shared ideas and images with Cindy.

T: One of the kids in Mary's group wanted to be a nurse.

C: Mary, how did you answer your kids who wanted to be a nurse?

M: Some of them wanted to be a nurse because they wanted to help people, and I just told them I think that's a good job to want to be when they grow up, because I too, the Wizard likes to help people.
(Transcript, Tutorial 2: February 1, 1990)

Cindy readily incorporated Mary's suggestions into her Wizard letter.
I want to be a nurse.
Lisa
(Tutorial 1: January 25, 1990)

Dear Lisa,

I am so glad that you want to be a nurse because there is so much sickness in the world. Also, here where the Wizard lives. So much star dust clouds and sun spot fever. You have different sickness on your planet, but everyone needs somebody to help them. So I wish you good luck. Write soon.
The Wizard
(Tutorial 2: February 1, 1990)

In Tutorial 2, Cindy worked hard responding to the children's messages. In her Wizard letters, she included the elements of the model, while developing her own images and ideas about the Wizard. Cindy included Element 1, representing the Wizard, with words and phrases describing the Wizard and life in the Fifth Dimension.

"You are only 5 star or 6 star years old."

"I was sitting her in my cushy cloud chair."

"Here where the Wizard lives there is so much star dust and sun spot fever."
(Tutorial 2, February 1, 1990)

Cindy included Element 2, continuing the dialogue, by acknowledging the child's letter, echoing the child's words and phrases, and adding words of encouragement and support.

You said that you want to be an artist. We have great painters up here... So maybe I can send you one of my magic pencils. Maybe that will help you out a little. I wish you all the luck. (Tutorial 2: February 1, 1990)

Cindy included Element 3 by asking the children about their interests and activities.

"So if you really want a job write back."

"Please let me know if my pencil will help you out."

"Will you please write me and let me know why you must have this check."
(Tutorial 2: February 1, 1990)

In Tutorial 3, Cindy wrote one letter in which she individually addressed the children in her computer club group. She used the formula she developed in Tutorial 2,
and relied on the content of the children's letters to guide her responses as the Wizard. In this letter to the children, Cindy mentioned each child by name, echoed portions of the child's message, praised the child's accomplishments, and encouraged the child to continue writing to the Wizard.

Cindy's Wizard letter included the three elements of the model. She included Element 1 by describing a Wizard who lived in the stars and moon, played galaxy sports, and had some magical powers. She included Element 2 by echoing the children's words and phrases. She included Element 3 by asking the children to "call the Wizard telecommunication hot wire".

Dear Pee Wees,

Well, how are you guys doing? Well, Lisa, I like you so very much also. And by the way Mark, I am glad that you would like to be an artist. Your magic pencil is on the way. Maybe it got hung up in the star dust cloud. Quentin, I also miss you and I hear that you are getting pretty good on Odell Lake. Please keep playing. Well, Tina, I miss you too. I hear that you are a very good helper on the computer because you have had computer before some of the other Pee Wees and that you are very good with the games. John, I wish that you were here with me also because sometimes the Wizard gets lonely and needs company. We play hockey sky skating and we use a meteor for the puck. Toya, I am so sorry that you did not get a letter, but maybe it got lost. So you must write and tell me about yourself. Hello, Tanya. Well, I see we have another painter. I wish you much luck also.

Well, Pee Wees, I need some help from you guys. We up here in the galaxy are having a problem with some of the games and we need your help. So maybe you guys can play the games and get good at them, then call the Wizard telecommunication on the hot wire to let us know about the games.

Your friend, the Wizard
(Tutorial 3: February 8, 1990)

Following Tutorial 3, there was a break in the weekly tutorial sequence. As a result, the children had not received or responded to Cindy's last Wizard letter. Since Cindy relied on the children's messages to guide her responses, this break in communications disrupted her writing routine. In Tutorial 4, Cindy was not sure about how to write a Wizard letter. The tutor suggested that Cindy write a message asking
the children about their favorite computer games. Although, the tutor's suggestion helped Cindy write a Wizard letter including the elements of the model, Cindy's message lacked the personal responsive quality that was apparent in her earlier Wizard letters.

Hi Pee Wees,

I am very upset not to receive a letter from you little guys because I was hoping to learn a new game from you. But I guess that you were very busy playing all the wonderful games that you have. I am hoping to hear from you soon.

The Wizard

P.S. Mark and Tanya, I have not forgot about your magic pencil. It is on its way. I guess those magic pencils got hung up in those big old fluffy clouds.

(Tutorial 4: February 22, 1990)

In Tutorials 1 to 4, Cindy's Wizard letters included a high percentage of each of the three elements of the model. During these sessions, Cindy also developed her own way of writing as the Wizard and responding to the children. Cindy included Element 1 by describing a Wizard who lived in the stars and the moon, played galaxy games, and had some magical powers. She included Elements 2 and 3 by representing the Wizard as an interested and responsive writing partner. She accomplished this by echoing the children's words and phrases and adding her own words of encouragement.

In Tutorial 5, the tutor introduced a printed agenda, organizing the sequence and structure of the tutorial, in an effort to help Cindy maintain the Wizard writing activity, develop her own voice as the Wizard, and balance the amount of guidance and assistance the tutor offered. The agenda was based on Cindy's activities and accomplishment during previous tutorials and included the tutor's suggestions, reminders, and questions about Wizard writing. In the previous sessions, Cindy relied on the tutor to initiate the tutorial activities and seemed to need the tutor's direct help in order to complete the task. The agenda was a less personalized way of offering
Cindy assistance. In addition, the agenda offered a kind of external support that would potentially help Cindy continue Wizard writing even when the tutor was not present.

**Writing as the Wizard: Tutorials 5 to 12**

In Tutorials 5 to 12, Cindy focused on completing the items on the agenda and displayed confidence in her ability to do so. Cindy reviewed the agenda before each tutorial, commented on the number of activities in the afternoon's tutorial, and checked off the activities as she completed them. She did not rely on the tutor to explicitly guide her through the writing activity, although she occasionally asked the tutor or her co-worker for help in describing the Wizard and the Fifth Dimension. During these tutorials, the tutor continued to offer encouragement and support.

In Tutorials 5 through 12, Cindy wrote individual messages to the children in her computer club group. These messages continued the writing routine established during Weeks 1 through 5. Cindy included Element 1 by representing the Wizard with words such as galaxy, moon, and stars. She included Element 2 by echoing the child's words and phrases, and offering words of encouragement and support. She occasionally included Element 3, requesting a response, by asking the child to write a message in return.

Yes Tina,

I am glad that you are okay. And yes, I like you so very much, also.
And you said that you like Mario Brothers. I like that game also.

The Wizard
(Tutorial 7: March 22, 1990)

Dear William,

I am the Wizard and maybe I am human and maybe I am not. And we also have problems here in the galaxy. Maybe not as bad, but fun. And maybe one day I can come and visit you at Grandma's house.

The Wizard
(Tutorial 8: March 29, 1990)
Cindy's letters illustrate the ways in which she blended her own image of the Wizard and the letter writing activity with the elements of the model.

**Interview 2 and The Reconstruction of the Wizard-Writing Activity**

Cindy's responses to the questions in Interview 2 illustrate how her understanding of the Wizard's relationship with the children had changed during the twelve tutorial sessions. In response to the first question, Cindy described her vision of the Wizard as "so many different things. Because the kids give you so many different things of what they think the Wizard is" (May 31, 1990). Cindy's letters to the children reflected this kind of responsiveness, and defined the way she reconstructed the first element of the model. When Cindy wrote to the children, she represented the Wizard as a personal friend, a gift-giving equivalent to Santa Claus, the Tooth Fairy, or a heavenly being.

Hi Mark,
You also said that you would like to be an artist. We have great painters up here...So maybe I can send you one of my magical pencils. Maybe that will help you out a little. Please let me know if my pencil will help you out.
The Wizard
(Tutorial 12: May 31, 1990)

Well William,
My name is the Wizard. I can be anybody that you would like for me to be. I can be your teacher, your brother, your friend. I can be anyone. I live way up there in the galaxy. Something like where you live but a little different. We don't have cars, we have flying machines. And we don't walk on the sidewalk, we walk on the clouds. Well, William, please write back and tell me more.
The Wizard.
(Tutorial 2: February 1, 1990)

Hello Robert,
I hear from a friend that you are missing a few of your teeth. So I know that you will be wishing on the big bright star for the Wizard.
[no signature]
(Tutorial 7: March 22, 1990)
Quentin,

Your teacher Cindy told me that you lost your grandmother. I am so sorry to hear that, but you know that she is up here around the clouds with me and you know that I am going to take good care of her.

the Wizard

(Tutorial 7: March 22, 1990)

Throughout the tutorials, Cindy maintained her own image of the Wizard, even though it differed from the Wizard she described in her letters to the children. "I still think he is a man with a big hat, funny shoes, and a long robe" (May 31, 1990). Her reconstruction of Element 1 of the model was affected by her image of the Wizard and influenced and enriched by the children's images, ideas, and questions.

The second question asked Cindy what the Wizard says to children. Cindy responded:

The Wizard tells them what he does in the clouds, what he drinks, what he eats, what he wears... [He] lets them know that he is their friend and if there is anything that they want to tell the Wizard, they can tell the Wizard...He's there for them (May 31, 1990).

Her response suggested that throughout the tutorials galaxy language remained an integral part of the Wizard writing. In addition, Cindy's response illustrated that by regularly exchanging letters the children had developed a friendly and trusting relationship with the Wizard. Cindy continued this relationship, and reconstructed Element 2 of the model, by rephrasing or echoing the children's words, answering their questions about the Wizard, and asking the children a question about computer club games and activities.

Hello Robert,

I am doing very well. So you would like to know what is up here in the galaxy? Well, it is the star, the moon, the clouds, and lots of love and happiness. So tell me about the things that you have been doing. Have you been playing new games? Let me know. I get kind of sad up here in the galaxy with nothing to do. Your Friend, The Wizard

(Tutorial 4: February 22, 1990)
Cindy's response to the final interview question described what the Wizard could do by writing to children. "The Wizard can help them with their problems. The Wizard can encourage them to do different things because they seem to want to do what the Wizard asks them to do" (May 31, 1990). Cindy's reconstruction of the model included encouraging the children to work hard, stay in school, and get a good job.

Hi John,

Boy, do I wish I had a son like you. You want 80 jobs. Boy, John, why so many? I know that you want things. You said that you want to help your mother. But John, please don't try and work so many jobs. Just finish high school, go to college, and get a good degree and get you just one good job! John, you can do it. Just keep on doing your best.

The Wizard
(Tutorial 6: March, 15, 1990)

Cindy did not continue writing Wizard letters during the independent writing sessions. During this period she was on her personal leave from her job at the community center.

Case Study of Group Worker IV: Louise

Louise was acutely aware of the educational needs of the children in her computer club group. During computer club, Louise sought out educational and instructional software programs and helped them play these games in an effort to help the children improve their reading, writing, math, and geography skills. For Louise, an important part of the children's computer club activities was their correspondence with a group of children in a similar after-school computer club at a Velham site in San Diego. Louise felt that this kind of correspondence would help the children improve their reading, writing, and computer-related skills. During the tutorials, she worked hard to coordinate and facilitate the children's intersite correspondence.

Of all the group workers, Louise was the most challenged and motivated to master the mechanics of the computer hardware and software. Her mechanical skills and strong computer-related instincts surfaced when the group workers and the
Erikson Institute literacy staff assembled the computers at the community center. Louise became the person that her co-workers relied on when technical problems arose with the computers and the telecommunications system.

During year one of the computer club project, February through June 1989, Louise helped the literacy staff set up the telecommunications system linking the community center to the other sites in the Velham Project. As a result of her efforts, Louise was the first group worker to use this system to write and send a message to the researchers and staff at the other sites in the Velham Project. When she participated in the pre-study tutorials on telecommunications she learned the commands and procedures for sending and receiving messages and corresponded on a regular basis with researchers at the Velham site at the University of California at San Diego. During the Wizard writing tutorials, Louise frequently spent additional time at the community center in order to use the telecommunications system to correspond with staff at the San Diego site of the Velham Project, send the children's "pen pal" messages, and scan the telecommunications system for responses.

In spite of the fact that Louise was more familiar with Wizard writing than her tutor, the tutorials and the tutor's supportive presence provided her with a framework for the Wizard-writing activity. The tutor's fieldnotes report that Louise occasionally asked the tutor to help her think of "Wizardly" words and phrases to include in her letters, even though she did not rely on the tutor for help sequencing the tutorial activities or sustaining a written dialogue with the children.

Interview 1

Louise's responses to Interview 1 provided baseline information about her image of the Wizard, what the Wizard would say, and what the Wizard could accomplish by writing to the children. The first question asked Louise to describe her image of the Wizard: "The Wizard is the kind of fantasy figure that I normally see on
TV, with a big long hat, with the moon and stars and everything and it's always a very wise person. It knows every topic and every thing" (January 24, 1990).

The second question asked Louise to describe the kinds of things the Wizard says while writing to children. According to Louise,

When we were introduced to it [the Wizard],...they [Erikson Institute literacy staff] had all these fancy words and they had to explain them to us in the normal language. Like "post haste" means right away. To me, the Wizard talks normal language so everyone can understand it. So that's the way I talk (January 24, 1990).

Louise's response suggested that she was not planning to use galaxy language in her Wizard letters.

The third question asked Louise what the Wizard could do by writing to the children. Louise responded that the Wizard could help the children because "he can see them and he knows what they're doing...he just knows the child" (January 24, 1990).

Writing as the Wizard: Tutorials 1 through 12

Louise approached each tutorial with a sense of purpose and direction. She knew which children were waiting for a response from the Wizard, which children needed to be urged to write, as well as the kind of support, encouragement, or advice she wanted the Wizard to give each child.

In her first Wizard letter, Louise included the three elements of the model. She included Element 1 by describing the Wizard as an apologetic, but loyal correspondent, who now had help answering all the mail in the world. In spite of her initial rejection of galaxy language, Louise used the word "post haste" to describe how she would respond to the children's letters now that she was writing as the Wizard. "Post haste" was a word that appeared in the first Wizard letter written to the children in February 1989, and it became one of the enduring favorite phrases that the Erikson Institute
literacy staff and the group workers included in their Wizard letters over time. Louise included Elements 2 and 3 by referring to the Wizard's previous relationship with the children, and requesting new information and ideas.

Dear Care Bears,

I have missed all of you and your wonderful letters. I understood that most of you are very upset with me because I have not been responding to your Wizard letters post haste the way that I should. I don't mean to make excuses, but I have been terribly busy. In fact, I'm so busy communicating with children all over the world that I, the Wizard, had to hire a few Wizard assistants to help me with all of the mail that I have been receiving. So now I will be able to answer everyone's letters post haste, the way I like to receive them.

Now I need some new information about my friends in the Fifth Dimension. Share with me some of your ideas I'm outta here!!!!!!

Wizardly Waiting
(Tutorial 1: January 24, 1990)

In her second tutorial, Louise included the three elements of the model in her Wizard letter. She included Element 1 by describing the kind of grades the children would receive from the Wizard, if they lived in the Fifth Dimension. She included Element 2 by referring to the children's school activities, and reminding them about their upcoming report cards. In her message, Louise assured the children of the Wizard's support and affection, regardless of what their grades were. She included Element 3 by asking the children to write back.

Dear Care Bears,

How is everybody doing? Are you guys and gals getting nervous? I hear it's getting closer and closer to report card time. Well, don't worry because in my book you all earned triple stars. Wow, that's good. I'm outta here. Write to me and let me know what's going on in your galaxy.

The ever caring Wizard
(Tutorial 2: January 31, 1990)

During the tutorials, Louise's Wizard letters to the children in her computer club group combined the elements of the model with her goals for the writing activity and her feelings toward the children. She described the Wizard and life in the Fifth
Dimension, urged the children to work hard in school, and reminded them to respect their peers, teachers, and the Wizard.

In the following excerpt, Louise reminded the children that the Wizard lived in the Fifth Dimension, in accordance with Element 1 of the model, and then expanded on that image by describing the Wizard's appearance.

I will tell you a few things about myself. As you know, I live in the Fifth Dimension. I wear long and glittery robes. My hair is long and woolly and full of stars. I like to sleep on the clouds, except when it rains.
(Tutorial 2: January 31, 1990)

Some of the children in Louise's computer club wrote to the Wizard in an effort to uncover the fantasy figure's true identity and gender. Louise responded in a way that addressed the children's questions, while maintaining the mystery and fantasy that surrounded the Wizard. She also emphasized the importance of respecting a friend's trust and confidence.

Dear Tamika,

I see that you are very persistent. I tried to answer your question to the best of my ability. I am not allowed to reveal my identity to you or I will lose my powers as a Wizard. I know that you don't want me to lose my power, do you? I don't want you to lose your patience with me. Try to understand that as a Wizard I must keep some things a secret. I will tell you that I am whoever you see me as. Also, did you make a promise not to tell the secret you are willing to share with me. I hope you are not going to break your promise.

Wizardly speaking, I still love you
(Tutorial 5: March 7, 1990)

Louise maintained an ongoing dialogue with the children in her computer club group, and included Element 2 of the model, by addressing the wide range of topics that characterized her relationship with the children in the after-school program. In these Wizard letters, Louise offered the children advice that she thought would help them develop the skills and attitudes they needed to succeed in school, and advised them about their relationships with teachers and parents, their peers, and the Wizard.
When Louise wrote to the children about their grades, she applauded their success, or urged them to work harder and improve their grades. In the following message, she praised the children who did well and asked them to help "other friends in the galaxy" improve their grades:

I'm so proud of you girls. I hear you all have great report cards. Some of you are on the honor roll at school. Keep up the good work. Maybe you girls can tell me how you get such good grades so that I may be able to share it with other friends in the galaxy who are having trouble with their grades. Tell me your Wizardly secret.

the Wizard
(Tutorial 3: February 7, 1990)

In the following letter, Louise inquired about Carrie's school work. She assured her of the Wizard's approval, encouraged her to work harder, and offered the Wizard's help.

Dear Carrie,

My, I am glad to hear from you. Yes, I have many computers, that is how I keep up with you and the community center crew. How are you doing in school? I know you are an "A" student in my book. I'm sure you can do better in school if you try a little harder. You can always depend on the Wizard for help.

The Wizard
(Tutorial 3: February 7, 1990)

In the next letter, Louise tried to helped Kenesha find an appropriate outlet for her anger and frustration. Louise stressed the importance of respecting adults, acknowledged the child's anger, and suggested a strategy for coping with these strong feelings.

Dear Kenesha,

You have to exercise a little self control. You shouldn't talk back to grown ups who are trying to show you right from wrong. I know sometimes grown-ups can make you mad. I sometimes get mad, too. But what I do is write it down on paper just how or what I am feeling. Maybe you can try that for a while and see how it works. Good luck and let me know how it works.

The Wizard
(Tutorial 3: February 7, 1990)
Occasionally, Louise reprimanded the children in her computer club group for, what
she considered, inappropriate and disrespectful behavior toward the Wizard and their
pen pals.

Dear Care Bears,

How are you girls and boys doing? I hope that a few of you had time to
cool off. And you know who I am talking to. I am not a Wizard meanie, I am
a Wizard sweetie. I am sorry if Alice's feelings are hurt, or anyone else. Your
feelings should not be hurt if someone writes you a short letter. Have you ever
heard that good things come in small packages? I think you should concentrate
more on what's in the letter, not on the length of the letter.

The Sweetie Wizard

(Tutorial 8: March 28, 1990)

In some of her messages, Louise wrote to the children about their computer
club activities, including their game playing and their communications with the San
Diego Velham site. In the following Wizard letter, Louise asked the children about
two computer games that they were learning to play, Odell Lake and Mystery House;
told them about the "hints" she had received from the Velham site in San Diego; and
asked them to write the Wizard with their own ideas about the games.

I was reading through my galactic mail and ran across the hints you
received from your pen pals in California for Mystery House and Odell Lake.
Have any of you tried them out yet or have you come up with any hints of your
own? Please let me know.

(Tutorial 7: March 21, 1990)

She also acknowledged the children's computer-related activities and asked them to
share their successful strategies.

Hey Robert and Brian!!!
I hear that you and Brian spent a lot of time on Oregon Trail. Can you
tell me some of your clues on how to survive.

(Tutorial 3: February 7, 1990)

During the tutorials, Louise tried to establish the Wizard as a supportive,
understanding, and authoritative adult writing partner. The topics she chose, and the
words and phrases she used in her Wizard letters illustrated the way that she combined her identity as a group worker with her image of the Wizard.

**Interview 2**

In response to the first question of Interview 2, Louise described the Wizard as "a friend to communicate with all the time" (May 7, 1990). During the tutorials, her image of the Wizard changed from the standardized image of a fantasy figure portrayed in popular cartoons and fairy tales, to a more personalized image of the Wizard.

In response to the second question of Interview 2, Louise said that the Wizard used "fun words like 'post haste', 'stars', and 'moons' " in letters to the children (May 7, 1990). Her response illustrates that during the tutorials her letters included words and phrases that resembled the galaxy language of the model.

In response to the third question of Interview 2, Louise said that writing to the Wizard motivated the children to read, write, and communicate with different writing partners (May 7, 1990).

**The Reconstruction of the Wizard-Writing Activity**

Louise reconstructed the model for a Wizard letter by emphasizing Element 2, continuing a dialogue with the children. Throughout the tutorials and independent writing sessions, this element was fully present in the letters she wrote to the children. In these Wizard letters, Louise established the Wizard as a supportive, understanding, and authoritative adult writing partner by addressing the wide range of topics that characterized her relationship with the children in the after-school program. In her Wizard letters, Louise offered the children advice that she thought would help them develop the skills and attitudes they needed to succeed in school, and advised them about their relationships with teachers and parents, their peers, and the Wizard.
The following excerpt illustrates the way that Louise reconstructed Element 2 in order to express her concern for the children's school performance.

Now, one of my Wizard assistants tells me that you are not doing so well in school. Maybe you need to cut some of your fun energy and use some of your learning energy to do better in school. If you have any problems, why don't you write to me for help. I will be glad to share my Wizardly energy with you.

(Tutorial 2: January 31, 1990)

Louise reconstructed Element 1, representing of the Wizard, by writing letters that resembled the model. In these Wizard letters, she described the Wizard and life in the Fifth Dimension with the kind of words and phrases that corresponded to the model.

What kind of shoes did you get? Do they look like the shoes we here in the Fifth Dimension wear? Do they have shining little stars and moons on them? Did you know that when we sleep our shoes twinkle and light up the sky? If you ever have trouble sleeping at night, gaze out your window and you will see our shoes shining [their] glow down on you.

(Tutorial 4: February 21, 1990)

In other Wizard letters, the presence of Element 1 was closely linked to Louise's reconstruction of Element 2. Louise reconstructed Element 1 by using galaxy language to offer the children advice about their school performance and their relationships with their pen pals and the Wizard. The following excerpts from Louise's Wizard letters illustrate how she accomplished this reconstruction of the elements.

I was glad to know you received such good grades on your report card. I work in this lab full of Wizard assistants and macromillions of computers.

(Tutorial 4: February 21, 1990)

I hear you all have pen pals in San Diego. I've gotten a few letters from San Diego, too. I think that it is just great, the way we all communicate from galaxy to galaxy.

Moonfully yours, the Wizard

(Tutorial 6: March 14, 1990)

By the way, don't feel bad about yelling. Your voice would have to travel through the galaxies of stars and clouds to reach me. So to me it
sounded like a whisper. It doesn't mean that I didn't feel your anger. I'm glad we're on the same team because I feel sorry for anyone who get you mad.

Later...
(Tutorial 2: January 31, 1990)

During the tutorials and independent writing session, Louise reconstructed the model for a Wizard letter as a way of enriching and expanding the close relationship she had with the children in her computer club group.
Chapter 5
DISCUSSION OF THE FINDINGS

The Group Workers' Reconstruction of the Model for a Wizard Letter

In this study, the group workers' reconstruction of the writing activity was characterized more by similarities to, rather than differences from, the model for a Wizard letter. Their reconstructions did not reflect radical changes in the Wizard writing activity. The group workers' creativity, however, was reflected in the personalized Wizard voice each woman developed in the letters she wrote to the children in her computer club group.

The analysis of the data, and the data presented in the case studies, suggests that during the tutorials and independent writing sessions the group workers reconstructed the model for a Wizard letter in two ways. In the first phase of their reconstruction, the group workers wrote Wizard letters that resembled those written by the Erikson Institute literacy staff and the university students and researchers at other Velham sites. The group workers accomplished this by including a high percentage of the elements of the model in their letters. In the second phase of their reconstruction of the model, the group workers' letters showed that they emphasized and expanded on the meaning of some elements, while their use of other elements declined. These Wizard letters were more individualized reflecting the group workers' creativity as they developed a personal voice for writing as the Wizard.

This perspective on reconstruction is supported by Rogoff's (1990) description of the ways in which a novice transforms, adapts, and changes an activity for her own uses and purposes. During interactions with an expert, a novice appropriates elements
of an external model for a task and portions of the shared activity for further investigation. The novice reconstructs the task by blending the appropriated portion of the model with her personal reasons and purposes for participating in and using the activity. The novice's reconstruction is also influenced by the ways in which other members of her community and culture use the activity. This perspective illustrates the creative aspects of a novice's reconstruction of an activity, particularly the way she appropriates and blends portions of an external model and the shared interaction into her cultural and personal uses and purposes for the activity.

There are four findings that address the ways in which the group workers reconstructed the model for a Wizard letter:

1. The group workers' reconstruction of the model included elements of the model.

2. All of the group workers reconstructed the model by emphasizing Element 2, continuing a dialogue with the children in their computer club group.

3. The way a group worker reconstructed the model was a personal expression of her voice in writing.

4. The way group workers reconstructed the model was consistent with the ways that language and literacy are used by other members of their community and cultural group.

Finding 1: The group workers' reconstruction of the model included elements of the model. When the Wizard letters that the group workers wrote in Weeks 1 to 16 of the tutorials and the independent writing sessions were analyzed, the data showed that each group worker included a high percentage of the elements of the model in at least one four-week period of the tutorials, thereby demonstrating her ability to write Wizard letters that resembled the model. The analysis also showed at what point each group worker included the highest percentage of the elements, and how long she sustained the elements at this level.
Group Worker I: An analysis of Mary's Wizard letters showed that there was a gradual increase in the presence of the elements of the model during Weeks 1 to 12 of the tutorials. In Weeks 9 to 12 of the tutorials, Mary's Wizard letters included a high percentage of the elements and closely resembled the letters written by the Erikson Institute literacy staff, university students, and researchers at other sites in the Velham Project. During this time frame, Element 1, representing the Wizard, was present 91% of the time, while Elements 2 and 3 were fully present. During the independent writing sessions, Element 2, continuing a dialogue with the children, continued to be fully present and Element 3, requesting a response, was present in three-quarters of Mary's letters. In contrast, Element 1 declined to it lowest point, and was present in 13% of Mary's Wizard letters (See Table 4, p. 57).

Group Worker II: An analysis of Jackie's Wizard letters showed that there was some variation in the presence of the elements in Jackie's Wizard letters. During the tutorials and independent writing sessions, Element 2 was fully present and Element 3 was present in approximately three-quarters of the letters. However, during the independent writing sessions, the presence of Element 1 declined substantially. In these sessions, Element 1 was present in less than 10% of Jackie's Wizard letters. The highest percentage of elements of the model appeared during Weeks 5 to 8 of the tutorials. During this time frame, Element 2, continuing a dialogue with the children, was fully present and Element 3, requesting a response, was present in three-quarters of the letters. However, Element 1 was present in less than half of Jackie's Wizard letters (See Table 5, p. 58).

Group Worker III: An analysis of Cindy's Wizard letters showed that she included the highest percentage of the elements of the model during Weeks 1 to 4 of the tutorials. In this time frame, Element 1, representing the Wizard, and Element 3, requesting a response, were fully present. Element 2, beginning and continuing a dialogue, was present 89% of the time. In the remaining tutorials, Element 2 continued
to be fully present. In contrast, Elements 1 and 3 were present in approximately half of Cindy's Wizard letters. Cindy did not write Wizard letters during the independent writing sessions (See Table 6, p. 58).

Group Worker IV: An analysis of Louise's Wizard letters showed that she included the highest percentage of the elements of the model in Weeks 1 to 4 of the tutorials. In this time frame, Element 2, beginning and continuing a dialogue, and Element 3, requesting a response, were fully present. Element 1, representing the Wizard, was present in two-thirds of her letters. In the remaining tutorials and independent writing sessions, Element 2 continued to be fully present. In this same period, Element 3 was present in two-thirds to three-quarters of Louise's Wizard letters. In contrast, Element 1 was present in one-third of Louise's Wizard letters (See Table 7, p. 59).

Finding 1 illustrates that the group workers reconstructed the Wizard writing activity by approximating the model for a Wizard letter. This kind of reconstruction is suggested by the high percentage of elements of the model in the group workers' letters. An explanation for reconstruction that is similar to the external model can be found in Vygotsky's (1978; Wertsch, 1985) theory of development where he identified two planes of development, the social and the psychological. On the social plane, a novice participates in interactions and activities that are initially beyond her level of independent functioning with the assistance of an expert. Gradually, aspects of this shared interaction become part of the novice's higher mental functions. Although Vygotsky (1985) did not identify the processes that accompany the transfer of social interactions to the intrapsychological plane, he did specify that this transfer is accompanied by a transformation of social processes as well as changes in the structure and function of the activity.

Rogoff (1990) offered an explanation of the complex processes that accompany the transfer of shared activities to the novice's intrapsychological plane. Rogoff
contends that in order "to act and communicate, individuals are constantly involved in exchanges that blend 'internal' and 'external'....The boundaries' between people who are in communication are already permeated; it is impossible to say...'whose' a collaborative idea is" (p. 195). This emphasis on the blending of external and internal processes is of particular importance when examining the group workers' reconstruction of the model for a Wizard letter. In their reconstruction of the model, the group workers blended their ideas about Wizard writing with the elements of the model in a way that resulted in Wizard letters resembling the letters written by the Erikson Institute literacy staff, university students, and researchers in the Velham Project.

The group workers' case studies describe the conversational format of the tutorials and provide detailed examples of the ongoing dialogue between the group workers and the tutors during the Wizard-writing activity. These conversational sequences from the transcribed audio tapes illustrate how the group workers blended their ideas about Wizard writing with the elements of the model.

The analysis of the elements of the model also illustrates changes in the presence and stability of the elements and suggests which portions of the model each group worker paid attention to and appropriated for further investigation. In addition to illustrating the individual changes in the way each group worker included the elements of the model, the findings also suggest patterns that emerged among the four group workers as to which elements of the model they included, expanded, and changed.

Finding 2: All of the group workers reconstructed the model by emphasizing Element 2, beginning and continuing a dialogue with the children. By definition, Element 2 was present when the adult writing as the Wizard connected the fantasy life of the Fifth Dimension and the child's life by finding topics for communications that were interesting and meaningful to the child. According to the model, these topics
included school events, after-school activities at the community center, television programs, movies, music, major sporting events, or sports heroes that were of interest to most of the children.

Each of the group workers welcomed the opportunity provided by the Wizard writing activity to further build on their relationships with the children attending the after-school program at the community center. In many cases, the group workers monitored the children's in-school achievement, understood the kinds of support and assistance the children needed, and sometimes shared the children's interests in sports and music. The group workers' Wizard letters suggest that these topics were the basis for beginning and continuing a dialogue with the children.

Group Worker I: In response to Interview 2, Mary said that what the Wizard writes "depends on the letters the children send us and how we answer." According to Mary, the Wizard could "go into their [the children's] wildest minds. [The Wizard could] pull out things I don't think a child ever talked about to anyone....sometimes the Wizard might have to get a little serious" (May 1, 1990). The following excerpt from a Wizard letter illustrates Mary's response to such a serious issue. "Your friend needs your help....Tell her why it is so important for us not to take things that do not belong to us and what might happen if she keeps it up" (Week 15: June 1, 1990).

Group Worker II: In response to Interview 2, Jackie said that the Wizard "catches you [the children] off guard and lets you know there is a Wizard" (May 29, 1990). Jackie used this strategy to try to resolve a conflict between two boys in her computer club group. "Hey, I saw through my Wizard eyes that a couple of my fellows were about to get into serious trouble" (Tutorial 2: January 30, 1990). In a letter Jackie wrote to colleagues at other sites in the Velham Project she also described the Wizard as "a friend to the end...someone to lean on if they [the children] just need to talk" (Tutorial 12: May 22, 1990).
Group Worker III: In response to Interview 2, Cindy said that the Wizard "lets them [the children] know that he is their friend and if there is anything they want to tell the Wizard, he is there for them" (May 31, 1990). Cindy developed a formula for responding to messages that helped sustain the dialogue between the Wizard and the children. In her Wizard letters, Cindy echoed the children's words and phrases and offered words of encouragement. "I am so glad you want to be a nurse because there is so much sickness in the world" (Tutorial 2: February 1, 1990).

Group Worker IV: In response to Interview 2, Louise said that the Wizard "can see them [the children] and he knows what they are doing...he just knows the child" (May 7, 1990). Louise sustained the Wizard's dialogue with the children by writing about a wide range of topics. Her Wizard letters frequently included references to the children's school performance. Louise also gave the children advice concerning their relationships with teachers and parents, peers and pen pals, and the Wizard. In addition, Louise encouraged the children to respect themselves and each other.

The full presence of Element 2 in the group workers' letters illustrated one of the ways that the group workers arranged zones of proximal development to support the children's literacy development (Vygotsky, 1978; McLane, 1987; Gundlach et al. 1985; Cole and Griffin, 1983; McLane and McNamee, 1990). By including Element 2 and continuing a dialogue with the children, the group workers established the Wizard as a responsive and reliable writing partner who engaged the children in ongoing conversations that were understandable and relevant to them. The group workers wrote about rap music and sports heroes in order to pull the children into a continuing written dialogue.

The group workers' Wizard letters demonstrated the reciprocal nature of a dialogue. When the group workers responded as the Wizard, they accepted the children's writing, including their choice of words and phrases, and the topics they wrote about in their messages (McLane, 1990). This was evident in the way that the
group workers echoed and repeated portions of the children's letters. The responsive quality of their Wizard letters was illustrated by the ways that the group workers answered questions and provided information about the Wizard and life in the Fifth Dimension. In return, they asked the children to tell the Wizard about their school performance and computer club activities. The group workers established the Wizard as a reliable writing partner by responding to the children's messages, regardless of the topic.

In keeping with the rationale for being part of a community of writers, Wizard writing introduced the children, and the group workers, to new reasons and purposes for writing, different ways of writing, and new writing partners (Gundlach, 1983; Gundlach et al., 1985; McLane, 1990; McNamee, 1990). By writing Wizard letters and emphasizing Element 2 of the model, the group workers provided the children in the after-school program with the opportunity to use writing in order to continue an important relationship.

Finding 3: The way a group worker reconstructed the model is a personal expression of her voice in writing. In analyzing each group worker's Wizard letters and her responses to the two interviews, it became evident that each woman developed a unique way of including Elements 1 and 2 in her Wizard letters. Their individual reconstructions of the model and the emergence of each new Wizard voice was reflected in the words and phrases the group worker used when she wrote Wizard letters; the topics she emphasized in her Wizard letters to the children; her image the Wizard; and the way that her image of the fantasy figure affected the role the Wizard assumed in regulating the children's computer club activities and interactions in supporting their literacy development.

Group Worker I, Mary, developed a kind, supportive, and dependable Wizard voice. She included the children in her constellation of friends, shared her goals with the children, and always responded to their messages, whether the content was playful
or serious. "My family...is all the stars, the wind, the galaxy, you, and all my wonderful friends" (February 1, 1990).

Group Worker II, Jackie, expressed her strong feelings for the children in her Wizard letters. In some messages, she gently supported and encouraged the children, whereas in other letters, she adopted an authoritative approach to motivate them to write to the Wizard or work harder in school. Jackie displayed her unique sense of fantasy when she invented a daughter for the Wizard. Jackie portrayed Venus, the Wizard's daughter, as a lazy child who did not work hard enough in school and described the Wizard as a frustrated parent. In the final tutorial session Jackie wrote a letter from Venus, thereby assuming a new and unexpected voice in writing.

Group Worker III: Cindy's voice as the Wizard emerged in response to the content of the children's messages. Her voice as the Wizard was a combination of fantasy figures, including Santa Claus, the Tooth Fairy, or a heavenly being. Cindy's response to Interview 2 demonstrated that throughout the tutorials she maintained her own image of the Wizard. "I still think he is a man with a big hat, funny shoes, and a long robe" (May 31, 1990). Regardless of which Wizard identity Cindy assumed, her voice in writing was always kind, supportive, and most of all, responsive to the children. "My name is the Wizard. I can be anybody you would like for me to be" (Tutorial 2: February 1, 1990).

Group Worker IV's voice as the Wizard also expressed the strong feelings she had for the children. During the tutorials, Louise exchanged a series of personal messages with several of the children in her computer club group. In these letters, Louise addressed the mystery of the Wizard's gender, an individual's right to privacy, and the importance of finding a way to express anger and frustration while respecting the feelings of peers and adults. In addition, Louise developed her own way of using galaxy language to express her concern about the children's school achievement. "Are
you guys and gals getting nervous? I hear it's getting closer to report card time. Well, don't worry because in my book you all earned triple stars. Wow, that's good" (Tutorial 2: January 31, 1990).

The unique voice that a group worker assumed when writing as the Wizard emerged from the particular way she reconstructed the writing activity. Findings 1 and 2 describe the similarities in the ways in which the group workers reconstructed the model for a Wizard letter. Finding 3 suggests that there were also subtle differences that characterized each group worker's reconstruction of the model. These subtle differences represented the unique Wizard voice each group worker assumed in the letters she wrote to the children.

The group worker's reconstruction of the model for a Wizard letter included a process of appropriating portions from the model for further investigation and blending these appropriated aspects with her own reasons and purposes for Wizard writing; her conversations with the tutor; her written communications with university students and researchers in the Velham Project; and her close personal relationships with the children in her computer club group (Rogoff, 1990). Each group workers' reconstruction of the model was also a creative process. Each group worker used unique words and phrases to convey her personal image of the Wizard. Throughout the tutorials, the model for a Wizard letter provided the group workers with a "stepping stone, guiding the path taken, but not determining it" (Rogoff, 1990, p. 197). The group worker's process of appropriation and blending contributed to her reconstruction of the model and influenced the unique and personal voice each group worker assumed while writing as the Wizard.

Finding 4: The way the group workers reconstructed the model was consistent with the ways that others in their community and cultural group use language and literacy. While reading and coding the group workers' Wizard letters, the researcher identified the presence and reoccurrence of six additional elements that added to the
group workers' reconstruction of the Wizard letter model. The six additional elements were:

1. The Wizard indicates being upset with the children.
2. The adult uses rhyming words to represent the Wizard.
3. The Wizard gives the children advice about computer club, school, friends and family.
4. The Wizard encourages the children to work hard in school.
5. The Wizard indicates the importance and value of school success.
6. The Wizard asks the children for help.

The subset of the group workers' letters that were examined by the two outside coders to check the reliability of the Wizard letter-coding system, were also examined for the presence of additional elements. Neither of the outside coders found any additional elements beyond the three original elements or the six additional elements identified above.

There was overall agreement between the outside coders about the presence of the three original Wizard letter elements in the group workers' letters, thus confirming the reliability of researcher's coding scheme. Their responses in this coding process also indicated that the additional elements did not mark a significant change in the group workers' reconstruction of the model. Instead, the additional elements represented the group workers' individual differences in writing style and emphasis in their letters from time to time.

An unexpected and interesting pattern emerged in their coding that reflected the difference in the coders' cultural and linguistic backgrounds. As noted in Chapter 3, Coder 2 was of the same ethnic and educational background as the group workers. In most instances, Coder 2 noticed the presence of an element that was not evident to Coder 1. In particular, Coder 2 noticed the
presence of rhythm and rhyming words in some of the Wizard letters and the
additional elements relating to the Wizard's advice about attitudes and behavior in
school, computer club, and home. Her responses to the presence of the
additional elements suggests that ethnicity and educational background
contributed to her ability to identify and pay attention to important words,
phrases, and intentions in the group workers' letters that were missed by Coder 1.
Although the particular words and phrases that the group workers chose to
convey their image of the Wizard and the topics they included in their letters
represent the unique voices they developed during the writing activity, these
characteristics also suggest a cultural reconstruction of the writing activity. The
following examples describe these aspects of the group workers' cultural
reconstruction of the model.

Group Worker I: When Mary wrote as the Wizard, she liked to use
rhyming words from her favorite nursery rhymes in place of the galaxy language
from the model. During the tutorials, words such as "afraid" and "decade" came
to represent Mary's version of galaxy language. The presence of rhyming words
and this rhythmic use of language was noticed by Coder 2 and represents one
aspect of Mary's cultural reconstruction of the model.

There were similarities among Group Workers II, III, and IV in the topics
they addressed in their Wizard letters. Jackie, Cindy, and Louise expressed their
concern about the children's school performance, offered advice about personal
and educational issues, and encouraged the children to respect themselves and
each other. Coder 2 noted the presence of these topics in the subset of Wizard
letters coded.

Group Worker II, Jackie, believed that she could help the children
succeed in school by supporting their literacy development, and viewed Wizard
writing as another way to help the children improve their reading, writing, and
their academic achievement. When Jackie addressed personal and educational issues with the children, the Wizard assumed the role of teacher, advocate, and friend.

In response to the third question of Interview 2, Jackie described what the Wizard could do by writing to the children.

The Wizard can help the children build self-esteem. The Wizard can make them want to work harder. If a child has a problem in school or bad grades the Wizard can zero in on it. The child will work harder because he wants to please the Wizard. The Wizard builds friendships. The Wizard is your personal friend (May 29, 1990).

Group Worker III, Cindy, encouraged the children to work hard, stay in school, and get a good job. Her response to the third question of Interview 2 described what she thought the Wizard could do by writing to the children. "The Wizard can help them with their problems. The Wizard can encourage them to do different things because they seem to want to do what the Wizard asks them to do" (May 31, 1990). The following excerpt from a Wizard letter illustrates how Cindy encouraged one child's educational goals. "Just finish high school, go to college, and get a good degree and get just one good job. John, you can do it. Just keep doing your best" (Tutorial 6: March, 15, 1990).

Group Worker IV: Louise was acutely aware of the educational needs of the children in her computer club group and expressed her concern about the children's school achievement in her Wizard letters. In some messages, she offered the children advice that she thought would help them develop the skills and attitudes they needed to succeed in school. When Louise wrote to the children about their grades she applauded their success or urged them to work harder and improve their grades. Louise stressed the importance of respecting adults, friends, and the Wizard. On one occasion, Louise, writing as the Wizard,
reprimanded the children in her computer club group for what she considered inappropriate and disrespectful behavior toward the Wizard and their pen pals.

Finding 4 suggests that the ways in which each group worker reconstructed the writing activity were consistent with the ways that others in her community and cultural group used language and literacy. The sociohistorical approach to literacy (Vygotsky, 1978; Cole and Griffin, 1983; McLane and McNamee, 1990) assumes that there are cultural variations in reasons and purposes for using reading and writing and defines literacy as a complex activity occurring within the framework of culturally relevant practices. The children participating in computer club at the community center attended the neighborhood public schools (McNamee, 1990). Many of them did not do well in the classroom or on standardized tests, and the group workers were concerned about this. The group workers joined the Velham Project, and introduced the Fifth Dimension computer club in their community, to support the children's literacy development and potentially improve their school performance. The group workers' references to school-related topics, which in some cases dominated their Wizard letters, were consistent with their goals for the project.

Cazden and Michaels' research (1988) supports the idea of a cultural reconstruction of a voice in writing by identifying differences in the narrative style, topics, and vocabulary of African American children during kindergarten show-and-tell time. In their study, African American outside coders were more likely to evaluate positively the features of the stories told by African American children than were Caucasian coders. Moreover, these African American adults were able to expand on what the children meant and make inferences about the meaning of their stories based on their own experiences. The responses of Coder 2 indicate the presence of similar cultural differences in narrative style, topics, and vocabulary in the group workers' Wizard letters. Her responses suggest that the group workers' reconstruction of the
model was affected by the way that their culture and community use language and literacy.

In summary, Finding 1 suggests that all of the group workers reconstructed the activity by writing Wizard letters that included a high percentage of elements of the model, and that resembled the Wizard letters written by others. Finding 2 suggests that all of the group workers reconstructed the model by emphasizing Element 2 and sustaining a written dialogue with the children. Finding 3 suggests that the way each group worker reconstructed the writing activity (through blending the elements of the model with her reasons and purposes for writing as the Wizard) contributed to the individual voice each group worker developed when writing as the Wizard. Finding 4 suggests that the ways the group workers reconstructed the model was consistent with the ways that others in their community and culture used language and literacy. The responses of an outside coder suggested that the group workers' words and phrases, and the topics they chose to continue a dialogue with the children, were recognized by another African American woman with a similar educational background.

The Construct of Help

During the tutorials, the tutors tried to provide support, guidance, and instruction that was compatible with, and contingent on, the group workers' needs as they undertook the Wizard-writing task, and gradually began the process of reconstructing the model. The analysis of the transcribed audio tapes, the tutors' fieldnotes, and the group workers' Wizard letters suggests three aspects of giving help that were relevant to the group workers' reconstruction of the Wizard writing task.

Aspect 1: Help From Within the Context of an Ongoing Relationship During the Task. The group worker's participation in informal interactions and
structured training sessions with the Erikson Institute literacy staff in the fifteen months prior to this study affected the way they wrote Wizard letters.

Aspect 2: Support and Assistance During the Task. All of the group workers needed some kind of help from the tutors while writing Wizard letters in the tutorials.

Aspect 3: The Absence of External Structure and Assistance During the Task. Three of the four group workers did not maintain the same level of Wizard writing during the independent writing sessions when the tutor was not present to help structure the Wizard writing activities and provide assistance if needed.

Aspect 1: Help From Within the Context of the Ongoing Relationship During the Task. The group workers' participation in informal interactions and structured training sessions with the Erikson Institute literacy staff in the fifteen months prior to this study affected the way they wrote Wizard letters during the tutorials. This aspect of help was evident in the group workers' responses to Interview 1, and the high percentage of the three elements of the model in their Wizard letters during Weeks 1 to 4 of the tutorials. These data suggest that their interactions with the Erikson Institute literacy staff during Year 1 of the computer club project and their communications with university students and researchers at other sites in the Velham Project influenced their ability to write Wizard letters that resembled the model.

During the first computer club session, February to June 1989, the group workers received assistance from various sources: they read Wizard letters written by the Erikson Institute literacy staff and adults at other Velham sites; occasionally they wrote letters to the Wizard and received responses; and they were familiar with the image of a wizard portrayed in popular cartoons and fairy tales. The presence of the elements of the model in the group workers' letters in Weeks 1 to 4 of the tutorials
suggests the effects these different means and sources of assistance had on their ability to write Wizard letters that resembled the model (See Table 8, p. 60).

The group workers' responses to Interview 1 illustrated that group workers approached the tutorials and Wizard writing with an image of the Wizard, ideas about what the Wizard could say to children, and an understanding of what the Wizard could accomplish by writing to the children. Their responses also illustrated similarities and differences in their approach to Wizard writing and suggest the way that their reconstruction of the model may have been influenced by their individual experiences.

Group Worker I, Mary, saw herself in the role of the Wizard. This image was the result of her unique experience writing to the Wizard, believing in the existence and power of this fantasy figure, and learning that the Wizard's letters came from friends and colleagues instead of originating from within the computer system. Group Workers II, III, and IV, Jackie, Cindy, and Louise described the physical appearance of the Wizard. They described the Wizard as a wise-looking man with a long beard and a pointed hat with stars and moons. Their images were influenced by popular cartoon figures and illustrations of other fantasy figures.

Group Workers I, II, and III, Mary, Jackie, and Cindy said that the Wizard used galaxy language when writing letters to children. Galaxy language was the term invented by the literacy staff, and adopted by the group workers, to describe the unusual words and phrases that could be part of the Wizard's vocabulary. Mary said that the Wizard used "galactic talk, talk of the stars and the galaxy" (Interview 1: January 18, 1990). Jackie said that the Wizard "talks about things that don't happen on earth" (Interview 1: January 18, 1990). Cindy said that the Wizard "talks about the galaxy" (Interview 1, January 18, 1990). Group Worker IV, Louise, had a different perspective on the Wizard's use of language. According to Louise, "...the Wizard [in] talks normal language so everyone can understand it. So that's the way I talk" (Interview 1: January 24, 1990).
The four group workers expressed similar ideas about what the Wizard could accomplish by writing to the children. All of the women saw that Wizard writing was an opportunity to support the children's writing development. Mary said that writing and receiving Wizard letters would get the children more "into writing" (Interview 1: January 18, 1990). Jackie said that the Wizard's letters could educate, encourage, and challenge the children. Cindy described the Wizard as a responsive writing partner who would tell the children what they wanted to know about the Wizard. Louise said that "the Wizard can see them [the children] and he knows how they're doing...and tries to support them" (Interview 1: January 18, 1990).

Although the Erikson Institute literacy staff modeled the strategies and interactions associated with Wizard writing during the fifteen months prior to the tutorials in Wizard writing, it was not possible to account for precisely what portions of these interactions and the letter writing activity were interesting and important to the group workers. These aspects of help are consistent with the novice's learning in a zone of proximal development and the concept of guided participation (Wood, Bruner, and Ross, 1976; McLane, 1987; Rogoff, 1990). A novice participates in an activity, with the support and guidance of an expert, before she is expected to deal with the activity on her own (LCHC, 1981). During these interactions, an expert scaffolds an activity for a novice by enlisting the novice's interest in the activity, managing portions of the task that are beyond the novice's independent ability, and demonstrating or modeling solutions to the task that may involve completing the task partially executed by the novice (Wood, Bruner, and Ross, 1976; McLane, 1987). During these interactions, the cognitive, social, and emotional interchanges between the novice and tutor encourage the novice to be a participant in her own development while she learns the skills necessary to the task, as well as ways to orchestrate her actions and thinking (Rogoff, 1990).
The group workers responses to Interview 1 and the high percentage of elements in their Wizard letters during Tutorials 1 to 4 suggest that the giving of help was embedded within a context of the group workers' ongoing relationship with the Erikson Institute literacy staff which affected the way they wrote Wizard letters during the tutorials.

Aspect 2: Support and Assistance During the Task. All of the group workers needed some kind of help from the tutors during the tutorials while writing Wizard letters. All of the group workers relied on the tutors for technical assistance in order to solve the mechanical problems related to the computer hardware, the word processing program, the computer games, and the telecommunications system linking the community center to other Velham sites. The group workers recognized that the tutors, because of their affiliation with Erikson Institute and the Velham Project, had access to sources that could help them solve these computer-related problems.

For Group Worker I, Mary, the tutor largely served as a supportive, interested, and helpful conversational partner. Mary asked the tutor for suggestions about ways to describe the Wizard and the Fifth Dimension, requested the tutor's feedback about the content of her letters to the children, and seemed to appreciate the tutor's support and validation of her Wizard writing.

For Group Worker II, Jackie, the tutor primarily provided assistance by validating the children's letters to Wizard and her responses to these messages. "You read the kids letters and let me know that they were writing good stories. I knew that they were saying good things, but it was nice to hear it from someone else" (Interview 2: May 29, 1990).

Group Worker III, Cindy, needed some direct guidance from the tutor. In Tutorials 1 to 4, the tutor helped Cindy establish a routine for Wizard writing by sequencing the writing activities, suggesting ways of responding to the children, and
providing additional sources of help and support. In Tutorials 5 to 12, the tutor gave her a written agenda at the beginning of each session based on Cindy's activities during the previous tutorials. This written agenda helped Cindy explore her own ways of using the routines she had developed with the tutor.

Although Cindy relied on the tutor and the written agenda for guidance and support while writing with the children, she did not need the same kind of assistance when she corresponded with adult writing partners. Cindy wrote a weekly message summarizing her tutorial activities and sent this messages via the telecommunications system, to university students and researchers at other Velham sites. As a result of these regular messages, Cindy developed and maintained written dialogues with two adults, one local and one distant. An examination of Cindy's letters to these adult writing partners revealed a voice that was playful and teasing; emotional, expressive, and responsive; and provided a broader picture of her capacity to assume a new voice in writing.

Group Worker IV, Louise, was more familiar with Wizard writing than the tutor. Although Louise did not rely on the tutor to help her sequence the tutorial activities or sustain communications with the children, she occasionally asked the tutor to suggest words and phrases to represent the galaxy language that the other group workers had identified as an integral part of the Wizard's vocabulary.

Tharp and Gallimore (1988) defined teaching as assisting a learner's performance through a zone of proximal development. They detailed the effects of linguistic and nonlinguistic means of assistance, and demonstrated that these means of assistance can be observed in continuous operations, simultaneously and in combination. Aspect 2 of the construct of help suggests that this system of assisting a learner's performance was operating between the group worker and the tutor during the tutorials.
In addition to identifying the means of assistance, the authors (Tharp and Gallimore, 1988) illustrated the complexity of defining the exact kind of help operating between adults at a particular point in time. Although, these means of assistance were identified in an analysis of the conversational sequences from the Wizard-writing portion of the tutorials, they could not be separated out from one another as discrete autonomous moves on the part of the tutor. On the contrary, these forms of assistance took shape as a fluid sequence of moves made in response to the needs of the novice at any one point in the Wizard-writing task. Therefore, while data suggests that all of the group workers needed some kind of help from the tutors while writing Wizard letters, it is not possible to identify the specific means of assistance the contributed to their reconstruction of the Wizard writing activity.

Aspect 3: The Absence of External Structure and Assistance During the Task.
Three of the four group workers did not maintain the same level of Wizard writing during the independent writing sessions, Weeks 13 to 16. During Weeks 13 to 16, there were individual variations among the group workers in the frequency of their Wizard writing. This suggests that all of the group workers were affected to some degree by the changes in the structure of the tutorials and the absence of the tutor. In addition to these changes, there were other factors that could have affected the regularity of Wizard writing.

The beginning of the group workers' independent writing sessions coincided with the end of the school year and a corresponding change in scheduling and programming at the community center. In addition, some of the older children left the after-school program. Their places were taken by younger children who were new to the program and unfamiliar with the structure of computer club and corresponding with the Wizard. The changes in the frequency and regularity of the group workers' Wizard writing suggests that their ongoing reconstruction of the writing activity would have to adapt to these changes in the environment and the relationships.
Group Worker I, Mary, wrote Wizard letters during all of the four independent writing sessions. Her Wizard writing was sustained, in part, by her vision of herself in the role of the Wizard and her genuine enjoyment of using writing to maintain a relationship with the children. During the tutorials and the independent writing sessions, Mary emerged as a prolific writer. In addition to writing Wizard letters, she corresponded with researchers and students at Velham sites at the University of California in San Diego and in the former Soviet Union, as well as with members of the Erikson Institute literacy staff in Chicago. During the sixteen weeks of the tutorials and independent writing sessions, Mary wrote thirty-two letters to her local friends in Chicago and her distant colleagues in the Velham Project.

Group Worker II, Jackie, wrote Wizard letters in two of the four independent writing sessions. The continued strong presence of Element 2 suggests Jackie's determination to continue writing as the Wizard, thereby maintaining this relationship in writing with the children (See Table 5, p. 58). In Week 14, the second independent writing session, Jackie said that she was "...trying something new in this Wizard letter" (June 13, 1990). Jackie was worried that the children were losing interest in Wizard writing and she wanted to encourage them to continue their relationship with the Wizard.

Group Worker, III, Cindy did not write Wizard letters during the independent writing sessions. During this time frame, she was on personal leave from her job at the community center.

Group worker IV, Louise, wrote Wizard letters in one of the four independent writing sessions. During this session, she wrote fourteen brief messages to the children in her computer group. The content of these Wizard letters suggests that Louise was trying establish a relationship and begin a dialogue between the Wizard and the new children in her computer club group. She asked the children about their in-school and
after-school activities, their plans for the summer, and encouraged them to continue writing to the Wizard.

Aspect 3 of the construct of help suggests that the changes in the tutorial structure and the absence of the tutors had an effect on the frequency and consistency of the group workers' Wizard writing. This aspect of help suggests the importance of providing a supportive presence during a writing activity (McLane, 1990). During the tutorials, the tutors acted as conversational partners, provided metacognitive comments, and offered technical assistance to the group workers. The change in the tutorial structure, the absence of the tutors' supportive presence, and the changes in the frequency and consistency of the group workers' Wizard writing suggests that providing them with different means and sources of assistance contributed to their ability to sustain the Wizard-writing activity.

In summary, Aspect 1 suggests that the kind of direct and indirect help the group workers received during Year 1 of the computer club project contributed to their reconstruction of the Wizard writing activity during the tutorials. Aspect 2 suggests that although each group worker needed some kind of help during the Wizard-writing activity, it was not possible to identify the ways in which particular means of assistance contributed to their reconstruction of the writing activity during the tutorials. Aspect 3 suggests that changes in the tutorial structure and the absence of the tutor interrupted the group workers' ongoing reconstruction of the writing activity. This aspect of help suggests the importance of a supportive presence during the reconstruction process.

Conclusion

The findings from this analysis of the data suggest that during the reconstruction of the Wizard letter-writing activity, which was characterized by similarities to rather than differences from the model, each new Wizard voice took on a unique character. Each group worker developed her own Wizard voice by blending the
elements of the model with her reasons and purposes for writing as the Wizard. In addition, each group worker's reconstruction of the model was consistent with the ways that others in her community and culture used language and literacy.

The aspects of help suggest that the structure of the tutorials and the tutors' support and guidance contributed to the group workers' reconstruction of the Wizard-writing activity. While the tutors' assistance was an important part of the process of reconstruction, the kind of support and guidance they provided could not be described as a linear progression that resulted in the need for less help over time. Rather, during the tutorials and the independent writing sessions, the group workers' reconstruction of the Wizard-writing activity was an ongoing process that needed to be sustained with some means of support and assistance from different sources.
CHAPTER 6
CONCLUSION

This study describes how African American women, group workers in a community center providing after-school activities for children living in an inner city housing project, developed a new way of writing to children. The study focuses on how individuals' unique voice for expressing themselves in this writing task emerged from a social process that included help given over time in planned tutorials. The study examines the activity, the communities of writers, and the real and pretend relationships that organized and supported these women's efforts to learn to write in a new way.

The group workers' reconstruction of the writing activity was characterized more by similarities to, rather than differences from, the model for a Wizard letter. The ways that the group workers reconstructed the model of the letter writing activity was a complex, creative process that included combining portions of the writing activity they found meaningful in relation to the tutor, interactions with the community of writers, and their knowledge of the children in the after-school program.

Finding 1 illustrates that the group workers reconstructed the Wizard writing activity by approximating the model for a Wizard letter. In this phase of their reconstruction of the model, the group workers blended their ideas about Wizard writing with the elements of the model so that their Wizard letters resembled the letters written by the Erikson Institute literacy staff, university students, and researchers in the Velham Project.

Finding 2 suggests that all of the group workers reconstructed the model by emphasizing Element 2, beginning and continuing a dialogue with the children. The
strong presence of Element 2 illustrates one of the ways that the group workers arranged zones of proximal development to support the children's literacy development. Wizard writing introduced the children, and the group workers, to new reasons and purposes for writing, different ways of writing, and new writing partners.

The group workers' emphasis on Element 2 of the model indicates similarities in the ways that they reconstructed the writing activity. In contrast, the case studies provide an interesting picture of the individual differences in their Wizard voices and their reasons for writing with the children. This information on the similarities and differences of reconstruction brings to light the paradox of writing. While writing is a profoundly social process to be shared with other readers and writers, a voice in writing is an intrinsically personal way of conveying meaning and expressing feelings (McLane, 1990).

Finding 3 suggests that the way a group worker reconstructed the model was a personal expression of her voice in writing. This individual reconstruction of the model and the emergence of each new Wizard voice was reflected in the words and phrases each group worker used when she wrote Wizard letters; in the topics she emphasized in her Wizard letters to the children; in her image the Wizard and the way that her image of the fantasy figure affected the role the Wizard assumed in regulating the children's computer club activities; and in her interactions supporting their literacy development.

Finding 4 suggests that the way the group workers reconstructed the model was consistent with the ways that others in their community and cultural group used language and literacy. A subset of the group workers' letters was examined by two outside coders for the presence of additional elements. The responses of Coder 2 suggested that the group workers' words and phrases, and the topics they chose for continuing their dialogue with the children, were recognized by another African American woman with a similar educational background.
This study also examines the role that others played in the writing activity. While the findings and case studies illustrate the difficulty of predicting and prescribing the kinds of help that were the most useful to individual group workers during the writing activity, it was evident that basic literacy activities, access to a community of writers, and support from a tutor contributed to their participation in the activity and their reconstruction of the Wizard writing activity (Cole and Griffin, 1983; Gundlach, 1983; McLane, 1990). The tutor provided the group workers with immediate support in a variety of ways, while the community of writers offered the group workers additional reasons and purposes for writing, as well as new voices to listen to, learn from, and emulate. The findings also suggest that the group workers needed some kind of support and assistance from the tutor in order to sustain the new writing activity. When the environment and the relationships were stable, reconstruction was an ongoing process. But, when there were changes in the context of both the tutorials and the computer club groups, the process of reconstruction was disrupted.

This study describes how group workers started writing in a new voice with children in an after-school program. It suggests that what is already known about children's literacy activities from Vygotsky's (1978) concept of the zone of proximal development also has applications to adults learning a new form of writing. In particular, adults' reconstruction of a writing activity was affected by their participation in basic literacy activities, their membership in immediate and distant communities of writers, and their access to different sources and means of assistance. In addition, this study illustrates the personal and cultural dimensions of an adult's reconstruction of a literacy activity. How the group workers' reconstruction of Wizard letter writing will affect and contribute to the literacy development of the children in the after-school program, and whether their reconstruction of the writing activity will influence the children's reasons and purposes for using writing and reading in the long run is a question for future study.
APPENDIX A

Instructions for Outside Coders

Dear Outside Coder,

Included in this folder are 24 letters written to children ages 7-12 by different adults writing as a fantasy figure, in this case a Wizard. The children who received these letters attended an after school computer club program in Chicago. During computer club the children played computer games such as Tetris, Odell Lake, and Print Shop, wrote penpal letters to children at other computer clubs, and wrote letters to the Wizard.

When the children came to computer club they became "citizens" of the Fifth Dimension. The Fifth Dimension exists somewhere in outer space and is "ruled" by a mysterious Wizard who directs the children's computer club activities through written communications. The adults keep the Wizard's identity a secret, in fact no one has ever seen the Wizard in person. No one knows the Wizard's age or if the Wizard is a man or a woman.

By reading the letters, answering questions about each letter, and rating the content of the messages you are helping me get an idea of how these letters appear to adults outside this research project.

Please read the letters very carefully. You might want to read them more than once before answering the questions. Answer the list of questions after reading each letter. Use the coding sheet to answer yes or no after questions 1-19. If the answer is yes, rate the question using the following three point scale.

1. This letter definitely sounds this way.
2. This letter somewhat sounds this way.
3. This letter sounds this way a little bit.

Question 20 asks for a different kind of answer. I would like to know if there is anything special about the letter that you noticed. I have attached an answer sheet just for this question.

Thanks very much for your help.
APPENDIX B

Sample Wizard Letters for Outside Coders

1. Dear Carrie,
   I'm glad to know that your teacher says you are doing so well in school. I am very proud of you. I knew you could do it. I'm sorry that my letters got lost in the galaxy. I will try not to let it happen again. Write back soon.
   The Wizard

2. Dear Tamika,
   I am embarrassed to the very tips of my Wizard toes. How could I have ever forgotten to answer your letter. Something must have happened to my brain. Some of the connectors were clearly cut by an intergalactic thermo-electronic storm. I am back on track now and will never, in a million light years, forget to write to you again. I certainly hope that this very sincere apology gets me out of any type of punishment. You earthlings would probably make me come right over and accept my punishment. But you know that I can never do that. Well, Tamika, I am ready to begin a wonderful and long correspondence with you. I have my brain finely tuned and ready to give you witty Wizard responses.
   Write post haste, the Wizard

3. Dear Air Cory,
   April 22 was your birthday. I say happy, happy great day to you, Cory. Your spring break was a good week for you. Earth Day sounds great to my ears, but I don't understand what you do for Earth Day. Please tell me in your next letter.
   My best day is when the space shuttle goes home because when it's here it makes all kinds of loud noises, shakes up the stars, and moves my fluffy cloud that I sleep on each night. I have to go looking for it just to take a nap.
   Keep up the great work you are doing. Stay in touch.
   From, Sky Wizard
APPENDIX C

Questions for Outside Coders

1. Do you think this letter would be interesting to children 7-12 years of age?

2. Do you think this letter sounds like it is from a Wizard who lives in outer space?

3. Does the Wizard sound like a good listener?

4. Does the Wizard sound like an understanding friend?

5. Does the letter from the Wizard sound playful?

6. Does the Wizard sound like a dependable writing partner?

7. Does the letter describe the Wizard's life in the Fifth Dimension?

8. Does the Wizard sound upset in any way?

9. Does the adult writing as the Wizard use words that rhyme?

10. Does the adult writing as the Wizard use special words or phrases to describe the Wizard and the Fifth Dimension?

11. Does the Wizard sound interested in the child's computer club activities?

12. Does the Wizard sound interested in the child's school activities?

13. Does the Wizard sound interested in the child's friends and family?

14. Does the Wizard give the child advice about computer club, school, or friends and family?

15. Does the Wizard encourage the child to work hard in school?

16. Does the content of the letter encourage the child to respond?

17. Does the letter indicate that the Wizard values school?

18. Is the Wizard interested in the child's future plans and goals?

19. Does the Wizard ask for the child's help?

20. Is there anything else about this letter that seems special to you?
APPENDIX D

Interview I

1. What is your vision of the Wizard?

2. What kinds of things does the Wizard say?

3. What can the Wizard do by writing to kids?
APPENDIX E

Interview 2

WIZARD WRITING

Now that you have been the Wizard for several months:

1. What is your vision of the Wizard?

2. What kinds of things does the Wizard say?

3. What can the Wizard do by writing to children?

COMPUTER SKILLS

1. Describe what you can do at this time when you work on Appleworks?

2. What can you do on Point-to-Point?

3. How would you describe your typing at this time?

4. Are there any other useful skills that you have learned while using Appleworks or Point-to-Point?

TELECOMMUNICATIONS

1. What value do you see in communicating with people outside of Chicago?

THE CONSTRUCT OF HELP

1. Have you received help from people in other places?

2. Have you received any help about games?

3. Did anyone help you with developing and defining the role of the Wizard?

4. What kind of help is the most useful to you when you are learning something new on the computer?

5. What kind of help is useful to you when you have a problem with the computer?

6. Are there particular things that I do when you are learning something new or trying to solve a problem that are particularly helpful?
7. Is there anything that I do that you find annoying or distracting?

8. How do you help each other with computer problems?

9. Were there specific things that I did when you were writing as the Wizard that were helpful?

10. Was there anything that wasn't helpful?

11. How do you help each other with Wizard writing?

12. How has computer club changed or affected you?

13. How has computer club change or affected the After School Program?

14. Now that you have exchanged messages with people in California and Moscow, describe how you see yourself in relations to the larger world.
REFERENCES


VITA

The author, Dale Phillips Lipschultz, was born in Chicago, Illinois, on August 23, 1946. She entered the University of Minnesota in 1965, where she majored in history, receiving a B.A. in 1968.

In 1973, she entered the early childhood profession as teacher and director of the nursery school program at West Suburban Temple. In that capacity, she developed programming for preschool children, toddlers, and families. She received a M.Ed. degree in child development from the Erikson Institute in 1986. As part of the degree program, she worked with Erikson Institute faculty at child care programs in racially diverse Chicago communities studying children's early literacy development.

In 1986, she resigned her position at West Suburban Temple and entered the Erikson Institute doctoral program in child development at Loyola University of Chicago. In 1986, she worked with Erikson Institute faculty at St. Xavier University in Chicago developing after-school computer club activities for children at the University's Learning Disabilities Clinic.

From 1988-1990, she worked with Erikson Institute faculty, and the staff and children at the Hearst-LeClaire Courts Community Center in Chicago. The community center was part of the Velham Project, an international research project with sites in the United States and Russia that utilized computer telecommunications technology to create a network of after-school computer clubs for school-age children. In 1989, she spent two months working at the Moscow site of the Velham Project.
In 1991, she became the executive director of Reach Out And Read, a family literacy program providing educational services for minority women and their young children. In 1993, she developed and coordinated the Literacy and Health Partnership, a coalition of community based literacy programs, health clinics, and hospitals serving minority women with young children in Chicago's chronically underserved communities.
Dissertation Approval Sheet

The dissertation submitted by Dale P. Lipschultz has been read and approved by the following committee:

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The final copies have been examined by the director of the dissertation committee and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the committee with reference to content and form.

The dissertation is, therefore, accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

4/6/95
Date

[Signature]
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