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Three to five year old remembering : one window into the construction of knowledge.

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THREE TO FIVE YEAR OLD REMEMBERING:

ONE WINDOW INTO

THE CONSTRUCTION OF KNOWLEDGE

A Dissertation Presented

by

GAIL P. PERRY

Submitted to the Graduate School of the
University of Massachusetts Amherst in partial fulfillment
of the requirements for the degree of

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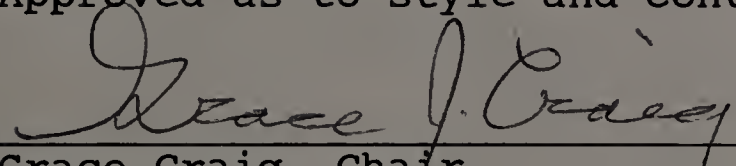
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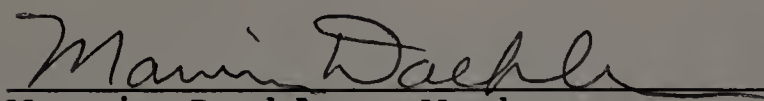
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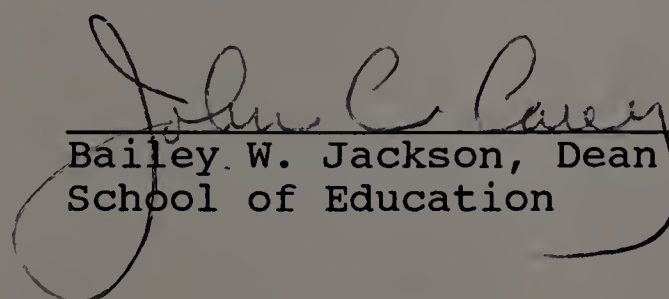
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DEDICATION

I dedicate this work to the memory of my mother who provided me with a "memorable childhood," and to the Head Start children, teachers, and families of Garrett County where special memories are created on a daily basis.

Finally, I give thanks to my husband, whose
contributions are endless. His tireless support made it
all possible.

ABSTRACT

THREE, FOUR AND FIVE YEAR OLDS REMEMBERING:

ONE WINDOW INTO

THE CONSTRUCTION OF KNOWLEDGE

MAY 1994

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Young children grow cognitively competent through
joint processes of guided participation and appropriation
wherein children use past interpretations of experiences in
their lives to make sense of new events (Rogoff, 1990).
While young children are deemed competent meaning-makers
when supported by their everyday social contexts (Fivush
and Hudson,1991, Rogoff, 1990) in the early years of
schooling, traditional classroom discourse styles do not
facilitate the child's ability to access their personal
meaning. Based on findings from three pilot studies, it was
hypothesized that four features of the social context - the
teacher's valuing of their personal meaning, encouraging
children to personalize their narrative, use of informal
conversational discourse, and encouraging peer
contribution- would enhance children's meaning-making. In
order to examine the relationship of these social context
features on the process of meaning making, memories were
collected from children in a four step memory book

activity. Thirty six teachers from five different

socioeconomic settings conducted the memory book activity

with 199 children wherein the children verbally reported on

and made pictures of a self chosen event from their past.

Transcripts, developed from the videotapes of the memory

book activity, were rated for coherence and completeness of

the memories, and the degree to which the four context

features were in evidence. Multiple linear regression

analysis was used to determine whether there was a

relationship between the children's ability to access and

communicate their memory and the four independent

variables. The results indicate that the teachers valuing

and commitment to children's personal knowledge is a

significant predictor of coherent and complete memories. In

this study, meaning-making and guided participation can be

described as social and collaborative in nature, and

proceeds in a four stage process.

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INTRODUCTION

Background and Rationale

Researchers have recently begun to ask how young children interpret events in their lives, and to describe the kinds of understandings they are constructing of their immediate environments (Nelson, 1988, Fivush & Hudson, 1991). Being able to see the world as the child sees it is an important teaching skill. Throughout the history of the profession, early childhood educators have been exhorted to "individualize," to begin their teaching with what the children already know, and proceed with the teaching/ learning process from there. "Teachers need to seek cues to the level of thinking in daily intercourse with children . . . to ascertain the essence of their own meaning" (Mitchell, 1946, p. 114). The artistry of good teaching depends on insight into the understandings of the children- -"understanding learner's understandings" (Duckworth, 1981; Almy & Genishi, 1979). The first order of reality in the classroom is the student's point of view (Paley, 1986). Preschoolers rely largely on their memory of their own experiences in the world to learn (Ratner et al., 1990). Tough (1985) contends that the main goal of education of young children is to help them make sense of their

experiences. Children need to represent their views in discourse with the teacher in order to reflect on the meaning and help teachers become aware of the extent of their knowledge. The process is described by Bruner (1990) as "meaning-making."

Yet, Cazden (1988) contends that teachers spend only a small amount of official classroom time inquiring about the meaning children are constructing or have constructed, their personal meaning, or allowing children to create their own oral texts on a self chosen topic. The preschool is a good place to examine this:

> the fact that the thoughts of the teacher and
> student are furthest apart in preschool makes it
> a fruitful place for research and practice in the
> art of listening to what the child is saying and
> (the teacher) trying to figure out what they
> mean. (Paley, 1986, p. 127)

Scaffolding, a concept which has emerged from the literature on cognitive development (Wood, Bruner, & Ross, 1976), enlightens the way in which teachers can connect with children's meaning, and stimulate cognitive development. In this model, the teacher initially carries the major responsibility for the activity (erecting a scaffold for the child). As the child becomes more competent at the task and is able to take over more of the responsibility, the scaffold is gradually diminished by the teacher, until the child can finally do on his or her own what formerly could only be done in collaboration with the teacher. This concept is grounded in the Vygotskian notion (1978) of the zone of proximal development--the distance

between a child's actual developmental level and the level of potential development as determined through problem solving under adult guidance. The success of using this technique in classrooms rests in the ability of the teacher to "locate" the child's position in his or her own zone of proximal development.

In order to guide teachers' scaffolding work with children, better ways of understanding children's interpretations of their world must be found, especially in teachers' ongoing interactions with children. They need to know how children are interpreting the curriculum as the teaching/learning proceeds: what the children understand of the learning activities. Teachers can then build on children's actual understanding.

It is a common assumption that young children interpret the curriculum in the same way that it is intended in the curricular plan, or as they (the teachers) have presented it. This is captured in the following statement by Paley (1986):

> In my haste to supply the children with my own
> bits and pieces of neatly labeled reality, the
> appearance of a correct answer gave me the surest
> feeling that I was teaching. . . . I wanted most
> of all to keep things moving with a minimum of
> distraction. It did not occur to me that the
> distractions might be the sounds of children
> thinking. (p. 122)

Even when teachers use the best strategies to get across the curriculum, children often take different meanings from the same experience. For all children, ideas, relationships and experiences become meaningful

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because of the interpretation the child gives them (Bruner, 1990). The children's perceptions are intimately linked to their own unique and prior experience, and understanding of events.

Analyzing how a child interprets and organizes meaning is a difficult and complex task, a teaching skill that is often not addressed adequately in teacher preparation (Lathlaen, 1988). The task is further complicated for teachers since the educational process is dynamic and constantly changing (Cazden, 1984; Green, 1983). Children's understandings change, sometimes from day to day, and their meaning is often elusive (Almy & Genishi, 1979). It is difficult to capture what a child might be thinking or understanding. Standardized achievement measures used in schools produce a narrow view about the knowledge of the individual child's meaning: they produce even less information about how young children understand their ongoing experiences (Perrone, 1990).

Standardized test items frequently do not make sense to the child (Donaldson, 1978; Gelman, 1978), nor can they tap into young children's stronghold of knowledge--their unique experiences at home and in the community where they have been interacting and constructing meaning. Neither do they serve the teacher as ongoing feedback about the child's changing knowledge-base.

Methods most frequently used to assess a child's development in the early learning years center primarily on

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observation (Seefeldt, 1990). Anecdotal records are far more informative about a child's particular meaning than achievement or intelligence tests. But the most effective form of this kind of assessment is the case study, which is far too time consuming for teachers to do with all children (Seefeldt, 1990). Interviews with young children are the most direct form of finding out what they are thinking and yet the least practiced (Cazden, 1983). Until recently, the prevailing view in child development research was that young children did not have the cognitive or communicative competence to talk about their ideas (Gelman, 1978; Nelson, 1981, 1988; Donaldson, 1978). However, in the last fifteen years psychologists and educators concerned with cognitive development of the young child have turned their attention to the research paradigms used to investigate children's thinking. It was suggested that the reported poor memory and knowledge base of young children was due in part to the methodology used to tap children's cognitive skills (Donaldson, 1978). Techniques had not been developed which were effective in helping children access their own knowledge in order to make it socially available. It was therefore an important goal of this research to use methodology which would optimize the meaning-making process.

Three developments in the research literature enlighten our understanding of this process of meaning-making: the study of cognitive development in "everyday"

environments, the work on classroom discourse and discourse

analysis, and the research on narrative memory in young

children. All of these studies converge on the critical

role of social context in cognitive development (Cazden,

1984; Erikson, 1981; Rogoff, 1984, 1990, 1991).

Recently, the trend toward naturalistic research has

increased, and researchers have begun to look at cognitive

functioning in everyday settings as children take part in

the activities of their families and communities (Nelson,

1986; Rogoff & Lave, 1984; Rogoff, 1990, 1991). Rogoff

(1991) has presented a model of cognitive development,

which, she states, occurs in an apprenticeship through the

processes of guided participation and appropriation. In

the metaphor of apprenticeship, the adult or older child

provides a model for the less experienced younger child.

In guided participation,

> the children and their expert partners
> participate collaboratively in culturally valued
> activities, in which guidance may be tacit or
> explicit. (Rogoff, in press, p. 23)

In this shared problem solving, novices are actively trying

to make sense of the activities, constructing meaning

through the interaction. Children grow cognitively through

the process of appropriation, the "process by which

individuals transform their skills and understanding

through their participation . . . becoming prepared for

subsequent involvement in other related activities"

(Rogoff, in press, p. 20). An examination of these

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processes as they occur in the lives of young children, and their teachers, (in particular the social context features which characterize these processes), will provide a framework for greater understanding of how children construct and communicate meaning.

The second area of research which contributes to understanding the child's meaning is the study of classroom discourse. The development of discourse analysis techniques has enabled researchers to describe, in detail, the dynamic changes occurring as adults and children interact in educational contexts. Children generate their own meanings within a social context that both teachers and children create. Barnes (1974) specifies the role of speech and social context in creating shared meaning in the classroom:

> The actual (as opposed to the intended)
> curriculum consists in the meanings enacted or
> realized by a particular teacher and class. In
> order to learn, students must use what they
> already know so as to give meaning to what the
> teacher presents to them. Speech makes available
> to reflection the processes by which they relate
> new knowledge to old. But this possibility
> depends on the social relationships, the
> communication system, which the teacher sets up.
> (National Institute of Education, p. 1)

Discourse analysis techniques enable the researcher to examine the communicative context through which teachers attempt to elicit children's constructed meaning. Children use narrative form to frame their experience and to characterize its flow of daily events (Bruner, 1990).

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Bruner calls for an examination of the social contexts of children's narratives":

> We shall be able to interpret meanings and
> meaning making in a principled manner only in the
> degree to which we are able to specify the
> structure and coherence of the larger contexts in
> which specific meanings are created and
> transmitted. (Bruner, 1990, p. 64)

Certain features of the communicative context have been found to alternatively prohibit or facilitate children's ability to talk about their own understanding of a topic (Green, 1983). Sociolinguists (Cazden, 1988; Linfors, 1980) studying the transcripts of the traditional teaching style, characterize it as a formal recitation discourse which centers on asking the children for brief replies to teacher questions,"the correct answer", and then the teacher evaluates the answer. In this traditional recitation process, children's responses are predictable, as the teacher grooms children to say a specific set of answers, which may or may not represent accurately the child's actual understanding (Paley, 1986).

This doctoral research is based on three previous studies conducted at Harvard University on classroom discourse patterns and narrative memory (Perry, 1984, 1987; Perry, Cain, & Minor, 1986). Narrative memories and language samples were collected from children by their teachers in thirty different classrooms, and the transcripts were analyzed to ascertain the kinds of discourse strategies and social contexts that characterized these classrooms. The two main discourse styles which

emerged from these data were the Traditional Classroom Format and the Child-centered Format. Each one of these formats was defined by a number of teacher/child behaviors which were identified as context features. The first teaching style (traditional/classroom format) resembles the familiar teaching practice described earlier where teachers control and dominate the talk. They ask primarily for information which they have previously told their students. This discourse style serves to limit the children's ability and practice in accessing, organizing and sharing their own memories for events and experiences.

In contrast, in the second teaching style, Child-centered format, communicative context features appear to be positively related to the children's ability to express their meaning. In this teaching style, teachers place value on and ask the children for their own constructed meaning. In the pilot study (Perry, 1984), the teachers' beliefs that children's own knowledge was important was evidenced when children actually understood the task as a request for their own interpretation of an event, rather than "the words the teacher wanted to hear." The children proceeded with the memory narrative, rather than waiting for the teacher to take the lead as in the traditional classroom format. Confirming evidence thus came from the children. Teachers facilitated the process by cueing into and helping the children elaborate, personalize, and clarify their understandings. They encouraged the children

to initiate topics and control a substantial amount of classroom talk. The teachers set up an informal conversational format and promoted peer contribution.

The relative influence of these context features of the young child's ability to access and communicate his or her ideas has not been established and is the subject of this doctoral study. The Child-centered format, with its defining context, features constitutes the independent variables of this research. The context features of the traditional classroom format are used as a contrast to elucidate the features which are examined.

The third area of research from which this study of children's meaning-making emerges is the work on children's narrative memory. The studies documenting children's event knowledge and narrative memory have uncovered impressive memory and discourse strategies which are particularly cogent to the problem of ascertaining young children's understanding and meaning (Fivush & Hudson, 1991). Research in the last decade has produced evidence that young children are actively involved in making sense of their physical and social world. Children develop the ability to remember and represent events and scenes through their continuing interactions with others in their everyday lives. The fact that children must be able to build on past knowledge and make this knowledge available to others is vividly documented in the work of Fivush and Hudson (1990) on remembering in young children:

Preschool children perform quite well in tasks
that draw on these representations, but they
typically fail in tasks in which their knowledge
cannot help them understand the context or the
procedures that are called for. In addition,
they may possess knowledge relevant to a task,
but may not always access or use that knowledge
in an unfamiliar context. Thus, an important
direction in cognitive developmental research has
been to investigate the content, organization,
and accessibility of children's emerging
knowledge structures as well as the interaction
between developing knowledge and developing
cognitive abilities. (p. 2)

The act of remembering a past experience in a child's

life provides a window on the child's understanding of a

particular cultural event, his or her personal meaning.

The dialogue between the adult and the child gives the

meaning-making process visibility, enabling the researcher

to examine what is happening when teachers work with

children to help them reconstruct that event, particularly

the child's ability to access and communicate their

interpretation. This research, in a broad sense, is an

analysis of what is going on when teachers help children

remember a past event. The sociocultural context of the

thinking and meaning making processes involved in a school

activity where children are making a memory book are

examined. The everyday experiences of the children

constitute the body of information which the subjects of

this study remember.

This researcher has used child narration of a

remembered event because it is a natural way for three- to

five-year-olds to express their meaning. Bruner (1990)

defends the use of narrative as the most crucial early
means for children to voice and establish their meaning.

> Young children have an innate predisposition to
> narrative organization that makes it a viable
> tool for early reasoning, used to make sense of
> everyday life. Children use the narrative form to
> order what happened, explicate the ordinary as a
> backdrop for the exceptional and introduce
> personal perspective and evaluation into their
> narrative accounts, the standard way of adding a
> landscape of consciousness to the landscape of
> action.   (p. 80)

Sociolinguists (Heath, 1985; Ochs & Schiefflin, 1979)
have also offered vivid examples of the functional
importance of narratives in bringing children into the
culture.

Drawing from the pilot project which this researcher
conducted on narrative memory for events (Perry, 1986),
this doctoral study employs a four step memory collection
procedure--a memory book activity (see p. 44). The goal of
this procedure is to enhance the child's ability to
participate in the project, and special efforts were made
to design a research paradigm which would optimize the
child's performance. Unlike much of the past research on
narrative memory, in this procedure, the subjects are asked
to choose the event, or "to-be-remembered material."
Incorporation of the unusual procedure of having the
subject select the material to be remembered is justified
by three findings in the narrative memory literature.
First, since children are more likely to remember salient
and meaningful experiences (Hudson & Fivush, 1991), it
follows that the children, rather than the researcher,

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should choose an event that is meaningful to them. Choosing the topic to be remembered enhances the retrieval potential because it enables the children to draw from a real-world knowledge base which was experienced in the meaningful and complex contexts of their families and neighborhoods. Secondly, since the child is remembering an event which did not occur in school, the teacher is less able to lead the child into reconstructing the "teacher's version" of the event (Perry, 1987). The researcher is therefore better able to examine the processes and features of the retrieval context in which the focus is on the child's interpretation of the recalled event.

The third finding in the narrative memory literature which supports the procedure of including subject choice of the event to be remembered is the finding that children are more likely to report more completely to someone who they know has not experienced the event, than the pseudo task of telling an adult about something that the he or she already knows (Mandler, 1990).

Design of the Study

This research examines the meaning making and guided participation processes of three- to five-year-old children by asking teachers in 36 classrooms to administer the memory book activity to a group of eight children. It is hypothesized that four features of the social context of those memory book activities--child meaning, personalizing,

the discourse format and peer contribution--enhance the child's ability to remember. The influence of these context features on the children's ability to make their meaning socially accessible is analyzed. The dominant patterns of guided participation and meaning-making are then described.

Statement of the Problem

Helping children make accurate sense of their experiences is a major responsibility and goal of teachers (Katz & Chard, 1989; Donaldson, 1983; Tough, 1985). In order to make their experiences meaningful, children must build on what they already know (Barnes, 1974). This meaning making process is embedded within the social contexts in which children and adults participate on a daily basis (White, 1984; Rogoff, 1990). Therefore, a critical skill for teachers is to provide the kinds of ongoing educational contexts which help children access and communicate their knowledge. Traditional classroom discourse styles do not facilitate the display of personal meaning (Cazden, 1988; Stubbs, 1983). This study is an investigation of how alternative classroom contexts affect children's ability to communicate their knowledge.

Purpose of the Study

The purpose of this research is to describe the processes of guided participation and meaning making

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implicated in a child's ability to remember an event. The specific objectives of this study are threefold: (1) to examine the processes by which children and teachers participate in a narrative memory activity; (2) to determine if four specific features of the social context in a variety of classroom settings contribute to better performance of the memory task (a demonstration of the accessing and communication of the child's knowledge); and (3) to develop a research paradigm for the study which treats the meaning making process as a dynamic event where teachers and children and sociocultural context are examined simultaneously.

Significance of the Study

This research cuts across many professional disciplines. The implications therefore have pertinence in several areas. Most directly, the findings can be applied by practitioners in early childhood settings. Teachers are caught in the middle of a controversy about testing. There are demands on teachers to make their teaching developmentally appropriate and to assess young children's learning accurately. Yet the assessment tools available to measure that learning and knowledge are largely inappropriate. Additionally, since this knowledge is believed to be embedded in the social context (Rogoff, 1990; Bruner, 1990; Wertsch, 1991), teachers must learn how to get feedback and assess children's knowledge as part of

the ongoing teaching process. Few techniques are offered
to teachers about how to find out the views children hold
of the world, especially in the preschool. One expert
teacher stated it well: "So often I drift around on the
edge of their knowing without finding a place to land"
(Paley, 1986, p. 131). Findings from the study can be used
to sharpen the insight into the kinds of interpersonal
relationships in which teachers can participate with
children to help them access and communicate their
knowledge, and, in turn, to get crucial feedback from
children about their learning. It is said that children do
not own a concept until they articulate it, yet children
have all too few opportunities to voice their ideas in
classrooms where the teachers' ideas predominate. We have
only sporadic glimpses into what a child is thinking. This
research on children's personal knowledge provides many
descriptions of children's understandings.

Because of it's focus on on-going teacher/child
interactions, this work draws critical attention to
teaching as a dynamic, two-way process that changes from
moment to moment. The results of this study inform the
redefinition of the teaching process, as teachers work to
refine their discourse styles with children and to
incorporate new perspectives into their daily interactions
with their students.

Further, this study provides documentation of the
concept of cognitive development as a sociocultural

process: the ways in which individual efforts, cultural activities, and collaborative efforts interrelate to constitute cognitive development (Rogoff, 1990). Specific illustrations of guided participation and meaning making hopefully extend the understanding of these concepts. The examination of the conditions and processes through which differing social events are remembered, furthers the understanding of the "collective cognitive processes" involved as teachers and children collaborate.

This doctoral research contributes to the body of literature concerned with the investigation of narrative memory and the role of meaningful activity The success and failure of the research paradigm and instrument developed for this study is informative to researchers interested in analyzing memory performance in ecologically valid ways, ways that have meaning to preschool children. The unique aspect of having the child choose the "to-be-remembered" material presents an opportunity to understand the impact of this aspect of the methodology on the children's ability to remember.

Examples of dynamic teaching relationships and the contexts which better enable children to retrieve their understandings can also inform the practice of teacher education. Teacher educators are faced with the task of preparing students to cope with a rapidly changing body of knowledge about child development. The concept of providing a window on the contexts and processes of

children's meaning-making cuts across all developmental areas, not just cognitive development. The body of data concerning how children feel and appropriate their beliefs when remembering experiences is expanded in this work.

Bruner (1990) contends that psychology is moving away from an isolated computational model of mind, to understanding mind as a creator of meanings. He affirms the return of the profession to what he describes as the great psychological questions: "questions about the nature of mind and its processes, questions about how we construct our meanings, and our realities, questions about the shaping of mind by history and culture" (Bruner, 1990, p. 64). In its broadest sense, this research is conducted in this spirit, and augments the emerging literature on understanding the young child's meaning-making contexts within a variety of social settings.

C H A P T E R   I I

REVIEW OF LITERATURE

This study draws from three areas of the research literature offering frames of reference for examining how a young child makes meaning: the sociocultural view of cognitive development, the sociolinguistic work on classroom discourse, and the research on narrative memory development in young children. This research is grounded in the following premises which have emerged from the foregoing literature:

1. Knowledge and meaning are socially constructed.

2. Cognitive development occurs as you are going about the business of daily living.

3. Cognition is neither a unitary nor a static process. Processes such as remembering, recounting and reflecting occur simultaneously and cannot be easily separated from one another. Further, cognition is an active process (thinking, planning, recounting, remembering) as opposed to a collection of mental possessions (thoughts, schemas, memories, scripts, plans).

4. Meaning making processes and cognition are equivalent and many are displayed in the discourse patterns the children have with adults who are influential in their lives.

Sociocultural View of Cognitive Development

The first area of research from which this study

emerges is the perspective of cognitive development known

as the sociocultural view. Many professionals studying

cognitive development today begin their research with the

Vygotskian (1978) assumption that knowledge appears on two

planes, first on the social plane,and secondly on the

psychological plane (Bruner, 1990; Fischer, 1980,

Greenfield, 1984; Rogoff, 1984; Wertsch, 1991; White &

Siegel, 1984). While in the past the focus has been on the

role of the individual child in constructing reality, the

sociocultural view of cognitive development highlights,

instead, the social environment. Bruner (1990) captures

this change of thinking in developmental psychology, a

movement he calls a "quiet revolution":

> We have come once more to appreciate that the
> child acquires social lenses through his
> interactions with parents and teachers through
> which he interprets his experiences with the
> world. We had fallen into the habit of thinking
> of the child as an "active scientist,"
> constructing hypotheses about the world,
> reflecting on the physical environment, and
> formulating increasingly complex structures of
> thought. But this active, constructing child had
> been conceived as a rather isolated being,
> working alone at her problem solving. (p. 1)

In the sociocultural view, the social environment

(culture) is not merely an overlay on the child's thinking,

but is central to the process. Vygotsky, Gibson, Piaget

and Dewey provide a basis for the sociocultural view of

development: they all emphasize the interactive

relationship between the individual and environment in cognitive development (Rogoff, 1990). In the sociocultural view, the culture and the individual are not treated as separate entities and studied as such. Social interaction not only is critical in the cognitive development of the child, but cognitive processes such as narrative memory, voluntary attention and language are themselves sociocultural phenomena (Rogoff, 1991).

Vygotsky(1978) proposes that the child's cognitive development can only be understood in association with the sociocultural milieu in which the child is embedded. He states that researchers should focus on the social unit of activity rather than seeking to explain cognitive development from the individual child's independent performance (Wertsch, 1985). Dewey (1916) likewise supports the connection of social environment to cognition in the following:

> Every individual has grown up, and always must grow up in a social medium. His responses grow intelligent, or gain meaning, simply because he lives and acts in a medium of accepted meanings and values. (p. 344)

Rogoff and Mistry (1993) describe children's development as a "creative process of participation in communication and shared endeavors that both derives from and revises community traditions and practices" (p. 5). In the sociocultural perspective, cognitive development is a reciprocal system between individual efforts, the interpersonal relationships, and the socially constrained

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activity. "The child is part of a system that both shapes and is affected by the individual and culture . . . a constant cycle of interaction, feedback, and change" (Rogoff, 1984, p. 10).

For the three- and four-year-old, everyday experiences, not necessarily designed for teaching purposes, become the core of development, as the young child practices cognitive skills such as remembering, reasoning, planning and communicating with their families and in their communities (White & Sigel, 1984). Young children demonstrate their knowledge of their world, such as what you do when you go to a park or store, and display their memories of these events in the form of scripts and episodic narration (Nelson & Gruendel, 1981). As young children enter school settings, the sociocultural contexts in classrooms become important in cognitive development.

Guided Participation

Rogoff (1990) has developed an account of cognitive development which she describes as an apprenticeship. As apprentices, children develop cognitively when they actively participate with more expert partners in everyday activity through guided participation. Guided participation goes beyond the concept of explicit instruction from adult to child, by attending simultaneously to the cultural situation, and the individual and interpersonal processes. All three

represent inseparable aspects of whole events in which
children and communities develop (Rogoff, in press).
Rather than a variable which does or does not occur, is, or
is not effective in particular situations, guided
participation is a perspective through which to view
development.

Central to the concept of guided participation is the
active involvement by children in meaningful, culturally
valued activity which is both collaborative and collective
in nature. Actively engaged as novice learners, children
seek to make sense of the activities. They are largely
responsible for putting themselves in the position to
learn. However, their partners (teachers, parents, older
children) who are more knowledgeable and skilled, are more
adept at finding effective ways to reach a shared thinking.
Thus, in the process of guided participation, the novices
and experts continually try to find a common ground of
understanding. Vygotsky calls this process inter-
subjectivity (Wertsch, 1985).

Intersubjectivity is achieved when two persons engaged
in a dialogue can transcend their private worlds and
negotiate a shared meaning--a temporarily shared social
reality that is established by and continually modified by
acts of communication (Wertsch, 1985). As guided
participation proceeds, the more skilled partners in the
interaction try to adjust their communication to fall
within the novice's zone of proximal development and the

shared level of understanding. As the joint problem solving proceeds, the skilled partner supports the novice's efforts on achievable aspects of the problem. The child, through continued participation in the shared cognitive efforts: "comes to take an increasingly central and responsible role in carrying out a practice and understanding the process" (Rogoff, in press, p. 25). Through a process which Rogoff calls appropriation, children carry forward their interpretation of an event to subsequent, or new situations. An important aspect of this view of cognitive development is that the children carry forward their own understanding of the event, gained through their participation in the activity, rather than copying the external model of the expert.

Narrative Memory

Recent research on the development of early memory, event representations, and the use of narratives in early life support the use of narrative memory as a representation of child meaning in this dissertation. The second body of research upon which this study is based is the work of psychologists on the development of narrative memory in early years.

Prior to the late seventies, it was a widely held assumption that the young child's memory system was limited and ineffective (Chi, 1978; Nelson, 1986), primitive, and disorganized (Nelson, 1981; Todd & Perlmutter, 1980).

There is mounting evidence that the traditional research paradigm which has been used in the past to examine memory served to deflate the memory performance of the young child de Loache, Cassidy, & Brown, 1985; Nelson, 1986). Many problems plagued the researchers using the traditional research paradigm. The following represent some of the issues regarding the memory research methodology, all of which were considered in the research design of this dissertation.

There was evidence that <u>children were unsure of the task</u>, what they were being asked to do, and why they were being asked to do it (Donaldson, 1978). If the task does not make sense to children, they are not motivated to comply (de Loache & Brown, 1979; Donaldson, 1978; Gelman, 1978). Likewise, most of the memory research was done by psychologists, unknown to their subjects, who asked them to remember a series of objects or pictures of toys, and so on. When children are <u>assessed in unfamiliar laboratory situations by strangers</u>, who ask them to <u>remember isolated pieces of information</u>, they perform poorly (Cole, 1975; Labov, 1970). Children remember more efficiently when both the encoding and retrieval is embedded in meaningful contexts with familiar adults (Paris, Newman & Jacobs, 1985). The search studies of toddlers (de Loache, 1980) and preschoolers (Wellman & Sommerville, 1979), which involve tasks which make sense to the children and are conducted by parents or familiar adults, give evidence of

this competence. <u>Complex social context, such as that found</u> <u>in natural settings, facilitates performance on cognitive</u> <u>tasks</u>, and this social context is missing from isolated experimental settings (Eisenberg, 1985; Paris, Newman, & Jacobs, 1985). In everyday settings, such as going to the grocery store, adults often point out salient forms and functions, both verbally and nonverbally, helping to provide important connections that serve the child at retrieval. In contrast, in laboratory settings, in order to remember a set of objects, pictures and the like, the child must abstract on his or her own what the adult thinks is important about the object in question. In this way, the traditional research paradigm strips the child of the natural structure and organization present in tasks that occur in meaningful social contexts (Rogoff, 1990).

In traditional research paradigms, <u>memory is treated</u> <u>as a single cognitive ability,</u> narrowly defined, such as the naming of an object not present. In an attempt to simplify the task for young children, researchers limited the to-be-remembered material to simple objects which could be "easily recalled" (Arns, Minnick, & Wertsch, 1984; Rogoff, 1984). However,

> isolation of response is not secured by
> simplifying situations or stimuli and leaving as
> complex an organism as ever to make the response
> . . . what we do then is simply to force this
> organism to mobilize all its resources and make
> up, or discover, a new complex reaction on the
> spot. (Bartlett, 1932, p. 4).

Thus, memory cannot be understood as an isolated cognitive faculty to be separated out, but must be studied in relationship to individual knowledge, attitudes, and other cognitive skills (Rogoff & Mistry, 1985; Cole & Scribner, 1977).

In order to understand the process of memory as it functions in the cultural context, psychologists have begun to examine the practices of children and those around them in their everyday activities within the broader framework of the community (e.g., Hudson & Fivush, 1990; Neisser, 1990; Rogoff & Mistry, 1985). They became interested in the nature of the information or experiences which children spontaneously retain; the cognitive processes involved in encoding and retrieval; and the factors implicated in the production of this information which make it socially accessible (White & Pillemer, 1986, 1989).

Research in the last fifteen years has increasingly been performed in the naturalistic settings of the child, and has produced another perspective of child memory (Hudson & Fivush, 1990; Nelson, 1986). Using ecologically valid approaches, new phenomena have been discovered: "that heretofore might have remained aloof or ignored" (Farrar & Goodman, 1990, p. 40). Young children, even toddlers, are seen as much more competent, carrying out complex cognitive processing, and capable of recalling personally significant events over a long period of time (Hudson & Fivush, 1988, 1991; Farrar & Goodman, 1990; Resnick & Kagan, 1982).

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This recent study of young children's recollections of past events has contributed important insight into the meaning-making processes of young children in their quest to construct an understanding of their physical and social world. Based on the work of Nelson and colleagues (1981, 1986, 1988), most of the research on early memory proposes that beginning as toddlers, children organize their real world experiences into general event schemas. Event memory is held to be central in the study of cognitive development of the young child: "generalized event representations form the basic building blocks of early learning and memory" (Nelson, 1981). When young children experience an episode repeatedly, as in daily routines, they form a representation of that event that is more general than any of the individual episodes that it comprises (Nelson & Gruendel, 1981).

This concept of "generalized event representation" emerged from a model developed by Schank and Abelson (1977). In this model, the authors assert that much of our real world knowledge is represented in a form that resembles scripts. Scripts include the participants and temporally ordered actions that are related to accomplishing familiar events. For example, a "going to the grocery store" script might include driving to the store, getting a shopping cart, choosing the food, paying for the food and going home. When new episodes occur, children try to fit them into their general schema.

As scripts become well learned, they function automatically and do not have to be processed by the child with the same amount of attention given to new information. In this way, young children use generalized event representations to guide their behavior, to predict what may happen and anticipate future events (Farrar & Goodman, 1991).

Supporting this theory, researchers have found that two- and three-year-olds are more likely to talk about routine or typical events than novel personal experiences (Bauer & Mandler, 1991). Even when asked about a particular event, children seem to rely on their script knowledge to provide a framework for recall. Nelson (1986) and others found that, even with older children, when three- and five-year-olds were asked, they were not able to tell about what happened yesterday at school, but were confident in answering the more general question, "what happens at school?"

While these earliest memories and attempts at meaning making frequently appear to be accurate and demonstrate children's ability to remember, the "narratives are loose and disorganized . . . took the form of free association . . . are often difficult to identify without prior knowledge of person and place" (White & Pillemer, 1989, p. 320).

In their review of early memory research, Pillemer and White (1989) posit two functionally separate memory

systems. The first is preverbal, and memories are evoked
by feelings, locations, or people. The authors hold that
it is expressed through images, behaviors, or emotions.
This system begins in infancy and lasts throughout one's
life. Memories can be activated, for example, by placing
the child in the original context, as in the study of
three-year-olds by Myers et al. (1987), in which three-
year-olds demonstrated behaviorally that they remembered,
but did not appear to know that the events had been
experienced before, and could not verbalize their
memories.

The second system develops some time in the three- to
five-year-old period when children become efficient
"language users" capable of representing their personal
experiences in narrative form. In this system, unlike
their younger peers, the children are able to intentionally
search for and retrieve their understanding of an event and
report in narrative form, making their meaning "socially
accessible" (Pillemer & White, 1989, p. 326). Four- to
six-year-olds become more skilled in recalling specific
experiences. These memory narratives usually include the
central acts of the event related to the goal. In addition
to the chronological ordering often present in the earlier
memory system, children are progressively able to identify
and report on the causal relationships in the event (Farrar
& Goodman, 1990). A causal relation exists when one action
must be performed before another, such as getting food at a

restaurant before eating it. When an event includes causal relationships which are concrete (such as the preceding example), the event is remembered more coherently (Farrar & Goodman, 1990).

Narrative memories about children's experiences are good sources of data for examining the meaning-making processes in young children. Remembering their personal experiences is critical to children's developing fund of knowledge. As children report on a past event, they draw upon cognitive skills such as establishing and maintaining a sequential order and representing the main aspects of the event in order to render it coherent to the listener (Fivush & Hudson, 1991). Likewise, children use narrative as an act of "autobiography," to locate themselves within the culture, to identify with a family, and a community. These personal narratives constitute key perspectives the children hold of their social world (Bruner, 1990).

The individual memories people recall about unique events in their lives are variously termed in the literature as "episodic" (Tulving, 1983), "flashbulb" (Brown & Kulik, 1977), "personal" (Brewer, 1986), and "autobiographical" (Nelson, 1981). For the purposes of this dissertation, the term *narrative memory* is employed. The conditions of narrative memory include: (1) children report their memory in oral narrative discourse (and through drawings on which their verbal narratives are written; (2) the memory is an intentional retrieval; and,

(3) the event that is recalled is an episode, a one-moment-in-time occurrence.

Classroom Discourse

The third body of research that is pertinent to this study is the work of sociolinguists and others on teaching as a linguistic process, also known as classroom discourse. Children's ability to make their knowledge socially available is intricately connected to their communicative competence. There has been a long tradition in psychology of equating thinking with language, with the corollary assumption that one needs a word before one can form the relevant concept (Clark, 1984). Others (Slobin, 1979; Snow, 1977; Brown et al., 1977; Sinclair, 1982) argue the reverse--that children at least begin to form concepts before they look for words for them. Nonetheless, there is clearly reciprocity in the relationship and sociolinguists have sought to define this relationship in many social settings including classrooms. Cazden (1984) describes the relationship as triadic in her review of this research in the 1984 Handbook of Educational Research, stating: "speech unites the cognitive and the social."

Two research traditions have developed among those studying the role of oral language in education: (1) the description and definition of the teaching process (Cazden, 1988; Heath, 1983; Hymes, 1982); and (2) the process-product research which attempts to define which teaching

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processes are effective in relation to desired outcomes

(Dunkin & Biddle, 1974; Koehler, 1978). This dissertation,

which examines the social context features of a narrative

memory event in a classroom, is a description of the

teaching process, although the researcher borrows from the

process-product tradition in the sense that a pilot project

has been used to identify specific critical context

features which contribute to meaning making.

The research of those studying classroom discourse has

added another element to the equation between speech and

cognition. In addition to the ideas and the language,

children must learn the social context and participation

cues which are present in all settings. Communicative and

cognitive participation in the discourse is guided by

contextualization cues. Green (1983) presents a set of

assumptions and constructs derived from the research

literature on classroom discourse on which the independent

variables of this study were originally based.

1. Face to face interaction, between the teacher and
   children, and between children, is governed by
   context specific rules.

2. Activities have participation structures with
   rights and obligations for participation.
   Contextualization cues are the verbal and
   nonverbal cues that signal how utterances are to
   be understood, and inferencing is required for
   conversational comprehension. Rules for
   participation are implicit, conveyed and learned
   through the interaction itself.

3. Meaning is context specific.

4. Frames of reference are developed over time and
   guide individual participation.

5. Complex communicative demands are placed on both teachers and students by the diversity of classroom communicative structures. (Green, 1983, pp. 174-184)

Thus classroom communication is much more complex than it appears on the surface. Teaching and learning is a communicative process composed of academic and social context demands (Green, 1983; Erikson, 1975; Bremme, 1982). The latter of the two, the social context demands, are of particular concern in this study. Social demands consist of the participation structure that governs the sequencing and articulation of the interaction. The contextual demands include the *institutional* and *cultural* demands and obligations; the *local context,* which signals what the immediate event is; the *physical* context; and the mutual, *biographical* context which is the history of teacher/child interaction (Erikson & Shultz, 1977; Gumpertz, 1977; Mehan, 1979; Phillips, 1972; Sinclair et al., 1975; Shultz, 1979). Teachers and children must balance these contextual demands simultaneously.

Most of the research on classroom discourse is grounded in the concept that people become environments for each other (Dore & McDermott, 1982). Teachers and students construct the communicative context not only through routine classroom conventions, but through everything they say and do in the course of the interaction. All interactional behavior has the potential to signal a change in the context. Guthrie (1981) captures this concept in the following:

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On the basis of the cues, people in interaction
develop an idea of what the context is at the
moment; in a sense, they define the context.
Because in the course of the on-going inter-
action, the context may change from moment to
moment, their definition of context may also
change. It is partly because of these momentary
definitions, that people are able to know and
decide what is going on. How actors shape their
discourse shows what they really understand the
task to be; what they do shows what they
understand is going on. (p. 6)

For the purposes of this study, the researcher will

examine specific features of classroom discourse which have

been described by Cazden (1988) and in a previous studies

by researcher of discourse styles in preschool classrooms

(Perry, 1987; Perry, Cain, & Minor, 1985). The four main

context features of the discourse style that were

identified as influencing the child's ability to express

his ideas are described in the following section.

Context Features

Four features of the social context have been

identified as positive contributors to the child's ability

to remember and report on past experiences. These context

features--valuing child meaning, personalizing/

contextualizing, the conversational discourse format, and

peer contributions constitute the independent variables of

this study. This part of the review of literature

addresses the research which connects each of the four

context features to the meaning-making process.

Child Meaning

The child's meaning system is equated with cognition
in the sense that it draws upon all aspects of cognition
when children express their interpretation of their
experience and ideas about that experience (Nelson, 1985).
In its broadest sense, this is a study of meaning making.
The following section provides an explanation of meaning
making and defines the parameters which were used in this
research.

Bruner places meaning-making and meaning- using
processes as central to understanding the human mind, and
states that psychologists are returning to the deeper
objective of understanding mind as a creator of meanings
(Bruner, 1990). He describes the meaning making process as
a negotiable transaction (Bruner, 1986). Children
construct their own views of the world as they interact
with those around them.

> Most of our encounters with the world are
> assigned for interpretation. . . . When we are
> puzzled about what we encounter, we renegotiate
> its meaning in a manner that is concordant with
> what those around us believe. (Bruner, 1986, p.
> 122)

It is through the social negotiation of the child's
interpretation that a child makes meaning. As a child
participates in events in his/her family, community, and
school he/she is taking part in the "public process":

> By virtue of participation in culture, meaning is
> rendered public and shared. Our culturally
> adapted way of life depends upon shared meanings
> and shared concepts and depends on shared modes

of discourse for negotiating differences in
meaning and interpretation. (Bruner, 1990, p.
12, 13)

Further, Bruner states that children must be able to

share their meaning and make it socially accessible.

In this process meanings are not to his advantage
unless he[the child] can get them shared by
others. We live by public meanings and by shared
procedures of interpretation and negotiation"
(Bruner, 1990, p. 13).

It is actually as those meanings are realized in everyday

life, that they take form and become part of the child's

conceptual and behavioral system, interpretable by those

around him. The problem is to explicate how the child

organizes the contributions of people and the world in

order to operate within the larger meaning community

(Nelson, 1985). As children move into school settings,

teachers need to engage and value children's minds, and

strengthen their dispositions to talk about and reflect on

their own ideas (Katz, 1989).

In the pilot study of 36 classrooms(Perry, 1987),

teachers in child-centered classrooms communicated with

sincerity their interest and belief in the children's

ability to remember and perform cognitively. When teachers

supported the children's initial efforts and encouraged

them to proceed with their own chosen topics without

interruption, the children were usually successful in

completing the task. Children's belief in themselves as

competent individuals is especially vulnerable in the early

school years (Gordon, 1977). In schools, children are more

often viewed as receivers of knowledge, rather than as active participants in the construction of knowledge (Barnes, 1982). The context feature, child meaning, that is studied in this research consists of the valuing of children's personal knowledge. Included in this feature is the teachers' demonstration of their appreciation of the value of understanding the child's unique perpsectives in classroom learning.

Personalizing Contextualization/Decontextualization

The second context feature being examined in this research is personalizing, also known as contextualizing. For purposes of clarification, since the word context is used to describe the independent variables in the study, this feature is called *personalizing*. Personalizing exists when the child and teacher bring personal aspects of the context of the child's original experience into the discourse.

Context is most often thought of as the physical context and this is surely the most important support for the earliest of speakers. Snow (1983) gives examples of personalization in early utterances: (1) language is confined to the immediate concrete environment; (2) language is used performatively ("brm, brm" while moving a car); and (3) young speakers assume shared knowledge in their conversation. Snow also states that young children use historical context, which she defines as the children's

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previous experience with some event, place, word, or text

which can support their current interpretation or reaction.

Young children use physical and social context to make

sense of their world. When talking about something that

is out of sight, in order to make their own understandings

of the world clear to concerned adults, young children must

recreate aspects of those social and physical contexts.

> Since the child cannot relive earlier
> experiences, he must somehow bring earlier
> experiences into present situations to act as
> some kind of measure or model. This is made
> possible only by finding some means of
> representing earlier experiences in ways that
> allow selection of the elements that are relevant
> to the new situation (Tough, 1979, p. 104).

Personalization is best exemplified by the early

utterances of young children. DeLaguna (1970, 1972) states

> just because the terms of the child's language
> are so indefinite it is left to the particular
> context to determine the specific meaning for
> each occasion. The actual utterance signifies a
> partial meaning which is further specified and
> made explicit by the physical and social
> situation, and accompanying actions--
> personalizing. (p. 43)

Once children are communicatively competent, oral

language becomes the vehicle for carrying meaning,

although, even then, sociolinguists state that social

context is the most powerful determinant of the verbal

behavior that carries the child's meaning (Cazden, 1984;

Heath, 1983; Hymes, 1972; Stubbs, 1983). Young children,

less experienced users of oral language, are at a

disadvantage when trying to convey their personal

perception through words alone (Bruner, 1964; Tough, 1979).

When they are encouraged to personalize their ideas, their
meaning becomes more coherent.

Rogoff and Lave (1984) introduce a collection of
studies which highlight the role of context in cognition.
Context, which includes the problem's physical and
conceptual structure, as well as the purpose of the
activity, and the social milieu in which it is embedded, is
an integral aspect of cognitive events. The cognitive
processes may differ according to the domain of the
thinking, the problem, or specifics of the event context.
The idea that cognitive skills seem to fluctuate as a
function of the situation, and the nature of the problem,
has been demonstrated by many (e.g., Cole, 1977; Feldman,
1980; Greenfield, 1984; Wertsch, 1984). The child's
interpretation of the context in any particular activity
appears to be very important in facilitating or blocking
the application of skills developed in one context to a new
one.

Yet, early in life, and especially in school settings,
children are expected and asked to decontextualize (Cazden,
1988). The relationship between personalization, decon-
textualization and cognitive development is complex. In
order for the young child to communicate with less familiar
partners, some aspects of meaning must be conventionalized.
Decontextualized language becomes the responsibility of
teachers and parents of children in their first years of
schooling when the child confronts print. Olson (1977)

describes this transition from utterance to text as one of
increasing explicitness with language, increasingly able to
stand as an unambiguous or autonomous representation of
meaning. Child language is gradually freed from dependence
on the perceived conditions under which it is uttered and
heard, and from the behavior which accompanies it. The
ultimate in literacy is only achieved through the most
decontextualized state--first reading, then writing (Olson,
1977).

Different assumptions about the locus of meaning are
central to this issue. Olson (1977) reviews three opposing
views on the locus of meaning. One theory claims that the
meaning of the text, or narrative, is in the text itself.
Chomsky (1957, 1965), the most outspoken of this view,
states that the meaning of a sentence lies in the base
grammatical structure (deep structure) and does not depend
on private, referential,or contextual knowledge. Since the
meaning is in the sentence per se, nothing is added by the
listener: meaning is conventionalized by universal
grammatical structures.

In direct opposition to this view, is the assumption
that "sentences do not have fixed meanings, but depend in
every case on the context and purpose for which they were
uttered" (Olson, 1977). Grice (1957) describes the two
perspectives as either "sentence meaning" or "speakers
meaning."

The third view (Chafe, 1970) borrows from both preceding theories, claiming that the locus of meaning resides in the semantic structure of a sentence.

> This semantic structure is necessarily a part of
> language users "knowledge of the world," and
> language can serve in functions precisely because
> such knowledge tends to be shared by speakers.
> Thus comprehension of a sentence (and the
> speaker's meaning) involves to some degree the
> use of prior knowledge, contextual cues, and non-
> linguistic cues. (Olson, 1977, p. 259)

Olson asserts that learning to represent knowledge through language is primarily a matter of learning to conventionalize more and more of the meaning in the speech signal, not merely elaboration of a child's utterance, but being able to assign a meaning to the utterance detached from the context. The process is achieved only later in the school years because of the complexity involved in differentiating the sentence meaning per se from the speakers meaning. "Children are relatively quick to grasp a speaker's intentions, relatively slow to grasp the literal meaning of what is, in fact, said" (Olson, 1977, p. 275).

The relationship between personalization of meaning and schooling is vividly portrayed by Shirley Brice Heath (1983) who describes communication contexts as face-to-face networks in which children learn the ways of acting, believing, valuing,and constructing meaning in their lives. Her ethnographic view of context is comprehensively intertwined within the community with a focus on social relationships. This network includes:

the boundaries of the physical and social
community in which communication to or by them is
possible; the limits and features of the
situations in which such communication occurs:
the what, how and why of patterns of choice
children can exercise in their uses of language,
whether in talking, reading, or writing. (Heath,
1983, p. 6)

Through her record of the natural flow of community

life, the power and inevitable influence of context on

child language and understanding is affirmed. For example,

in one community she studied, Trackton, children, as they

are "coming up," become involved with many families who

care for them. This offers a wide variety of contexts and

opportunities for children to practice the interpretation

of motives, intentions, and learn to "give performances"

and play roles to fit the context ("to tease, defy, boss,

baby and scold"). Information and voice quality rather

than language for or actual words specify their social

function and response.

The non-articulated cues in the environment must be

picked up and learned by even the youngest toddlers in

order to survive. "He gotta know, gotta learn, he see one

thing, one place, one time, he know how it go, see sump'n

like it again, maybe it be de same, maybe it won't" (Heath,

1983, p. 84). The children are asked to make comparisons,

and learn to use language to establish the context of any

newly introduced item, in order to find out whose it is,

where it came from, and how it is used. Rather than

learning a set of conventional attributes

(size,color,shape) and the commensurate language labels,

these children are learning a highly personalized view of
objects and relationships which can then be compared to
other similar contexts in non-specific ways.

These examples of ways of using language to
effectively learn about and interact with their environment
in their community were in no way related to the schools'
expectations of displaying knowledge and language use.
Heath (1983) therefore presents the "contextual" challenge
for these children when they enter school. They must learn
to *decontextualize* as they develop from utterance to text.
But they must also become *bi-contextual* as they learn that
the classroom context demands a different way to display
their knowledge, a different use of their language. They
learn they should use the conventional comparisons when
asked to talk about what they know.

The two processes, decontextualization and bi-
contextualization are different, and children entering
school must learn to do both. In the first,
decontextualization, children must learn to establish
meaning within the words themselves in the absence of the
objects or situations to which the words make reference.
In the second, bi-contextualization, children must learn to
use language in new ways as the classroom context demands.

In the pilot study conducted prior to this
dissertation (Perry et al., 1987), the researcher found
that children who were allowed to personalize their
accounts of their meaning were more coherent, confident of

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their own information and, ultimately better able to relate their ideas to the conventional, more decontextualized concept.

Discourse Format

The third independent variable which appears to be important in the child's ability to retrieve a memory is the discourse format that teachers employ in their classrooms. Sociolinguists and educators studying school talk have found that the traditional classroom discourse format is designed to produce correct answers to teachers' questions, rather than using language as a potential for expressing child meaning (Cazden, 1984, 1988; Goodlad, 1984; Stubbs, 1983; Tough, 1976).

> A great deal of what goes on in the classroom is like painting-by-numbers- filling in the colors called for by the numbers on the page . . . [teachers] ask specific questions calling essentially for student to fill in the blanks. (Goodlad, 1984, p. 108)

In a prior study of 36 preschool teachers on the functions of language in the preschool classroom , this researcher also found that children rarely have opportunities to use language to reason (Perry, 1984). Two main kinds of discourse formats were found in these classrooms--the traditional, classroom format, and the Child-centered format. While all teachers practice a combination of discourse styles, it was found that one discourse format predominates. The discourse style in which children seemed most able to express their own

meaning was the Child-centered format. Features of that style were used in this research as the independent variables. The discourse style in which children were least able to express their meaning is the Traditional classroom format and was used as a contrast to the Child-centered format. Since the Performed Narrative defines only the child's contribution to a discourse format, it was not used for this research. The traditional classroom format is reviewed first as it is the most familiar teaching pattern and can serve to help explicate the conversational pattern.

Traditional Classroom Discourse Format

The findings of a study sponsored by the U.S. Department of Education (1991) found that in mainstream American classrooms:

> teachers do most of the talking in classrooms, making about twice as many utterances as do students . . . and that when students do respond, typically they provide only simple information recall statements. (p. 8)

In the Traditional classroom discourse, children must learn to reply with the teacher's expected answer, the right answer and know when to answer (Mehan, 1979). Although less predominant, this kind of discourse is also found in prekindergarten programs. This researcher (Perry, 1984, 1987) found that in classrooms where the teachers practiced a more traditional and formal style of classroom discourse, children sat listening for long periods of time,

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waiting to be called on to speak. Teachers predominantly asked children for one word or brief replies to their questions (Perry, 1984). In order for the teacher to have time to "cover" the curriculum material, short question and answer periods were controlled by the teacher. Children learned not to give any more information than was requested by the teacher.

In traditional classrooms students rarely ask the questions or get a chance to "romp with an open-ended question" (Goodlad, 1984, p. 108). Teachers in these settings almost always initiate the questions and evaluate the child's response as okay or not okay, either directly or indirectly. "The three-part sequence of teacher initiation, student response (brief), teacher evaluation is the most common pattern of classroom discourse . . ." (Cazden, 1988). Barnes (1986) has asked the question, "how much of what goes on (in the discourse) contributes to child learning?" As one elementary school curriculum guide stated, "the ability to listen decides to a great extent how well the student will learn" (Competency-based Curriculum, 1987).

There is a perception in these classrooms that "students require drill, review, and redundancy to progress academically" (Brophy & Good, 1986). In the pilot study, teachers controlled the discourse direction with their questions and stopped the discourse when they deemed the appropriate words regarding the topic had been stated by a

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child. While all teachers have certain rights and
obligations regarding the initiation, structure and
direction of conversation during classroom lessons (Edwards
& Furlong, 1978), this group of teachers allowed no
digression to explore the children's understanding. When
the children said the word or words the teachers were
looking for, the teacher often cut the discussion, asked
all the children to repeat that word and then moved on to
the next question. Sometimes children were interrupted in
the middle of their sentence. Teachers in these classrooms
might ask open questions but are actually looking for
specific answers only. For example, a teacher in a
kindergarten classroom asked the children what they knew
about magnets, but discounted all answers until a child
responded that they attracted metal things. All the
children were asked to repeat, "objects made of metal."
Barnes (1982) calls these questions "pseudo questions." As
opposed to real questions where the teacher is asking for
information, these are like test questions to which the
teacher has the answer and the child's task is to figure
out and give that particular answer.

Teacher nomination (calling out the name of the child
whose turn it was to speak) occurred in all classrooms in
the pilot study, but teachers in the formal traditional
style often nominated children whom they thought would
state the answer the teacher wanted to get on the floor
(Perry, 1984). Additionally, children in this discourse

format, were not allowed to call out or speak spontaneously. Children who were quiet and gave the appearance of listening were more likely to be called on.

Sociolinguists and educators have recorded the change of the focus in oral language from form, how you say something, to function, what you are able to accomplish with the language (Linfors, 1989; Green, 1984). However, the discourse format in these traditional classrooms was marked by equal or more attention to the form of the language than to the content of what the children were saying. Teachers frequently asked children to repeat statements, to say it in a whole sentence or to correct their syntax.

The last descriptor of the traditional classroom format is the manner in which teacher use their power and authority with the children. "In a well-ordered classroom, the teachers' turns at speaking are taken as and when he chooses" (Edwards & Furlong, 1978). In the pilot study, teachers used non-verbal glances and direct instruction to make sure children were looking at the teacher, even when other children were speaking. Teacher's talk occupied 85% of the dialogue. Teachers often took the prerogative to interrupt the children, to change topic, correct grammar, for clarification, or to maintain classroom control. Most times, this disruption was disorienting to the flow of the child's thinking and talk.

The preceding discussion of traditional language format was used as a contrast to highlight the context feature, Informal, Conversational, format.

Informal, Conversational Format

Teachers in the Child-centered classrooms who practiced the informal, conversational discourse format were generally more successful in eliciting ideas from their students (Perry, 1987). This conversational format was marked by several characteristics which stand in marked contrast to the discourse features of the traditional classroom format.

Sociolinguists studying classroom language advocate a "shift from recitation to something closer to real discussion . . . in which ideas are explored, rather than answers to teachers' test questions provided and evaluated . . . more like informal conversation" (Cazden, 1988, p. 54, 55). This style of discourse was evident in the child-centered classrooms where teachers tended to engage the children in a conversation, each taking turns talking. The goal of these teachers was to find out what the children know, and expand the children's contribution to the conversation, not to groom the children to say a specific set of answers. Therefore, the teacher cued into the child's meaning to question, extend, and clarify the child's meaning when the children finished their turn. When asked to respond, the children seemed to interpret the

request as a genuine question for information, interpreting the task as "tell me what you understand, the central meaning of your knowledge."

Discourse such as this, described by Tharp and Gallimore (1988, 1989, 1991) as "instructional conversations," are designed both to stimulate children to think and yet appear to be natural and spontaneous language interactions (Goldenberg, 1991). The teachers in the pilot study usually initiated the discourse with a general topic (e.g., What do you know about Native Americans?). They did not have one answer in mind, and accepted a variety of responses. Once they gained the floor, the children controlled their own topic contributions, rather than waiting for the teacher to guide the children's talk with progressive questions.

Similar to the research on instructional conversations (Goldenberg, 1991), the teachers, using conversational form, attempted to make the children feel as valued partners in the discourse, maintaining eye contact and listening attentively to the child's narration. Children were allowed to spontaneously contribute to a discussion in any order, although, if another child was talking, the teacher usually protected the right of the child who was speaking to keep the floor until he or she was finished. As a rule, they did not correct a child's grammar and patiently waited if a children made false starts, and needed to repair their narration.

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Teachers practicing the informal, conversational discourse style usually chose to work with children in small groups (ten children or less), increasing the opportunity for children to participate in the discussion. Teachers made efforts to set up a relaxed atmosphere. For example, children were not required to sit in a certain way, or told where to place their arms and hands, as long as they were engaged, and did not interrupt the flow of discussion or disturb another child.

Peer Contribution

The fourth context feature examined in this dissertation which is deemed facilitative to the meaning making process is peer contribution. Children are ordinarily not permitted to "chime in" and talk with other children in traditional classroom discussions (Cazden, 1988). Although peer conversation is the order of the day in "choice times" when children are free to move into a variety of learning activities set up in the classroom, this kind of peer interaction is usually unacceptable in academic lessons. In large-group instruction with the teacher in control in the front of the room (the predominant mode for academic discourse) children are asked to sit quietly and pay attention (keep eye contact) to the teacher even when a child is nominated to speak (Cazden, 1988).

However, in the pilot studies in classrooms where teachers practiced child-centered style of discourse, the teachers not only permitted children to participate during official lesson times, but they often encouraged children to "chime in." Children were asked to look at the child who was speaking (not the teacher), and encouraged to question or comment on the content of their peer's narration. Often children would comment that they too had a similar experience, or might add on to the child's narration. The peer participation in each other's responses served to stimulate the original speaker to elaborate on the topic. At the very least, the child was pleased by the teacher's recognition in "official class time" that their ideas were worth discussing with their classmates. The meaning that was carried in the collaborative effort was richer than a single response might have been.

The role of this form of social interaction in cognitive development is addressed by both Vygotsky and Piaget. Vygotsky holds that "the higher functions of child thought at first appear in the collective life of children in the form of argumentation and only then develop into reflection for the individual child" (in Cohen, 1986). Piaget emphasizes the role of cognitive conflict and the importance of confrontational points of view for the elaboration of logical thought (Kamii & DeVries, 1980). Cazden (1988) suggests that there are four potential

benefits of peer participation and interaction. Children
can become catalysts for each other during the discourse
and stimulate more advanced thinking, as was also found in
the pilot study (Perry, 1987). Secondly, in concert with
the concept of the "zone of proximal development," peers
can perform more advanced tasks when working together than
they can on their own. This concept can be applied to the
production of meaning, as well as physical tasks, as
children work together to "co-produce" the meaning. The
third function of peer participation is that of serving as
an audience to give immediate feedback to one's ideas. As
the children give voice and form to their thoughts,
questions, or confusions from peers serve to help them self
correct misunderstandings, or "repair" misspoken
statements. The fourth and final benefit of peer
participation is what Douglas Barnes calls exploratory talk
(Barnes, 1976). Young children often begin to speak
without their answers fully intact. In a way, children are
rehearsing their knowledge, expressing exploratory ideas.
This treats the meaning making discourse as a process
rather than a product. At the end of this process is what
Barnes calls the final draft, and it is this final draft
that the child brings to his or her next experience with
this subject matter. Exploratory talk is more likely to
occur when peers constitute a large part of the audience.

Event Analysis

This research employs an analysis strategy called event analysis. The precedent and rationale for using this strategy comes from the work of Rogoff, Mistry, Goncu and Mosier (1993). Rather than observing the teacher, children, and context separately, event analysis "focuses on activities as the unit of analysis and assumes that developmental processes of individuals simultaneously constitute and are channeled by social and cultural processes (Rogoff, et al., in press, p. 24). Event analysis captures both the dynamic character of meaning making as well as accepting the premise that all players in an event contribute reciprocally to establish the meaning of the event. Both Vygotsky (1978) and Dewey (1916) address the need to maintain the integrity of the whole event. When the contributions of each participant in the interaction are defined separately from each other as well as from the social context, it becomes difficult to capture the meaning of their actions.

> the event as the unit of analysis preserves the
> inner workings of larger events of interest,
> rather than separating an event into elements
> that no longer function as does the living unit.
> (Dewey, 1942, p. xx)

A dynamic interaction may change the meaning of the terms used depending on the context and intent of the speaker. By recording what both children and teacher do and say in response to each other, a more realistic appraisal of the retrieval event can be conducted as the activity proceeds.

The separation of individuals' behaviors from the
interactional context requires each event to be
coded in terms of surface characteristics rather
than in terms of the purpose that actions serve
for the participants . . . a static code that
separates the behaviors of the participants has
to assign a behavior the same meaning wherever it
occurs ignoring the fact that in communication,
the meaning of actions change as circumstances
change. (Rogoff et al., p. 24)

Also, by rating the entire interaction, rather than

focusing on particular behaviors of either the teacher or

children, the meaning-making processes were described as a

whole event. Event analysis also respects the concept that

production of meaning by adults and children is a dynamic

process..." shifting the focus from thought as a product,

to thinking as a process; from language as a symbolic

system to speech as the use of language in social

interaction (Cazden, 1988, p. x).

C H A P T E R   I I I

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METHODOLOGY

The purpose of this study was to describe the nature
of the guided participation and meaning making occurring
when children recall an event from the past, and, to
determine if four specific features of the retrieval event
context contributed to more coherent and complete memories.
The specific hypotheses of the study follow.

Hypotheses

It was hypothesized that the young child's ability to
remember and communicate an event is strongly influenced by
the degree to which four features of the social context
(child meaning, personalizing, conversational format, and
peer contribution) are present during the retrieval
process.

Hypotheses

1. The ability of the young child to remember and report
    a past event will be enhanced when the child
    understands that he or she is expected to focus on his
    or her <u>own information/interpretation</u> of a past event
    (as opposed to the teachers' meaning).
2. The ability of the child to remember and report a past
    event will be enhanced when child and teacher

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personalize and contextualize the child's narration of the memory. The meaning of the memory narrative will be made more explicit and complete when the child is encouraged to report context information and personal details of the particular remembered event, and/or accompanying behaviors such as gestures, actions, sounds or changes in voice quality.

3. The ability of the young child to remember and report a past event will be positively related to discourse formats which are informal, conversational, and relaxed.

4. The ability of the child to remember and report a past event will be enhanced when peer participation is encouraged in the retrieval context.

Overview of the Methodology

The researcher employed a combination of both quantitative and qualitative methodology in order to examine and test the basic premise and hypotheses the study sought to address. The structure of this study is an ethnographic design inasmuch as the researcher used "investigative strategies which are conducive to cultural reconstruction and are empirical and naturalistic in nature" (Goetz & LeCompte, 1984). Ethnographic methodology was used to collect the data in order to describe the social context, processes, actions, discourse, and feelings of the participants. The researcher used videorecording to

capture firsthand accounts of the narrative memories as they were elicited in the preschool settings during a typical activity (making a memory book) with their teacher. The investigator made a special effort to avoid purposive manipulation of the variables (context features surrounding and constitutive of the memory retrieval).

The actual unit of analysis in this study was the total memory retrieval event, so as not to treat the child or teacher as separate entities, but rather as an interactive unit to be studied as such in their surroundings. The teachers were not instructed how to elicit the memories aside from the broad steps outlined in the Memory Collection Procedure, which was designed to resemble an activity that might naturally occur in a preprimary classroom. Discourse analysis techniques and a coding scheme were utilized to capture the inter-relationships of the participants, and describe the processes occurring in the two stages of the memory retrieval. The major construct and hypotheses were tested using experimental techniques to enhance the generalizability of the findings, replication of the study, and reliability of the results (Denzin, 1978).

The researcher further analyzed the data with an in-depth narrative description of a subset of the population. This description includes the patterns and salient aspects of the narrative memory activity. This discussion goes beyond the specific hypotheses, and presents an elaborated

accounting which contributes to a richer understanding of the processes of apprenticeship and guided participation that occur when teachers help children communicate their knowledge of past events.

Subjects

Since the results of this study are believed to emerge from the sociocultural contexts in which the participants were situated, an extended discussion of the population from which the sample was drawn is warranted. The subjects included 36 teachers and 199 three-, four- and five-year-old children from a variety of preschool and kindergarten classes. The children and teachers represented diverse socioeconomic communities which include (1) urban, working class African American; (2) urban, working class Hispanic; (3) urban, middle class, mixed ethnicities; and (4) rural, working class white families. The teachers in the sample include 16 urban, middle class African Americans; 6 urban, middle class, white teachers; 11 rural, white, middle class teachers; and 3 Hispanic teachers. A comparable number of teachers whose natural teaching style was judged to be predominantly child centered/meaning format, and teachers whose natural style was judged to be predominantly traditional/classroom format were selected from each of the five populations in order to examine the context features which characterize these formats (see Table 1).

Table 1

Distribution of Subjects by Age and School Setting

Setting	Teachers	3's	4's	5's	total
Urban Public School (primarily African American)	6	-	4	32	36
Private Day Care (working class)	8	15	25	3	43
Private School (middle class)	7	11	19	7	37
Head Start, rural	9	18	29	3	50
Head Start, urban	6	8	16	9	33

The 199 children and 36 teachers from five different socioeconomic settings were distributed as indicated in Table 1. The mean age of the children was 4.6.

The researcher contacted the supervisors of the teachers in each of the five settings to give them information regarding the project and secure permission to conduct the study in their schools. (See Appendices A, B, C.) The supervisors were asked to nominate equal numbers of teachers of traditional, academic persuasion and those of developmental, child centered philosophy (using criteria established in the Pilot Study). The researcher also observed in the classrooms and concurred with the judgement of the supervisors. The researcher then visited each teacher to explain the project. Teachers who agreed to participate sent letters to all parents of children in their class with an explanation of the project and parent forms to grant permission for their child to participate in

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the research, and be videotaped. On the first day of data
collection, the researcher randomly drew eight children's
names from the pool of children whose parents had granted
permission to participate in the study. All parents agreed
to permit their children to participate in the study.

Preschool Settings

The preschool settings included Head Start centers,
both rural and urban, public school pre-kindergarten
classes, preschool classes in private schools, and private
day care centers in Washington D.C. and the Appalachian
Mountains.

Head Start

Fifteen of the teachers and 83 children were located
in Head Start centers. All the centers offer programs
described as developmental, and include a choice time where
children can engage in play with blocks, art activity,
manipulative toys, books, and work in small and whole
groups at teacher initiated activities. Children are
served breakfast and lunch and families participate in
parent education programs conducted at the centers. All
classes of 16-20 children are staffed by a teacher and an
aide and occasional volunteers.

Head Start, Urban. Six Head Start classes located in
Washington, D.C., were used in the study. Three of the
classes are housed in elementary schools, and operate only

during the school year. One of these classrooms was designated as an early childhood demonstration center for the school system. The remaining three centers are under the direction of the Department of Recreation, which has 25 preschool classrooms throughout the city, and are open all year. Children attend the centers from 8:30 a.m. until 3 or 5 in the afternoon and most children are walked or dropped off at the center by the parents. All these programs serve urban low income neighborhoods.

Head Start, Rural. The nine rural head start classes participating in the research were located in the Appalachian Mountains, 30 miles from Morgantown, West Virginia, in Garrett County, Maryland. The centers are housed in one elementary school, churches or community buildings spread out over a large geographical area, so each center is fairly autonomous. The children are bused great distances to reach the head start center and begin arriving at the centers at 8:30 a.m. and leave at 2:30 p.m. The program operates for nine and a half months.

Public School Prekindergarten

Six classes participated in the study from the Washington, D.C., pre-kindergarten program, which was established in the mid sixties to serve four-year-olds. Each of the 35 classes comes jointly under the auspices of the school principal and the Early Childhood Office of the school system. While the Early Childhood Office has

recently been training a core of teachers in a developmental approach, the curriculum tends to be more structured and in concert with a traditional academic focus. For example, children follow school rules, participate in assemblies and "special teacher activity" (art, physical education, etc.), spend more of their day in teacher directed activities, and less, or sometimes little, in free play. There is minimal parent involvement in the classroom or school. The classrooms are generally spacious and well equipped.

Private, Middle Class Settings

The private middle class settings included a well-known Washington, D.C., private school, two urban and one rural child care center serving middle class families.

National Child Research Center

Three classes were drawn from a private school serving toddlers through six year olds. Located in an affluent Washington, D.C., neighborhood, this school has been associated in the past with government agencies with whom they conduct research in child development. Situated on rambling grounds, this spacious mansion was remodeled to serve up to 200 children and is well equipped, including observation booths. Over the years, aside from the research, the facility has housed innovative programs such as mainstreaming deaf children, a unique masters degree

program in early childhood education, science camp, and
currently has a grant to develop special curricula for
handicapped children. The curriculum is child centered and
developmental in nature.

Urban Child Care Center

Two classes were located in an inner city day care
center and are housed in an old building that previously
was a public school. Children are taken across the street
for outdoor play in a public playground. Children attend
from 8 in the morning until 5:30 p.m. The parents are
predominantly government workers who drop off their
children on the way to work and pick them up at the end of
the day. The curriculum is largely developmental, although
the center lacks the full range of materials to support a
full range of choice of activities.

Rural Child Care Center

This center was located and run by the Mennonite
Church in a rural mountain area. Both the teaching staff
and families served by this center are church members. The
program operates from 8 a.m. until 6 p.m. in a large hall
of the church. The curriculum includes some choice time
but equipment is somewhat meager and, therefore, children
spend a fair amount of the day at tables in teacher-
directed activities or games on the lovely wooded
playground area adjacent to the church.

Children

Urban, African American, Working Class Children

The 59 three-, four-, and five-year-old children in
this group lived predominantly in apartment buildings in
low-income neighborhoods in the inner city of Washington,
D.C. The families included recent immigrants from African
countries and all are high school graduates. The parents,
a large proportion of whom were single, working parents,
travel out of their neighborhoods to work, but attend
church, shop, and socialize in their own city communities.
The children were often walked to school by older siblings
who also babysit for them when they got home. After-school
activity was most often watching television, since the
violence on the streets has limited their play on public
playgrounds or on the streets. Many of the children had
attended day care since infancy to permit the parent to
work.

Rural Appalachian Working Class

This group of 62 children lived mostly in isolated
rundown houses or trailers within large family units.
Grandparents either lived on premises or close-by and
frequently served as the primary caretaker for these
children. Winters were severe and children spent much of
their time travelling to and from the Head Start centers or
with parents on daily routines. All services, such as

doctors, schools, churches and grocery stores, entail long trips, and therefore health and education problems often went unattended. The children rose early to go to meet the Head Start van, and, after Head Start, watched the all-too-usual diet of cartoons and adult soaps on TV. Television also served as the dominant leisure activity for the parents, complemented by church socials and school gatherings, such as PTA and football games. Most of these young parents were high school graduates who also attended Head Start and whose family has lived in the area for many generations. For the children, the Head Start centers stood in counterpoint to their home lives. It was their first experience with a group setting with peers, and their bright, well-equipped classrooms, filled with literacy materials, stood in stark contrast to their dimly lit, poorly furnished homes, where they often shared a bed with siblings.

Urban Middle Class

This group of 55 Black and White (including Hispanic) preschoolers, were the children of predominantly federal government employees, college educated, who lived in the Northwest section of Washington, D.C., or the nearby suburbs. The parents spent time in the evenings and weekends with their children, going to the library, reading to them, going to the zoo or museums, etc., and the children are often taken on summer vacations or other trips

during the year. Children were driven to and from their child care settings by parents or in car pools, and frequently visited in each other's houses in the afternoons. Approximately half of these children were watched by housekeepers and babysitters, and, like their working class counterparts, spent long hours in front of TV sets.

The nine rural middle class children shared the above lifestyle, but tended to spend many hours accompanying their parents to church functions, or routine visits to the doctor or for shopping.

Teachers

All the teachers were nominated by their supervisors as potential participants, but only if the teachers were willing. Approximately 10% declined to participate (largely because it was towards the end of the school or Head Start program year and they felt they could not spare classroom time to carry out the project). Aside from the initial classification as traditional and child-centered, as is typical of any group of adult workers, each brought different personality and teaching styles to the classroom.

Urban Public School

This group of five African American and one White teacher were all college educated and include 2 men and 4 women in their thirties and forties. While one of the men

had taught Head Start for three years, and recently moved to the Washington, D.C., area from California, the remaining five have been teaching in the Washington, D.C., schools for 8-15 years. Three of the teachers were nominated by the public school Office of Early Childhood Education because of their commitment to a developmental approach to teaching which has been encouraged in the city schools in the past two years. These teachers had been trained in the "responsive classroom" approach, a theory of teaching and learning that emphasizes the social context in the classroom and setting up a "caring environment." One of these classrooms consisted of the children of crack-addicted mothers and had social worker and a psychologist and speech therapist as part of the support service to work with the families and children. The other three teachers practice what the Office of Early Childhood Education deem as a more traditional, academic, and teacher-centered approach. There was a focus on basic skills and the expected conformance to school rules was always present.

Private Working Class

This group of seven women and one man included three Hispanic teachers, two white, and three African American teachers, all between the ages of 29 and 50. All of them were high school graduates and five had taken some college courses, and two of these were juniors in college. Two of these teachers had no in-service training. They practiced

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a style of care which focused on kindness to the children but little in the way of educational goals. A third teacher, also with little or no training, worked in a child-care setting that was fairly structured with rigid disciplinary practice, and children spent a fair amount of time working at tables or desks on ditto sheets in whole group activity. The remaining five teachers worked in a large program in a Hispanic neighborhood of Washington, D.C. All of these teachers practiced developmentally appropriate and child-centered teaching with choice time when children could use blocks, art, water play etc. Two of these teachers were particularly sensitive to their young charges and were skilled in one on one interactions.

Private, Middle Class

This group of teachers included six women and one man, ranging in age from 27 to 43. All but one of this group graduated from excellent teacher education institutions. The teacher without college was active in the Mennonite church in which the child care center was located and had attended nearby Head Start preservice and inservice training. Her program resembled a Sunday School class where children were provided with interesting activities but without focus on language or cognitive development. The other six teachers had well-articulated curricula which included a full range of activities through play of science, art, math and studying the social world. All of

these teachers had been trained to promote socioemotional development of children as well as physical, cognitive and communicative competence. They were described by their supervisors as accomplished teachers.

Head Start, Rural

This group of nine White women, ranging in age from 27 to 48, had all lived in this Appalachian Mountain community for most of their lives. Although there are no close-by four-year colleges, all had been taking summer and evening courses at a local community college for many years and two had gone away and completed their college education. One of these teachers had taught in a local elementary school prior to coming to Head Start. All had received their Child Development Associate certification, an Early Childhood competency-based program instituted initially at the federal level. All of these teachers had been participating in an intensive pre-service and in-service program where the focus was on the most up-to-date strategies for promoting cognitive, social and communicative competence. With varying degrees, their classrooms were alive with children's work, including many examples of individualizing and focus on the individual child. Their teaching was guided by developmental goals for children and an assessment system which helped them to analyze progress on an ongoing basis.

Head Start, Urban

All six of these teachers are African Americans,
ranging in age from 34 to 53, and had lived in the
Washington, D.C., area for at least 20 years. Three of the
teachers had previously taught in the public school and all
but two were college graduates. All participated in
inservice training on a regular basis and had been teaching
in Head Start for at least 8 years. Three of the teachers
followed a fairly academic curriculum which was sent to
them by a central office. Their curriculum was theme-
oriented, following traditional study areas such as colors
or seasons, and so on, with less focus on the child. One
of the teachers was located in a demonstration elementary
school in Washington, D.C., and therefore had participated
in in-service training in a curricular program designed to
help teachers be responsive to the whole child.

Materials

Development of the Memory Collection Procedure

The procedure that was used to collect memories from
the children was developed by this researcher in an earlier
project on narrative memory at Harvard University (White &
Pillemer, 1984). Since no research of this nature was
available at the time, the methodology used to collect the
preschool memories was developed expressly for that study.
After a series of false starts in which several interview

techniques were tried, a four-step procedure was developed. In order to be helpful to future research in this area, a description follows of the initial attempts to collect preschool memories, the problems which were confronted, and the evolution of the procedure which was employed in this research.

This study was an extension of a larger project on personal memories of six-year-olds through college-age students, and, therefore, began with a modified version of the interviews used with the first and second graders. However, it quickly became obvious that the preschool children were not responsive to the request, "Tell me what you remember from last year." They were unclear about what a memory was, and often did not see much purpose to the task, and therefore were not interested. These children have not had the school experience of learning to respond to the kinds of questions that teachers ask.

In an effort to aide task comprehension, and make the procedure more meaningful to the children, it was decided to ask for a memory in one or two specific categories that would likely be familiar to the children. A list of memorable event categories was generated by the teacher population (who represented five different cultural groups). This list included subject areas that the teachers felt the children would have experienced as memorable (see Appendix A). The goal was to create a context which would serve as a trace memory of an event the

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child had experienced in the past. The teacher did not give a specific instance so as to avoid influencing the child's answer, but rather asked for the general category, such as "being sad" or "a trip you went on." Children were interviewed in a comfortable spot individually in the classroom by their teacher during free play in order to put the child at ease. The results, again, were not very successful. The children either did not respond at all, were anxious to go back to their previous activity, or talked about something that was of interest to them at the moment (not necessarily a memory).

The second modification was designed to elicit a specific event we know the child had experienced, and had talked about previously to the teacher. For example, one four-year-old had gone to Disney World several months before and was asked, "Do you remember any trips you've been on?" While this process was a little more successful, often the child did not produce the memory of the specific experience the teacher was trying to elicit. For example, a three-year-old girl had a very traumatic experience when she had been inadvertently left out on the playground when the children went inside. She was unable to get back in because of an automatically locking door. When her absence was discovered, she was found crying hysterically outside the door. She talked about it sporadically for weeks afterward. However, when this girl was asked about something that happened to her at school that made her

afraid and which made her cry, she was unable (or
unwilling) to recall the experience. She talked about
nonsense things and seemed eager to get back to her play.
This was surprising to us given the considerable research
linking memory to "emotionally charged" experiences,
coupled with the fact that the child had talked about the
experience prior to and following the interview. We
hypothesized that our failure to elicit memories was a
failure to establish adequate understanding, meaning, and
motivation in the task. We also realized that young
children find it difficult sometimes to convey complex
experiences through a verbal mode. Hence, the children
were offered an alternative and supplementary way to
produce their memories--through making a picture of them
(which turned out to be quite popular with the children).

It was decided to introduce the memory task during the
normal routine of the day, so that the children would know
that they were expected to participate. Teachers began by
requesting a specific action on the part of the children:
"We are going to make a book of some of our memories."
Making books is a familiar task in most preschool settings,
and served a familiar frame for the memory collection.
Concerted efforts were made to improve the understanding of
what a memory is, the nature of the task. Teachers were
asked to give a couple of different examples of their own
memories from their childhood, in order to illustrate
memory. We were concerned that children might copy the

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teacher's memory, and indeed it happened initially.
However, after the teacher pointed out that it was her
particular experience, unique to the teacher, and the
children were to tell something that happened just to them,
they by and large shared their own unique experiences.
Both teachers and children enjoyed this part of the task,
and it served to motivate and engage the children in the
memory retrieval.

Teachers were asked to pay close attention to the
wording of the task demand and subsequent constructed
understandings as the interaction proceeded. Instead of
asking the children to tell a story about a memory,
teachers were asked to use the terminology, "Can you
remember something that happened to you?", employing the
action words with which young children identify more
readily (Clark, 1984). Story has different meaning to
young children; that is, it implies, at best, elaboration
on the truth, the opposite of what we wanted the children
to do. It was interesting to note that even our most
experienced teachers used the word "story" somewhere in the
interaction and needed a reminder.

It was decided to introduce the memory activity in a
larger group of 8 to 10 children, so they could hear many
sample memories shared; non-memories could be clarified by
the teacher and children could provide a context for each
other in the memory sharing, a technique found useful by

McNamee (1984). The pictures were added to serve as a substitute or complementary means of memory production.

The final revision involved spreading the steps of the procedure over a period of a week. We learned it was unrealistic to expect immediate reporting of well-organized memories in one sitting. Even flashbulb memories must be reconstructed into a verbal or pictorial format. Spreading the process over a longer time span gave all the children time to contribute. Some children who were initially unable to remember an event offered complete verbal memories several days after the memory book activity was launched, or after they completed a picture of the memory with the teacher.

Final Memory Collection Procedure

The final Memory Collection Procedure included four steps. The first step, <u>defining the task for the children</u>, began with the teacher telling the children that they were going to make a book about their memories. Next, the teachers shared two different memories from their childhood.

The second step, <u>preliminary sharing of children's memories</u>, involved the children reporting on memories verbally and the teacher summarizing the memories on chart paper.

In the third step, <u>drawing a picture of your memory</u>, the children were given markers and paper to make a picture

of their remembered event. The final step, <u>writing the</u>
<u>child's narrative of the memory</u>, involved the children
retelling their memory of the event and the teacher
recording their narrative on the bottom of the picture or
adjoining page. The pictures and children's narratives
were then assembled into a book.

A more detailed description of the four steps of the
Memory Collection procedure can be found in Appendix E.

Procedure

Thirty-six teachers elicited memories from four to
eight randomly selected children in their classrooms or day
care settings serving five different socioeconomic
populations (see Table 1, p. 61). The data were collected
in the mornings in order that the children not be fatigued.
The teachers designated a time during the morning which fit
most appropriately into their schedule. All teachers,
except one, conducted the study in their own classrooms
when the children who were not participating in the study
were outdoors on the playground. One teacher took the
children to another classroom, as hers was right beside the
playground and was very noisy.

Prior to the day of the memory collection, the
researcher met with the teacher to answer any questions and
go over the simple four-step memory collection procedure.
Teachers were reminded of the procedure just prior to the
beginning of the memory collection. All teachers easily

mastered the process and indicated they enjoyed the
activity.

The data were collected in a four step memory book
activity (see Appendix B) wherein children were told they
were going to make a memory book and each child would
describe an event that happened to them in the past and
make a picture of their memory. During the first step, the
teacher established an understanding of memory by sharing
two of her own memories and suggesting possible topics for
the children. The children then shared their memories
verbally and the teacher recorded key parts of the
children's memories on a newsprint chart. At the end of
the sharing, teachers summarized each child's memory before
moving on to the next step.

During the third step, the children drew pictures of
their memory. In the last step, the narratives were retold
by the children as the teacher wrote their narrative below
the picture or on a separate sheet of paper for the memory
book.

All four steps of the memory book activity were
videotaped by the researcher who sat unobtrusively away
from the teacher and children. Due to child absences or
time constraints of some of the teachers, not all eight of
the randomly selected children participated in the study.
All teachers had a minimum of four children who
participated in the research.

Parents were contacted to verify that the remembered event had indeed occurred and only those memories which were verifiable were included in the study. Details from the remembered event were also verified by the parent or other adult who was present for the event. Aspects of the event that could not be ascertained were dropped from the rated transcript.

The data were assessed by two independent raters who used a coding system to rate the transcripts and memory book pictures and narratives of step four in the memory book activity. Information from all four steps of the memory book activity was used to constitute the data pool.

Data Analysis

The data analysis proceeded in five steps: (1) rating of the coherence and completeness of the child's memory; (2) rating of the context features of the retrieval event; (3) Instrument reliability measures were computed; (4) Multiple linear regressions were conducted to test for relationships between memory coherence/completeness and the event context features; and (5) a qualitative review of a subset of the population was conducted in order to more fully describe the processes of meaning-making and guided participation which occurred during the memory book activity.

Rating of Memory Coherence and Completeness

In order to ascertain the coherence and completeness of the children's memories, each child's memory was coded separately using both the transcripts and memory books. Coding for memory coherence and completeness was based on the following four criteria: (1) completeness of recall; (2) descriptive details of the physical setting, participants, or actions; (3) coherence; and, (4) thoughts and feelings of the participants. Each of the memory coherence/completeness criteria was rated using a four-point scale:

> 1 - no indicators present
>
> 2 - one indicator present
>
> 3 - two or three indicators present
>
> 4 - all indicators present

Memory Completeness

The memory completeness criteria were developed from the work of Stein and Glenn (1979). Criteria include the following:

1. Initiating event;

2. Orientation - (setting, time, and participant information);

3. Action or sequence of actions or segments performed by participants;

4. Resolution/consequence - what resulted from the participant's action.

Descriptive Details of the Physical Setting, Participants, or Actions

Examples of the descriptive details include:

1. physical setting - the boat <u>hadda bridge on it</u>;

2. participants - she was <u>old;</u>

3. actions - the dog <u>run real fast</u>

Coherence

Coherence is defined as the presentation of thoughts or statements so that the meaning is clear and intelligible. Coherence rating included:

1. sequence - actions are linked together by time, reasonable order or probability;

2. precise and explicit vs. vague or ambiguous;

3. identifies and sustains a topic; rater is able to keep track of the thread of the memory.

Thoughts and Feelings of Participants

Recent research has documented the ability of very young children to recognize and understand the beliefs and feelings of others (Dunn, et al., 1991). Transcripts were rated for the presence of statements about what the participants (including the children themselves) might be thinking or feeling. The criteria include:

1. child cites no feelings or thoughts of participants;

2. child cites one feeling or thought of
   participants;

3. child cites more than one feeling or thoughts of
   participants;

4. child cites many thoughts or feeling of
   participants.

Scores were compiled for each memory coherence/ completeness criterion and a memory composite score was tallied for each child, and a class mean (class memory composite score) was established.

Retrieval Event Context Features

Memory transcripts were then analyzed to determine the presence of the four context features of the social context in which the memory was retrieved. These features were the independent variables in the study and are deemed critical to helping a child reconstruct his meaning (memory of the event).

The Retrieval Event Context Features included:

1. Child Meaning

   Part A - Child Meaning

   Part B - Personalizing/Contextualizing

2. Informal, conversational format

3. Peer participation

Coding System for the Retrieval Event Context Features

Each of the retrieval event context features is
characterized by a number of indicators designed to capture
the nature of the social context features during the whole
event. (See Appendix X). The indicators include
interactive behaviors and patterns of behaviors between the
teachers and the children. While it is understood that all
teachers employ a combination of formats, the rating scale
is designed to be sensitive to the particular teacher/child
patterns that are occurring during the memory book
activity. Each context feature also has contrasting
behaviors which were used to assist the raters in
identifying whether the context feature was present. It is
assumed in this research that, if the teachers and children
are practicing the context feature (i.e., child meaning),
they cannot be simultaneously practicing the contrasting or
opposite context feature (teacher meaning). There is an
inverse relationship. For example, if a rating of "1" is
given for child meaning, it is equivalent to a rating of
"4" for teacher meaning. Both the positive indicators of
the retrieval event context feature as well as the
contrasting behaviors are defined below. The raters
recorded only the occurrence of the retrieval event context
features (the independent variables in the study).

Since the study was designed to capture the nature of
social context features during the whole event, the
indicators include interactive behaviors between the

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children and the teacher. For example, for the first context feature, Child Meaning, an indicator is that the "child initiates memory content and controls talk while he/she has the floor." The corollary teacher behavior is "teacher accepts and shows interest in child's choice of topic, demonstrating his/her acceptance verbally (e.g., "that sounds interesting") or nonverbally (for example, nods, smiles).

Each of the Retrieval Event Context Features were rated using a four-point scale:

1 - context feature not in evidence;

2 - context feature in evidence in at least one teacher/child memory narrative;

3 - context feature in evidence with half of the child/teacher memory narratives; and

4 - context feature in evidence most of the time.

Coding Procedures and Reliability

First the memory variables were coded for all 199 children by the researcher and two independent raters. One of the independent raters was the Director of a private school with 19 years of experience with three-, four-, and five-year-olds. The second independent rater was a psychologist with the Department of Education with no direct experience in working with young children. The

Rating Instrument

Context Feature **CHILD MEANING** (vs. teacher meaning)   Part A

   Child Meaning. The child interprets the memory task as "tell me what you understand, the central meaning of the event to you"; the children know they are expected to focus on the meaning and accuracy of their own recall of the event. The teacher values the children's knowledge of their own personal experiences, expects the children to have this knowledge and be able to share it verbally.

Contrasting Context Feature- Teacher Meaning. When this context feature is operating, the child focuses on saying the "right answer" or teacher's expected answer, to the question. The teacher tries to lead the child to say certain things which constitute the teacher's version (script) of what probably happened in the remembered event. The teacher communicates directly or indirectly that the child's task is to discover what the teacher expects (knows) about the meaning of the topic or event under discussion. The teachers signal with their questions and participation cues what they feel constitutes the highlight of the event.

                                        Indicators

            Child Meaning   Teacher meaning

child initiates the memory content and   teacher may initiate. Teacher controls topic
controls talk while he/she has the   direction and length of narration
floor.

**Teacher accepts and shows interest in child's choice   teacher devalues child choice of topic, for instance,
of topic, demonstrating his/her acceptance verbally (eg   by shifting topic..." ok that's fine but let's go
that sounds interesting) or nonverbally (eg nods,   back what's the name of that beach you went to two
smiles)   weeks ago? Tell us about that

**Teacher accepts the moral values implicit or explicit   Teacher corrects moral values implied in child's
in the child's narrative.**   memory.

Figure 1. Rating Instrument

Figure 1--Continued:

Child proceeds with the narration of the
memory,without interruption from the teacher.
The teacher does not dominate the discourse.
There is more child talk than teacher talk.

The teacher tries to lead the child to say certain
things which constitute the teacher's script of what
she/he thinks happened in the recalled
event.Eg..When you fell off your bike, did you run
inside and tell mom?...and did she put something on
you knee?" Teacher may interrupt child to get him to
say the answer she wants.
Teacher dominates discourse. There is more teacher
talk than child talk.

Teachers convey genuine interest and willingness to
learn about child's memory. Their responses serve to
clarify or extend the child's meaning, rather than add
new meaning. Teacher or peer questions may cause
children to change their own meaning, but the teacher
adds no new information.

Child tries to figure out what teacher wants her/him
to say, and waits for and picks up on teacher's
participation cues and signals. Teacher may both add
new information or change the child's meaning.

When the teacher summarizes the memory for chart or
picture,only the child's meaning is
recorded.Teacherher accepts the child's organization
of the topic, as long as long as it is coherent.

When teacher summarizes the memory for the chart or
on the child's picture she changes the organization,
wording,or adds new ideas.

CHILD MEANING   Part B

Personalizing/contextualizing   (vs. depersonalizing,decontextualizing)
Personalizing/contextualizing
The content of the memory is both personalized and contextualized by teacher and child. The meaning of the
memory is made more explicit and unique by offering context information such as quotes from the
participants, gestures, actions sounds or changes in facial expression or voice quality to illustrate a
particular mood or feeling, or setting characteristics.
decontextualizing

Continued, next page.

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Figure 1--Continued:

Teacher makes the memory a more general experience, freed from dependence on the particular physical and social context, and setting characteristics of the child's remembered event. The meaning of the event is conventionalized by the teacher who uses statements like..." at all stores we go to pay at the cash register" or "people don't wear clothes in the bath tub, do they?" Teachers generally do this to turn the child's personal experience into general learning(appropriate school knowledge) for all the children. Children are expected to put the memory solely into words rather than relying on shared background or contextual cues to communicate part of the message. Another example is when teachers cut into the child's narration to teach vocabulary, or focus on a detail even when the point is clear. They spend time and effort teaching the name of some object or action which the children who are sharing their memory do not know. One typical strategy is for teachers to offer the child a sentence to complete. Eg..."When we fall, mommies and nurses put something on our cuts. We call that a _____ ?"

INDICATORS

Contextualizing/personalizing	Decontextualizing
Child attempts to contextualize verbally... "You know that green place on the corner? that's where I'm talking about"	Child does not attempt to give specific illustrations to help teacher or peers understand the context.
Child uses gesture,or demonstration to contextualize..."see the plane went like this" (child makes his arm go straight up)	Child expected to report on memory without gestures, demonstration, change of tone of voice. Teacher reminds child to sit still etc. ie..."keep your hands in your lap and speak so everyone can hear."
child uses sounds to contextualize..."and then Georgie, him turned around and went 'grrr'	Teacher asks for conventional feeling. Children are expected to like event "How did you feel?..Did you like it?
child uses facial expression to contextualize ..."him was a mean seal" (child screws up faces in a mean expression)	
teacher personalizes..."Sammy says he has this special blue stuff inside his car, wow!that sounds neat". Teacher responds positively to the above efforts of the child to contextualize	teacher decontextualizes/depersonalizes by generalizing or conventionalizes child's memory...Tchr: Where do you find water? Ch: Lake Fairfax Tchr: Yes lakes are one place to find water...What is a lake?

Continued, next page

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Figure 1--Continued:

Context Feature #2 -CONVERSATIONAL, INFORMAL FORMAT (vs. Question and Answer, formal format)

Conversational,informal format. In this format, children and teacher are participating in a conversation about some events that happened to the children. The teacher tries to make the child feel relaxed and a valued partner in the discourse. The dialogue is an extended collaboration between teacher and children. Teachers try to sustain an interactive sequence, taking their cues from the child, such as reflecting back a child's last phrase to keep the narration going.

Contrasting Context Feature - Question and Answer, Formal Format.
The child interprets the task as "wait for and answer my questions". Childrens' responses are organized by the teacher, expected to be brief, and get to the point quickly. Teacher and child are unequal discourse partners with the teacher the more powerful member.

INDICATORS

Conversational, Informal Format

Turn taking between teacher and children is evident. Each member's contribution is contingent on each other's in a sequential string of responses. Teacher responds with interested response to child; makes comments rather than only asking questions.

Teachers allow children to respond in any order,(they may also go around the circle.) Teacher allows spontaneous "calling out" (discourse term for speaking without being formally called upon).

Teacher protects the child's right to speak (e.g. It's his turn now, let's hear what he has to say. Children are allowed to tell about memory until they are ready to give up the floor to teacher or another child.

Question and Answer, formal format

Children wait for and answer teacher's questions, giving brief replies, predominantly short phrases or one word. They do not give any more information than is requested by teacher, stopping after the reply is given. Teacher controls discourse, and evaluates children's responses as okay or not okay.

Teacher does not permit "calling out". E.g., (to child who calls out) "Excuse me, I didn't call on you". Teacher only allows children who are nominated to share their memory. Children who are quiet are more likely to get the floor.

When child says word or words that the teacher is looking for,the teacher moves on to the next question. Teacher decides when to terminate the exchange.

Continued, next page.

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Figure 1--Continued:

Teacher maintains eye contact with whoever
in the group is speaking.

child looks at teacher while speaking, but the
teacher may glance around at other children, does
not necessarily maintain eye contact primarily with
child who is speaking.

Teacher accepts child's form and style of delivery
which may include false starts, repairs,or repeated
words. Teacher focuses on content of memory.

Teacher requires children to report in appropriate
form (syntax, organization, etc.) corrects children
who make errors

Context Feature #3

PEER PARTICIPATION ENCOURAGED (vs. peer participation not permitted)

INDICATORS

Peer Participation encouraged
participation

contrasting context feature- peer

Child/child dialogue is permitted and encouraged by teacher
as children question or "chime in" to each others' memory
narration.

Teacher limits other childrens' questioning or
participation in another child's narration.
The peer dialogue is seen as inappropriate
interruption (eg. "Excuse me, but it is Sally's
turn now").

Children listen to each other and are expected to look at
each other during the discourse.

Children are expected to maintain eye contact
with teacher only.

Figure 1. Rating Instrument

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independent raters were trained to use the protocol on a set of transcripts (collected prior to the current study) until 85% agreement was reached. The sample was divided evenly between these two raters each coding half of the subjects' memories (approximately 100) and each coding half of the retrieval events (18). Subjects were randomly assigned from each of the five populations so that each rater had a sample of subjects from the five socioeconomic populations.

Secondly, the raters coded the transcripts and memory books for the occurrence of the four context variables. Four scores were derived for each teacher, one for each of the context features using the four-point scale and protocol above. The coding represented the dominant interaction pattern throughout the memory book activity. The event context features were compared to the memory coherence/completeness variables using multiple linear regression analyses in order to assess whether the specific context features were predictive of children's ability to access and communicate their knowledge of a past event.

Three measures were used to assess the interrater reliability. Rater agreements were calculated using weighted kappa coefficients. While one kappa coefficient showed a borderline level of agreement (memory completion - .59), the remaining seven kappa coefficients were at an acceptable level (.63 to .85). Each rater did a total of

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940 codings, and only in 16 cases were the raters two

points apart (and never 3 points apart).

C H A P T E R   I V

RESULTS

The data were analyzed using both inferential statistics and qualitative descriptions in order to carefully examine what happens when teachers try to elicit memories of a past event from young children. The results presented in this chapter were analyzed after rating 199 children's memories and 36 retrieval events as presented in Chapter III.

The first section of this chapter consists of descriptive statistics of the four components of memory (the dependent variable) and the four context features (independent variables) in the study. Secondly, the results of the multiple linear regression analyses of the main and subhypotheses are reported. The results of the age comparison of memory are reported in the third section of this chapter.

Descriptive Statistics on Independent and Dependent Variables

In this section, following the presentation of means, examples of the four dependent variable components are reported, including data on socioeconomic status and age groups. Then examples of the four independent variables are described in a similar manner.

Initially, means were calculated for the memory components and memory composite scores determined for the 199 children. The memory composite score (the dependent variable) is the mean of the four component scores of the children's memory (memory completion, detail, coherence and thought and feeling). The memory composite scores for the two independent raters were combined, and a mean calculated, producing a memory composite score for each child and each class. The means are presented in Table 2.

Table 2

Means and Standard Deviations of Memory Component and Memory Composite Scores of Children

Memory Components	N	Mean	SD
Memory Completion	199	2.7	.58
Detail	199	2.5	.56
Coherence	199	2.6	.57
Thoughts and Feeling	199	1.8	.47
Memory Composite	199	2.4	.50

Memory Variables

Memory Completion

Twenty-three children (12%) reported all the components of memory completion, including orientation information (setting, time and participant information), the initiating event, sequence of actions and resolution of the event. Additionally, 25 children reported on three of the four memory completion components. The ten classrooms

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where the children scored high on memory completion
included five middle income classrooms, two rural Head
Start classrooms, two private working class day care
centers, and one public school classroom. This accounts
for 35 four-year-olds, 18 five-year-olds, and 3 three-year-
old children. All children in the sample talked about
actions of the participants, and only 4% of the children
included a resolution to the event (see Figure 2).

Percentage of Children Reporting on Components of Memory Completion
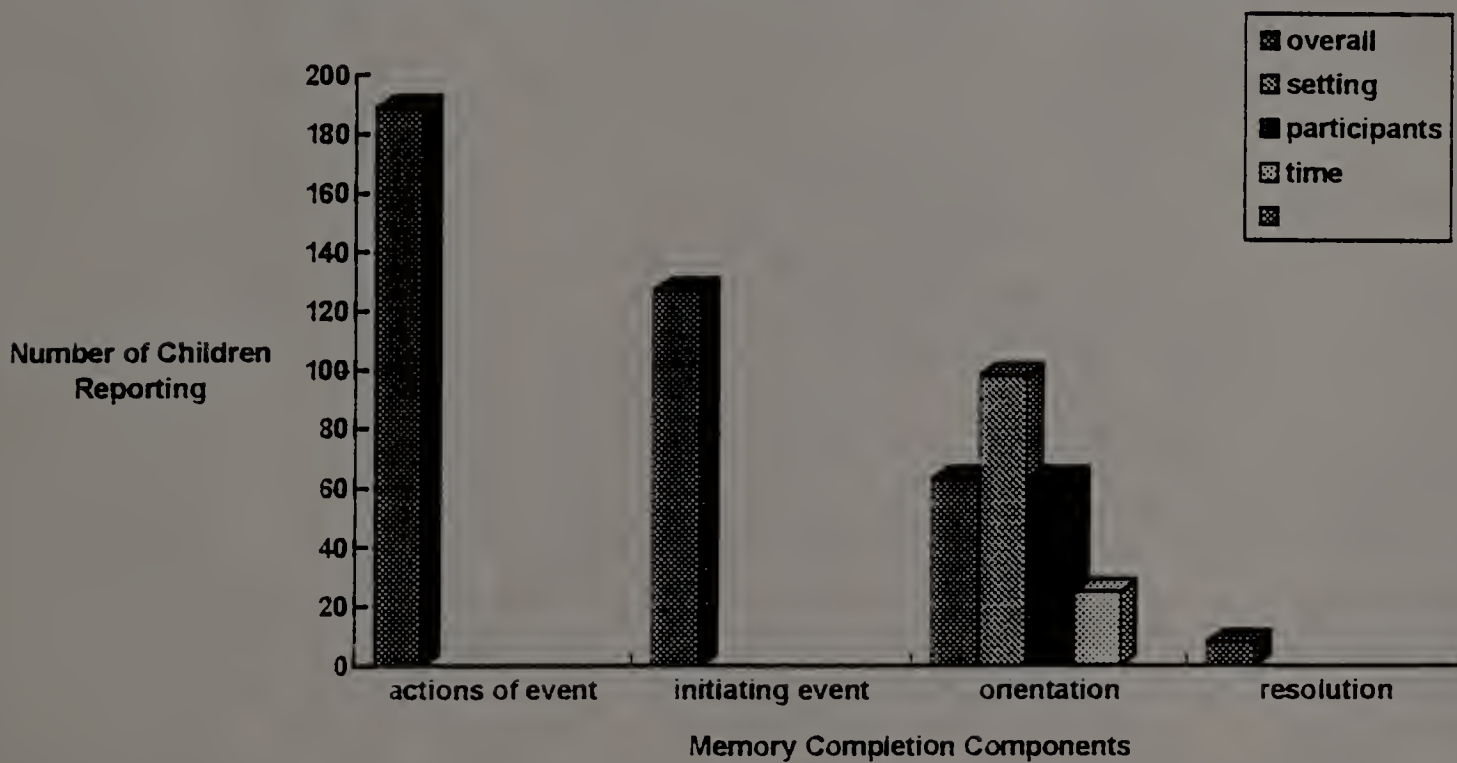
Figure 2. Percentage of Children Reporting on Components of
    Memory Completion

Actions of the Event. Of the four elements that
constituted memory completion--initiating event,
orientation, sequence of actions, and resolution of the
event, the majority of children seemed most comfortable and
fluent when reporting the actions of the event. Almost all
children (95%) reported on actions. Often, the child would

launch right into the actions without any orientation or initiating event.

> Ch: My sliding (sledding) thing went into a tree
> everywhere an I bout went way over it .
> Tchr: Where were you when you hit the tree?
> Ch: No I bout ran over ...went down that hill
> bank.

In spite of the teacher's attempts to get her to talk about the participants, place, or time, etc., the child merely restated the action, hitting the tree with her sled, even after she had made a picture for the memory book and retold the event. Many of the children, as in the case above, felt compelled to establish what actions had occurred, and once this had been accomplished, even in Stage four after making a picture of the event and retelling it, they would add no more to the narration. However, in the classrooms where child meaning was practiced throughout the retrieval event, children elaborated and went beyond the actual actions. In this example, a four-year-old child remembers an incident that occurred when he was two and a half, and an electrical storm caused a tree in his yard to catch on fire. He is pointing to the picture he has made in the memory book.

> I was little and I was going down there (points
> to picture) playin on my swing set. The
> lightning came down and hit the tree . . . an hit
> the tree and taught [caught] on fire . . . an

. . . on the top the string went down here an it

fell down an stayed. It was dark out and . . .

mommy was sleeping and I tried to wake up my mom

but her wouldn't wake up . . . her work at the

plant and her sleeped a lot . . . I was this many

(holds up two fingers) so I was too little . . .

(child continues with memory narrative) . . .

In this example, the child adds information beyond the
actions, such as setting, time, participant and sequencing
information.

Initiating Event. The second most reported aspect of
memory completion (64% of all children) was the initiating
event. Two thirds of the children who included the
initiating event in their memory retrieval, stated the
initiating event at or near the beginning of the narration.
The initiating event was often a general summary statement
of the overall event:

"One day we went fishing"

"I remember when it was my mother's birthday"

or, the initiating event was the first part of the event:

"We were going out to supper"

"We went to the river"

However, one third of the children who included initiating
events did not report them until later in the narration
when they were retelling prior to or after they had made
the picture. It was as though now that they had the basic
framework of the event, they could elaborate on it. For

example, one child remembered being scared and going up and down the stairwell of his apartment building and his mom being outside with a lot of other people there. It was not until later, in Stage 2, during the child's retelling of the experience that the initiating event was reported by the child. There had been a potential gas explosion in the apartment building and the occupants were being evacuated. Since the elevator was out of service, all the people were rushing down the stairwell.

Uh, the house is gettin ready to blow up and some kids was out in the street. . . . nobody could tell them but the elevator wouldn't go up and down . . . and the whole thing . . . mommy was huddled round her arms (demonstrates) on the stairs runnin down

By and large, initiating events were very useful for setting the stage for the narration as well as setting the parameters of the content. If these parameters were set by the child at the outset, the teacher was better able to understand as the narration proceeded. In these instances, teachers could remain as active listeners, rather than interrupting the child to get clarification. The interruptions tended to distract the children from their narration and many children stopped sharing to wait and take their cues from the teachers.

When the children did not volunteer information about the initiating event near the beginning of the narration,

the listeners (teacher and peers) were sometimes confused, especially when the participant information was key to the child's interpretation of the event. For example, when a small girl talked about not liking a boat ride because of the loud singing, the teacher asked, "Are you sure you were on a boat?"; and another child asserted, "I don't sing on my boat." It turned out, later, as the child made her picture, that this was a church affair on a boat that included the singing of hymns.

Initiating events may or may or may not include orientation information. For example, the child who was talking about going on a trip during a school vacation started off by saying, "When I went very far, very far . . ." She included neither the people who were on the trip, where they were going, or time information.

Orientation. Orientation information about the remembered event included details about setting, time and participants. Half of the children (n = 98) gave setting information, 30% (n = 63) of the children named the participants (other than themselves), and 45 children reported time information. The majority of the children in the total group of 199 were either four- or five-year-olds, with only 20% of the three-year-olds giving orientation information.

Orientation information was rarely offered by the children at the beginning of the memory narration. If children had not talked about setting or participant

information after they had reported the main actions of the
event, teachers would usually elicit both participant and
setting details. When children were asked, they were
almost always able to designate the participants
accurately, although they frequently were not able to name
people outside the family. If teachers did not wait to
elicit the information until children had finished talking
about their main ideas, often the children would lose track
of what they were saying.

> L: I remember when I was on this boat and it as
> goin' fast and . . .
> Tchr: Wait a minute, where was the boat?
> L: (looks up at tchr) ummm . . .
> Tchr: Who was on the boat?
> L: (just stares at teacher)

L was never able to get back to her memory of the boat and
the teacher moved on to another child.

Fifty percent of the children reported on the place of
the event. Of this group, the designation was often
general: "at camp, in the woods, on the water." However,
42 children were able to report the place of the event in
specific terms such as "papap's house here at the lake"; or
to name the city or state.

> On the way back to Washington from Maine
> all the way to . . . what's that place? (thinking
> out loud . . . oh yea . . . Pickburg . . . all
> the way to Picksburg

I wented to a boat ride in Baltimore

we drived a long day to Virginia

or even street names: "15th street"; "E street near the

green store."

Not surprisingly, the children talked about their own

role in the event and other participants were mentioned

only if they had participated in the main action.

Information that was volunteered by the children about

the time the event took place was rarely remembered

accurately. Children generally used a non-specific phrase:

"one day" or "one time," indicating that they knew that

when you are talking about a past experience, time is an

element. However, even when the children became more

specific: "when I was little," or "when I was a baby," or

combining the two, "when I was a little baby," they were

usually inaccurate except in the cases where children were

remembering an incident that they had been told about by a

family member. Only six children recounted events they had

heard about, usually from parents or grandparents. Many of

the teachers did not accept these secondhand accounts as

genuine remembering. While a small group of 17 children

gave statements of how old they were at the time of the

event--When I was two, I was this many (holds up three

fingers)--it was used primarily to underscore the fact that

the event had occurred a long time ago. Two four-year-olds

and four five-year-old children accurately specified the

day of the week. In these two cases, the remembered event

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had occurred in the two weeks prior to the retrieval event.
Many of the children in the group that specified time were
able to tie the event to a particular part of the day and
especially when it was a part of their daily routine:
"When I was eating supper." One little boy, talking about
going on a trip back home to El Salvador, vividly
remembered being woken up early by his mother to go to the
airport. While he mixed up the time vocabulary, as is
typical of four-year-olds, he was able to clarify his
meaning by associating it with a routine activity--going to
sleep.

> "Tomorrow when it was night . . . when it was
> night and when I was going to bed and my mommy
> told me to get up early . . .

Most of the events that children chose to discuss had
occurred within the month prior to their recall date.
However, 39 children recalled an experience that occurred
six to eighteen months prior to the time of the research.
These children almost always demonstrated an awareness of
the time span by including statements like "a long long
time ago" or the aforementioned "when I was a baby."

Resolution. Only 4% of the children offered
resolutions to the remembered event. In two of the
instances, the outcome was an important element of the
event. For example, one four-year-old described getting
sick on a school field trip and much of the narration
detailed what was done by her mother and brother to make

her feel better (three trips to the drug store to get soda and medicine). The resolution came at the end: "I still sick and had to go to the hospital."

Two of the children used the resolution to reflect on the meaning of the event, which served to enrich the memory narratives:

Example #1. (Child describes the rough treatment of his cat by his brother):

Tchr: so what happened?

C: She went "MEOW!!" . . . and now she don't like him . . . she runs away when he comes in.

Example #2. (Child has talked about how his dog got run over by a car):

and I'm never going to see him again.

Coherence. Coherence was rated for reasonable sequence, the preciseness of the memory narrative, the child's ability to identify and sustain a topic, and whether the rater could easily follow the main ideas of the event. In the majority (94%) of the memory narratives, the raters were able to keep track of the thread of the remembered event. However, in some cases this was an easy task and in others it was very difficult. The children who were the most coherent (10% of the total) displayed all four of the above criteria for coherent memories, and an additional 26 children exhibited three of the four coherence criteria. Ten of the children (5%) gave

incoherent memories. The most coherent children were four-
and five-year-olds (only 2 three-year-olds were in this
group) and were equally representative of the rural Head
Start program, public school kindergarten, and private
middle class school settings (see Figure 3).

The most coherent memories were organized by the child
into a string of sequential actions. Not only were the
actions of the event ordered in a reasonable manner, but
also this group of children tended to give a rationale when
the order did not follow an expected pattern. For example,
this child in talking about her birthday party the previous

Coherence Rating for the Memory Composite Scores of Children
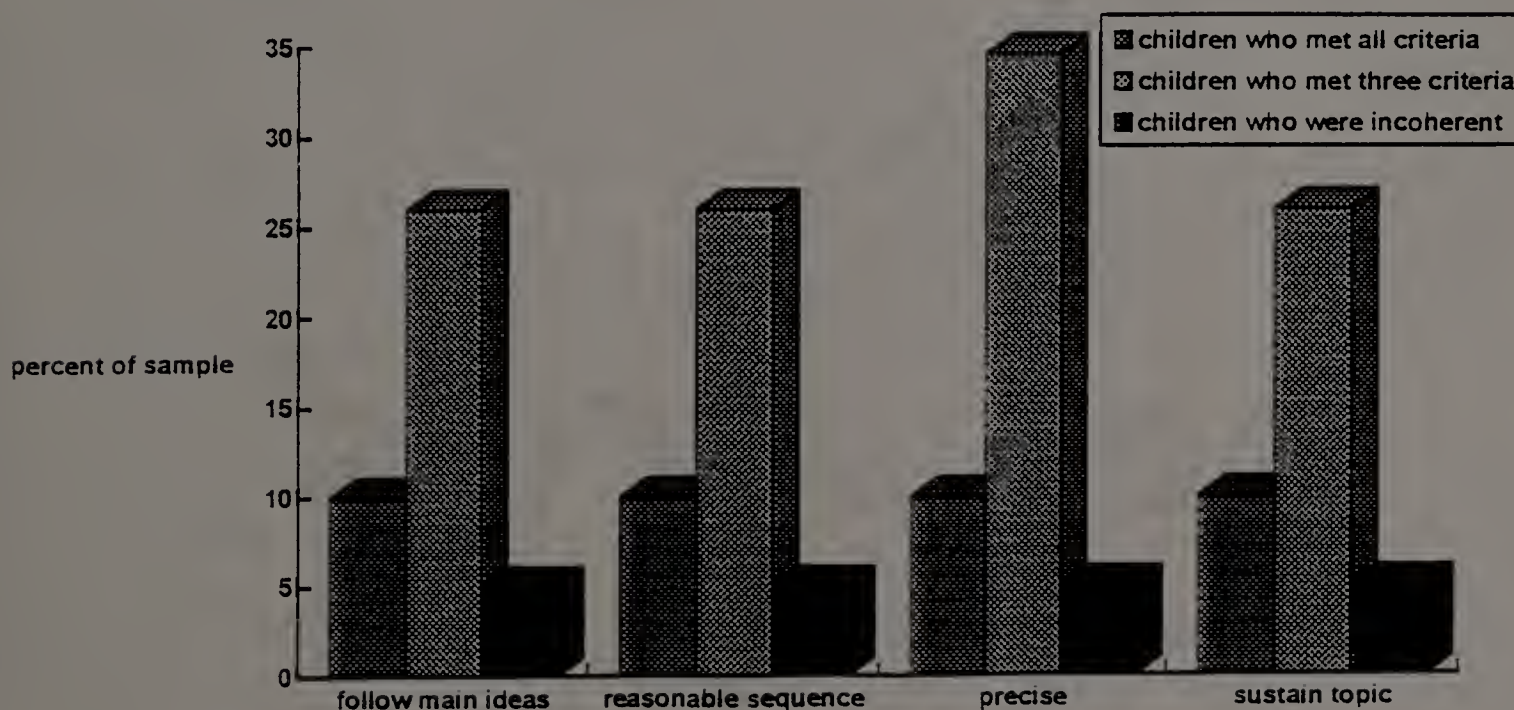
Figure 3. Coherence Rating for the Memory Composite Scores
          of Children

And I was with my granpa and gramma and they had

a little stand outside with an umbrella over it

and just as we started the party it started to

rain and we went *inside with everything* and then

it stopped and we decided to have it *outside* and

then it started to rain again and so we decided

to have it *inside* (laughs) it was going *inside*

and *outside*!

The spirited narration with the careful reporting of the
sequencing by this four-year-old portrayed the essence of
this particular birthday party.

These children were very sure about the sequencing,
and even corrected the teacher if she repeated the
narrative in the wrong order. In the following example,
the four-year-old girl was discussing a summer camp
experience:

Ch: We made clown hats!

Tchr: you did?

Ch: and then we saw some clowns

Tchr: First you saw some clowns and then you

made clown hats

Ch: No <u>first</u> we made clown hats and then we saw

some clowns

Children who gave coherent memories also were very
explicit about the content of the experience:

I was standing on the wall, Joey was playin in

the water and I wasn't. Then I took my shoes off

and walked in the water, but not too far . . .

In this narration, Randy conveys not only the order of what
happened on his trip to the lake, but his own reluctance to
go in until he observed his younger brother in the water,

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and then his caution once he got in. In another example,
Michael is very precise in his description of finding
poison ivy at his beach house:

I was <u>wearing flip flops</u> and there was poison ivy

on the path <u>right in front of me</u> and I didn't

know there was poison ivy so Jonathan told me not

to go in that . . . because <u>there was three</u>

<u>leaves, three leaves on it</u>

Children who were most coherent stayed with the topic
for their whole turn. On the other hand, children who were
less coherent switched topics as they were talking and
"reminded" of something else. In the following example,
Maxwell (5 years old) stays with his subject.

M: Well, when I was 4, one of the weeks I was at

school {prekindergarten in a public school} one

of the weeks was "i" week. One of the boys in my

class named Justin . . . he'd bring the same

thing each week. He kept bringing the same thing

each week. See you're supposed to bring thing[s]

that start with the letter i. And each week he

brang them and I tried to tell him not to. . . .

Tchr: He kept on bringing in ink? at school?

M: the same ink and I told him not to, but maybe

that's the only thing he had at his house. Cause

like on Monday, he brought in ink, and I brought

in ink, and the second day I brought in a

different item, but . . . and so did other kids
. . . but Justin just brought in ink.
On the other hand, Michael, who is very explicit above in
his description of finding poison ivy, switches topics
three times in his narration of his beach house.

Michael: You know every time I go to the beach
house there was this dog sneaking around our
garden . . . (Michael tells about the dog) . . .
and the dog was going to the other path and I was
wearing flip flops and there was this poison ivy
and Jonathan (Michael now talks about his cousin
getting poison ivy) . . . and in the woods where
the poison ivy . . . uh . . . uh . . . uh in the
woods one time a person we just asked when me and
Jonathan were a kid . . . she pushed on the golf
cart all the way down.

In spite of the fact that Michael is very clear when
talking first about this dog he says was "sneaking around,"
he changes before he finishes, to recalling a time at the
beach house when his cousin got poison ivy. Half way
through talking about the poison ivy incident, Michael
switches to this event on the golf cart. He is evidently
reminded of the golf cart event because the golf course is
close to the woods where his cousin got poison ivy.
Without bringing closure to each topic, and changing in the
middle of reporting on an event, the memory narrative is
very confusing and less coherent.

<u>Detail</u>. Ninety-one children (45%) provided
descriptive details of both physical setting, and actions
or participants. The group included 63% of the five-year-
olds, 47% of the four-year-olds, and 25% of the three-year-
olds. The children were evenly divided between the five
socioeconomic settings, with children from working class
child care settings doing considerably better in offering
details of the event than in memory completion, coherence
or thoughts and feelings (see Figure 4).

Distribution of Children Providing Details in Memory Narratives
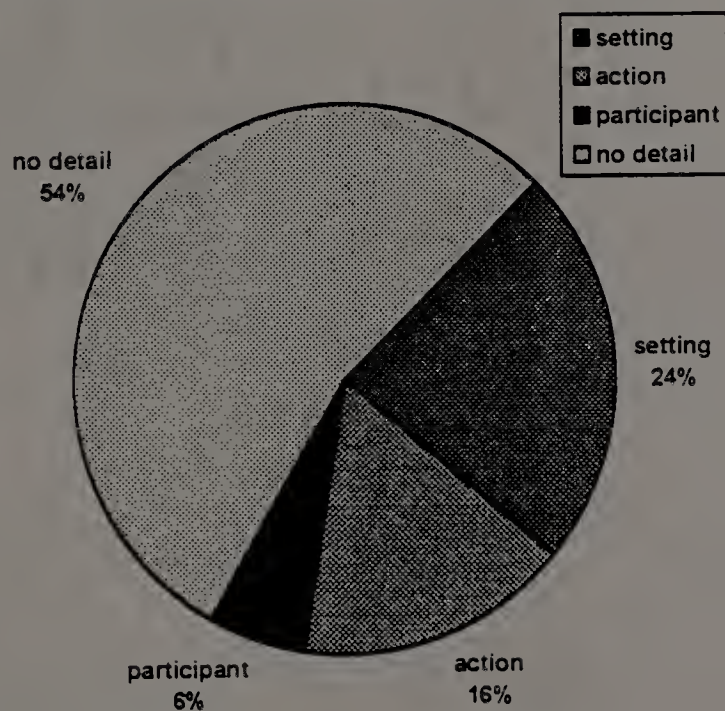
Figure 4. Distribution of Children Providing Details in
Memory Narratives

Details were most often given of the physical setting or
objects in the setting or actions:

When I was crying, I was <u>downstairs</u> in my home in

this <u>ol'</u> chair, it was soft, soft and white,

whitish grey, and at the bottom it was brown.

see this really big wave got _bigger_ and _bigger,_ so

big it _pushed_ the boat back with a _wham_!

Sometimes, the descriptive word painted a picture, such as

the child who, when asked about the kind of boat he had

gone on, replied...a "building" boat [a three-story

steamer], and the palm trees along the shoreline were

described as "sea trees."

Detail did not always contribute measurably to the

coherence and completeness of the memory. Children

sometimes added details which did not assist the listener

in understanding what happened. The details were often

about objects in the event, but the child left out

important orientation information, the initiating event

actions or a reasonable progression. For example, one

child who remembered eating pizza described the pizza in

great detail but did not talk about whether she had gone to

a restaurant or whether it had been cooked or delivered to

her home or perhaps eaten at a friend's or another person's

house. Therefore, some of the children who had low memory

completion and coherence scores tended to persevere on one

aspect of the event and had high detail scores.

Thoughts and Feelings. Seventy-six (38%) of the

children cited thoughts and feelings of the participants.

Included in the group of teachers and children scoring

highest in this area (reporting the thoughts or feelings of

at least two participants) were three classrooms from the

Appalachian Head Start program, two Hispanic classrooms,

and two urban private middle class settings. Twenty-nine
four-year-olds (31%), eight five-year-olds (17%), and five
three-year-olds (10%), 22 girls and 20 boys made up the
group of children (see Figure 5).

Distribution of Thoughts and Feelings Ratings on Children's Memories
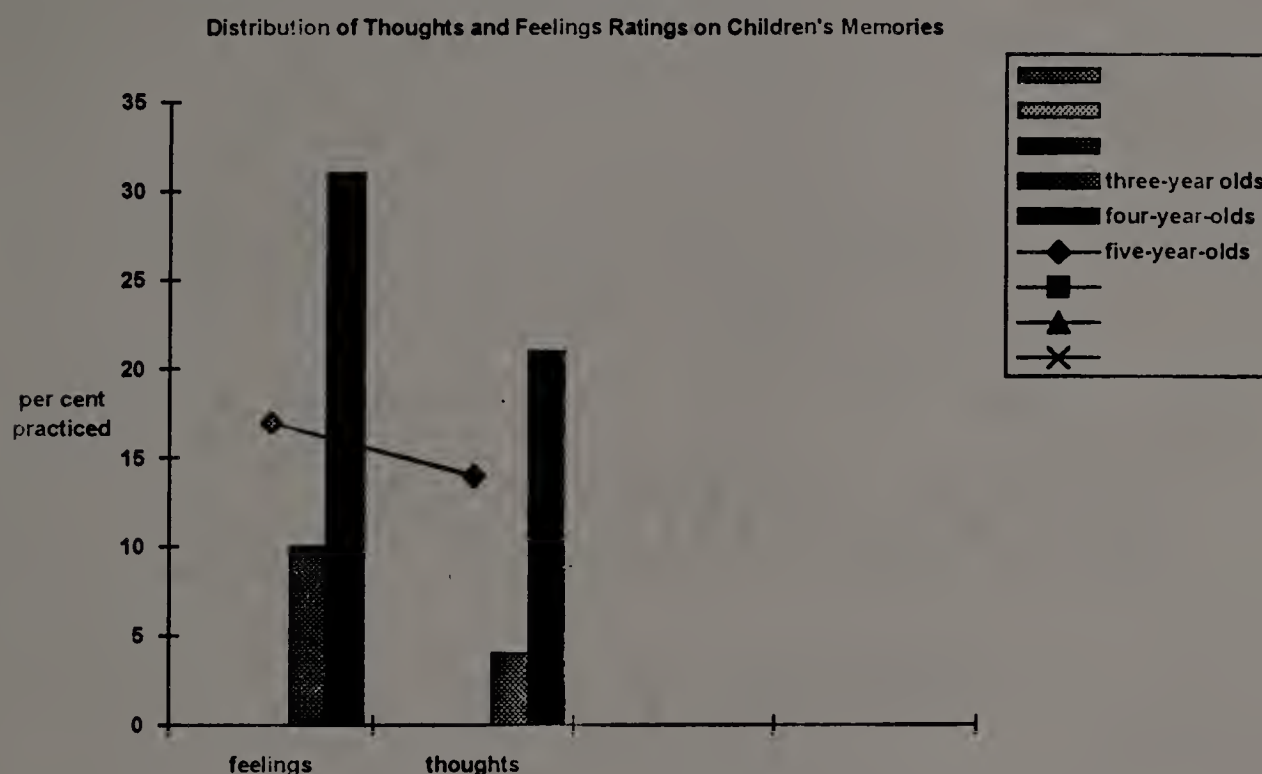
Figure 5. Percentage of Children Citing Thoughts and
          Feelings

The majority of children in this group cited feelings
(80%) of the participants rather than thoughts (20%). Of
this group, twice as many children reported on their own
feelings during the event as those reporting on the
feelings of other participants: "I was scared about the
plane," "My puppy died. . . . it made me sad," and "I was
going up and down and I was frightened and I was scared
and then what else . . . I was cryin'."

When children cited the feelings of others, it was
most commonly about another family member. For example, a
three-year-old speaking of her younger sister:

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> Brittany, she was scared of the seal...[I] said
>
> don't be frightened, don't be scared (waves her
>
> hand up and down . . .

A few children talked about the feelings of peers when the peers were central to the remembered event, such as the five-year-old who talked about a fight he had outside his house: "They . . . I know they don't like me."

Most of the time, children discussed being scared or sad. A few children talked about more sophisticated feelings such as jealousy, feeling apologetic, or empathy, as in the following example, where a four-year-old Hispanic girl had been left with an unfamiliar sitter when her mother had to rush her baby sister to the hospital. When the mother returned to check on her, she spoke of how her mother understood that she was scared, and said her mother was going to take her back to the hospital with her.

> When momma come, I not cry . . . she say she know
>
> I sad anyway . . . she know I cry . . . she told
>
> me she don't want me cryin and sad, she take me
>
> back to the hospital when she go to see Carolina.

Only three children attributed feelings to all the participants in the event, such as Victoria, who was able to portray the different emotional reactions of her family to an accident . . . daddy was mad . . . mom cried and was all upset . . . and [her sister]

> she be walkin up and down . . . and cussin . . .
>
> she be _real_ mad

A few children attributed feelings to the animals in the event, such as Kayla who said the deer didn't like her: "he liked the boy."

Most of the children who reported on the thoughts of the participants, talked about the other participants in the event: "My mom thought I had been bad to them . . . Daddy wanted me to go with him." Often, children indicated their knowledge of what the participant was thinking by quoting what they had said. Although Martin does not report on any action that Gramma took during a fight between her grandchildren, you know that she blames Martin's brother when he says: "Gramma said to him [Martin's brother] 'quit hitting boy!'" Occasionally, the children reported their own thoughts, as did this four-year-old, who reported, "an I reeled that fish in and I thought . . . this is too big." Or, another fish story, when Jessica was sitting in the back of her father's truck on the way home from catching a very lively fish which was jumping all around, she gave us insight that she thought it was funny: "I picked up that ol fish . . . You fish you! I thought I was going to laugh!"

Context Features (Independent Variables)

The means for the independent variables for each of the 36 retrieval events (memory book activity) were calculated and are presented in Table 3.

Table 3

Means and Standard Deviations of the four Context Features
(independent variables)

Context Features	N	Mean	SD
Child Meaning	36	2.9	.85
Personalizing	36	2.4	.85
Format	36	2.6	.99
Peer	36	2.1	1.0

Correlations among dependent and independent variables are

presented in Table 4.

Table 4

Intercorrelations among Memory Composite, Child Meaning,
Personalizing, Discourse Format, and Peer Contribution

	Child Meaning	Person- alizing	Format	Peer	Memory Composite
Child Meaning	1.000	.7971	.8305	.7065	.8349
Personalizing	.7971	1.000	.7796	.7310	.8068
Format	.8304	.7796	1.000	.7193	.7756
Peer	.7065	.7310	.7193	1.000	.6874
Memory Comp	.8349	.8068	.7756	.6874	1.000

While there is no indication of a problem with

multicolinearity, the high correlations among the

predictors may indicate a redundancy in the prediction of

memory composite.

Child Meaning. In 50% of the retrieval events, child

meaning was in evidence in at least half of the

child/teacher memory narratives. Included in the group of

twelve classrooms that scored the highest in child meaning

(child meaning in evidence most of the time) were five

classrooms in middle class private schools, five classrooms

from a rural Appalachian Head Start program, and two

working class Hispanic community child care settings.

Forty-nine four-year-olds (53% of the four-year-olds), 11

three-year-olds (21%), and eight five-year-olds (15%) were

included in this group (see Figure 6).

Distribution Of Twelve Classrooms where Child Meaning Occurred Most of the Time
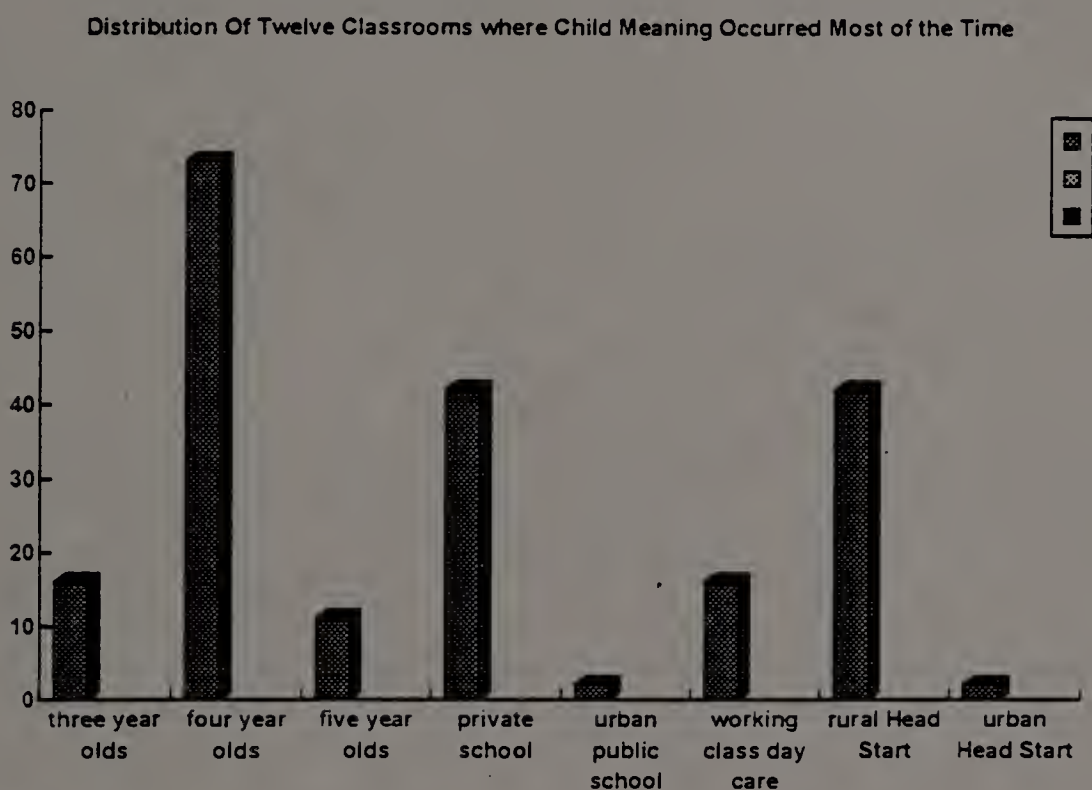
Figure 6. Distribution of Twelve Classrooms where Child
          Meaning Occurred Most of the Time

Child meaning first appeared in the retrieval event by

the children's willingness to initiate talk about their

memories. Although there were some children who were slow

starters, most of the children in this group were eager to

share: "Kay, Kay, I know what I want to say!" One three-

year-old who had been complaining he was never going to get

a turn finally got his turn and was beside himself: "me?

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. . . WELL okay . . . okay, what I've got in my remember to tell is something nobody else knows about!"

The teachers accepted the children's choice of topic even when the events seemed fairly incidental the outset. For example, a four-year-old girl from Washington, D.C., talked about a big brother bringing the child's bike inside when it rained. Instead of discounting the experience as too minimal, this teacher encourages the child to continue and helps her to elaborate in the following way:

Ch: I was watching Punchin Booster . . . and when James came . . . when James came . . . um . . . home, he picked up my bike.

Tchr: He picked it up?

Ch: Uh huh . . . and it was so raining harder when I had my sandals on

Tchr: were you worried about getting your sandals wet?

Ch: (nods vigorously) . . . and it was so raining harder when I had my sandals on and the water came right in my sandals and I can't get water in my sandals . . .

Tchr: Was this last week during the big storm? (Child nods again and talks about looking out the window and seeing her bike knocked down into the street as she elaborates on her fears of the storm.)

In this example, the teacher helps the child clarify and
extend her meaning, which was really to talk about her
experience in a severe thunderstorm which hit the city the
preceding week. By collaborating with the child, the
teacher is able to help the child produce a more complete
and coherent accounting of the child's real meaning by
collaborating with the child. Kay cues into the child's
words and potential meaning, checking out the child's
interpretation.

In these classrooms where child meaning was in
evidence, the children were decidedly "in command" of their
own narrations and proceeded without teacher interruptions.
For example, when teachers are summarizing the memory in
Stage Four (writing the child's memory at the bottom of the
picture), they ask the children for clarification only
after the child stops. In the following example, a teacher
clarifies the child's meaning by repeating back the child's
phrases or how the teacher has heard it. Even on this
second telling of the fishing event, the teacher (who has
heard enough of the event to take over the narration)
respects the child's interpretation. Since this is a long
sample, the teacher's part of the discourse is in
parentheses.

Um I went and um . . . my dad got the fishin'
pole and then my mom got snacks and my dad got
the rest of the stuff with the fishin pole and
stuff . . . then my dad and me got in the car and

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we drove to the river and my dad put the . . . my

dad put the . . . well I had my hand on this

thing we there's this thing that pulls us away

and then this thing that sticked on the line and

when we pulled it in it was a big trout (child

pauses . . . Deb reads back) . . . then my dad

threw the fishing pole in the water. (the whole

fishing pole?) No just the string. (Ok, threw

the string in, then what happened?) Then the

trout pulled on the line. (OK, then what

happened?) Then the . . . then we take the fish

on the string and hooked it onto one of the

sticky branches. (Repeats child's words?) Then

we had another one on the line . . . (Ok . . . OK

. . . had another on the line . . . then what

happened?) Then we pulled it in and the fish

went off the line and then we left and we took

the fish with us.

At this point, the child has terminated, but the teacher

helps the child to extend her meaning as she asks the child

for more detail and clarification.

(We pulled the fish in but it was off the line?)

Ch: yea (But it was off the line...? How do you

say [write] that?) It went off the line because

we jerked it in too hard, but we had one fish.

(It went off the line because you jerked it too

hard? Well that's neat you really were paying

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attention. But you had one fish so what'd you

do?)

Note the use of the words the teacher has chosen; "How do

you say that?" In this particular phrase, Deb is

communicating to the child how important it is to

understand what the child meant and she gets the child to

put it into her own words. Later in the transcript, the

teacher intuitively reinforces the child's knowledge by

complimenting her on the attention to detail and her

ability to remember it. The child continues elaborating on

the event in collaboration with the teacher:

It went off the line, so we took the fish and

said "There ain't none fish in there . . . the

fish just swim down the river, I guess. (We took

the fish . . .) . . .that big big fish . . . (and

we said we guessed there wouldn't be any fish?)

No but we caught one . . . there ain't any more

fish in there . . . they just put fish in there

so I figured it was swimming. (So when you said

there wouldn't be any more fish what did you do?)

We left. (You went and got into the truck?)

Yea, and we left. (And . . . where'd you put

that fish?) No, no, I said . . . the fish . . .

the fish went on the tool box, it was on the

floor, it was on the front seat, it was on me,

that lil ol thing went everywhere. (It was on

the tool box; it was on the floor) It was on the

front seat and it was on me, too. (and then what
happened? [teacher is grinning] You're going
along the road and that fish is flopping all over
the place and then what's you do?) The we holl
it by the string "You fish you be good" and then
we took it out and showed it to Gramma. (Said
You fish be good and then you took him out and
showed him to Gramma?) Uh huh . . . that's where
I'm going today Grammaw Jesse. (To show Grammaw
Jessie, and what did Gramma Jessie say?) . . .
The teacher's collaboration takes the form of a combination
of repeating back to the child for clarification and
responsive enjoyment through smiling and enthusiastic tone
of voice.   When the child moves into the present and
comments that she is going over to her grandmother's after
school, the teacher takes her back to the fishing
experience: "and what did Gramma Jessie say?" The child
picks up right away:

said "Look at that big trout take it up we'll eat
it but don't . . . I said let's take it up to
show Grammaw Marie and so we took it up to show
Grammaw Marie and we washed it off and ?????
(You took it up to show G M?) Yea. (And what
did GM say?) Say we'll clean it and eat it but
don't clean it till Bobby and Pap pap come back
up, but they ate the whole thing! (Who ate it?)
Pap Pap he's a hog he is that man . . . it was

that big that he ate . . . (Pap pap ate the

whole thing?) Yea, he's a hog he's eating

everything that I see . . .

Child Meaning was apparent in these retrieval events

as the teachers and children alike enjoyed the

opportunities to discuss the children's experiences.

Teacher's comments demonstrated their general enjoyment of

the activity as well as support. After two very different

memories about going fishing, teacher jokes to the

children:

Oh boy, looks like we're going to get some good

fish stories here! (laughs) All children smile,

one claps her hands

Questions to the children were genuine:

. . . So then what happened when daddy put the

fire out . . . what were you and mommy doing when

daddy put the fire out?

Personalizing. Personalizing occurred in 36% of the

retrieval events, although only in two classrooms did it

occur most of the time. Five Appalachian Head Start, three

Hispanic working class, three private middle class, and one

urban Head Start constituted the group of classrooms where

teachers and children did the most personalizing of the

narrative memories.

Children most often personalized the narration with

gestures, facial expressions and/or assumed the tone of

voice of one of the participants (see Figure 7).

Style of Personalizing of the Memory Narratives

tone of voice
11%

asides
5%

facial expression
27%

gestures
facial expression
tone of voice
asides
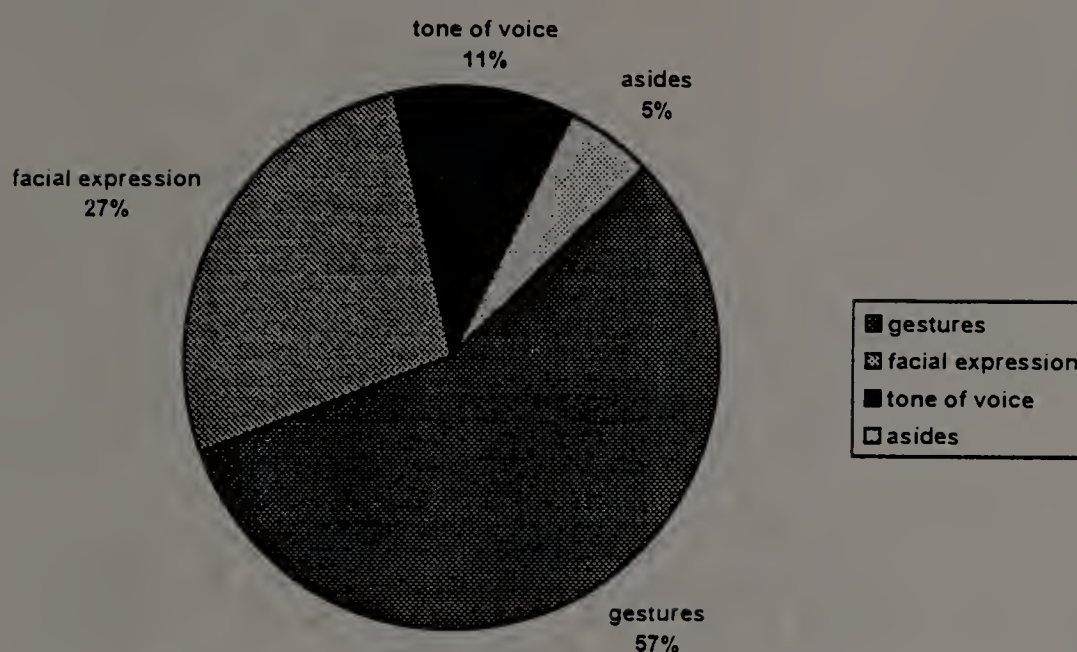
gestures
57%

Figure 7. Style of Personalizing of the Memory Narratives

Gestures, and facial expressions were used for
explanatory purposes to extend the meaning. For example,
Eric (4) reports on a recent stay in the hospital where he
had tubes inserted in his ears. Eric's memory centered on
his chagrin at being put in with the babies, and getting in
trouble with the nurses.

Eric: That haddta put me where the babies are
sleepin in (grimaces)

Tchr: Awww (sympathizing) a different kind of
bed?

Eric: No . . . yea . . . kinda . . . it has lot
of things go up and down (makes circle with his
fingers and slides hand up and down) and when
you're in there it looks like this (puts hand in
front of face with fingers extended) . . . it was
green with baby stuff on it . . .

Tchr: a crib?

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Eric: yea, and they put me in this thing like a

baby chair (stands up and demonstrates).

In this exchange, through his gestures and facial

expression, Eric makes it clear what he took away from this

experience, embarrassment and chagrin, as opposed to the

more typical, for example, fear of shots. The teacher

encourages his personalizing with her initial response

. . . "awww" . . . and her acceptance of Eric's gestures

which helped him to communicate more completely his

meaning. The personalizing takes on a collaborative

nature, when teachers reciprocate with sensitivity to the

child's unique feelings and interpretation as above and in

the following example.

R: Me and J went to the zoo one day and there

was a elephant--(looks very serious) . . . I

heard it, I hadta . . . it was creamin'

[screaming] and it was drinkin' water and there

was a big daddy! (R screws up her face and blows

up her cheeks and holds her arms out in a very

menacing manner)

Tchr: Wow I bet that must've been loud...a big

daddy elephant huh?

Later, the mother communicated to me that she had never

seen such a huge elephant, and the children had initially

been frightened, but then unwilling to leave the elephant

area. Beyond simply saying that she saw and heard a big

elephant, R effectively uses facial expression and body

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posture to emphasize her points, and translate the impact
of this part of the trip to the zoo trip. As with Eric
above, R. did not have all the necessary vocabulary to
communicate her full meaning with words. Gestures were
used to indicate size (as above) and . . . "the snake was
this long" . . . or to give accurate details about the
physical context.

> Randy: see . . . see . . . this is the pond
> (Randy sweeps his arm over the table) . . . I was
> standing over here (points to one end of the
> table) and this is the end of the pond (points
> to the opposite end of the table) . . . and I
> cast it right here (moves hand from one end of
> table to the other)
> Tchr: Gee that's farther than I can cast when I
> go to that pond.

Children used demonstration to illustrate a particular kind
of movement: "see he was crawling like this that dog . . .
(demonstrates dragging himself along inch by inch)" and "I
was sitting in the back doing this."

> Some children assumed the tone of voice of the
> participants to bring the event to life.

> She said "Mom I bumped my head, mom I bumped my
> head, mom I bumped my head." (Child uses high
> tone of voice) (Uses deep voice) n' the Fire
> Marshall said . . . "It's good you got out . . .

that thing would burn down and you, too . . . and

you would be dead!"

When children quoted participants, they often did not

include a verbal description of the participant's thought

or feeling in the narrative except through the quote,

letting the quote and participant's own words and tone of

voice convey the meaning. However, personalizing sometimes

took the form of verbal "asides":

We didn't let him outside [puppy] we just brought

him up Gramma's house (turns to child next to him

. . . *"gramma doesn't care if we bring him in*

Gramma's house") and then we gave him some food.

Personal "asides" like this serve to help the listener

understand the unique circumstances of the particular

event. Another child talking about a person whom she did

not know well personalizes by inserting a physical context

statement which provided more specific information about

the participant:

Ch: then Kelly came

Tchr: who's Kelly?

Ch: well I don't . . . (child points out the

window) you know down there behind Zen's store?

we been at her ball game

Tchr: Oh, ok . . .

The picture making activity in Stage two, also served

to help the child personalize. As children explain their

pictures to the teachers who are recording the narration,

the children add personal setting or event characteristics which might not have been reported in Stage one.

> That's me and I was little, and I was going down
> that slippery hill when the dog came . . . and
> then there's me going back to the house . . . see
> my house . . . my house . . . see the ladder
> there was by the that side door cause I couldn't
> reach the latch . . . I'm trying to reach up
> . . . that's why I couldn't get in to tell mom.

This child added the information about the height of the door latch and his difficulty in reaching it, which helped explain why the child had delayed telling his mother about this upsetting event in which she witnessed his cat being run over.

Informal, Conversational Format. The majority of teachers employed a combination of informal, conversational and formal, traditional discourse format. Conversational, informal format was practiced most of the time in only eight of the retrieval events (22%), and with half of the participants in six additional classrooms. More teachers and children practicing this discourse format were located in classrooms in the Appalachian Head Start program (43%); four classrooms were in middle class private schools, three were in working class Hispanic classrooms, and one in an urban, public school kindergarten classroom.

Conversational discourse formats varied from teacher to teacher, but were always characterized by the teacher

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maintaining eye contact with whoever was speaking and urging the children to do so also. Teachers also set the tone for conversations by promoting reciprocal turntaking between themselves and the children, and cuing into the child's last statement in their responses to the child. In the following example, Benjamin (a four-year-old) talks about visiting his grandmother when he was three. When the child pauses, the teacher takes a turn; her questions and comments are about specific aspects of his trip that the child has mentioned.

Benjamin: I went on a trip with my mommy and daddy. I went to my grandmother's house . . .

Tchr: where does she live?

Benjamin: She lives in Philadelphia. She lives in an department [apartment] building.

Tchr: Oh, what do you remember about the apartment building?

Benjamin: She's on the seventh floor. Well, we pushed the seven button and went up to seven and the door came open and I wondered if we were at seven. Well, then we got out and rang the doorbell and mommy said guess who?

Tchr: (laughs) and did your grandmother guess?

When teachers and children used this informal, conversational style of discourse, children who called out spontaneously were allowed to have the floor, or promised a turn soon. They were not reprimanded for spontaneously

calling out. However, teachers also used nomination in a typical classroom manner to call on children who were less vocal or unable to get the floor on their own:

Alex: He had a sword sticking out

Joshua: I have something to say - (calling out)

Tchr: Uuhh, let me get to you, Josh, but can you wait a few minutes? After Alex finishes, let's see if Tiffany's got a memory to share (nomination).

(Tiffany shares her memory.)

Tchr: OK, Josh, I'm anxious to hear about your experience.

Josh: I went, when I was . . . when I was two years old, I started swimming lessons . . . I keep on doing lessons. I keeped on, and I keeped on, and I thought I would do something like jump over, jump, jump into, ...jump off the diving board with anybody looking an' I could cause, see, everybody knows I can swim in the deep end of the big pool and without anybody watchin me. cause . . . see . . . see . . . when you pass this test that they, um, see if you can do it then, um, you get one of those red things to put on your wrist, or your um . . .

Tchr: ummmhmmm

Josh: foot . . . and then you can go . . . um,
in the deep end and in the, um, big pool all you
want . . .

Tchr: So you remember when you took that test?
What was it like? No one's ever tested me to see
how far I could swim.

Josh: Well, um, see I had to swim to one side
and to the back to the lifeguard. And then I had
to, um, then I had to tread water for two
minutes.

Tchr: Oh, that sounds kind of hard. Do you
remember something about doing that, how did it
feel?

Josh: I feel proud of myself

The above example demonstrates other aspects of the
informal, conversational discourse format. The teacher
does not take the floor from Josh when he pauses and is
struggling for a word. Joshua's delivery includes
grammatical errors: "I keeped on," false starts . . .
"something like jump over, jump . . . jump into . . . jump
off the diving board," and repairs: "I could . . . cause,
see . . . when you pass this test that they . . . um . . .
see if you can do it then, um, you get one of these red
things . . ." This teacher, however kept the conversation
going, by letting Joshua make the repairs and during longer
stalls, the teacher responds "ummmhmmm," and at the end,
with two comments and a genuine request for more

information, all of which were signals that the teacher was listening to the content of Joshua's experience, rather than the form of the language.

Peer Participation. There were only a small number of retrieval events in which peer participation occurred (10%). Only in three classrooms (all from the Appalachian Head Start program) did it occur most of the time and four classrooms (including one urban public school, one Hispanic working class, one private middle class, and one Appalachian Head Start) in which it occurred with half of the memory narratives within the retrieval event. The classrooms in which peer participation was high included 23% of the four-year-olds, 11% of the five-year-olds, and 10% of the three-year-olds (see Figure 8).

Distribution of Peer Participation

Figure 8. Distribution of Peer Participation

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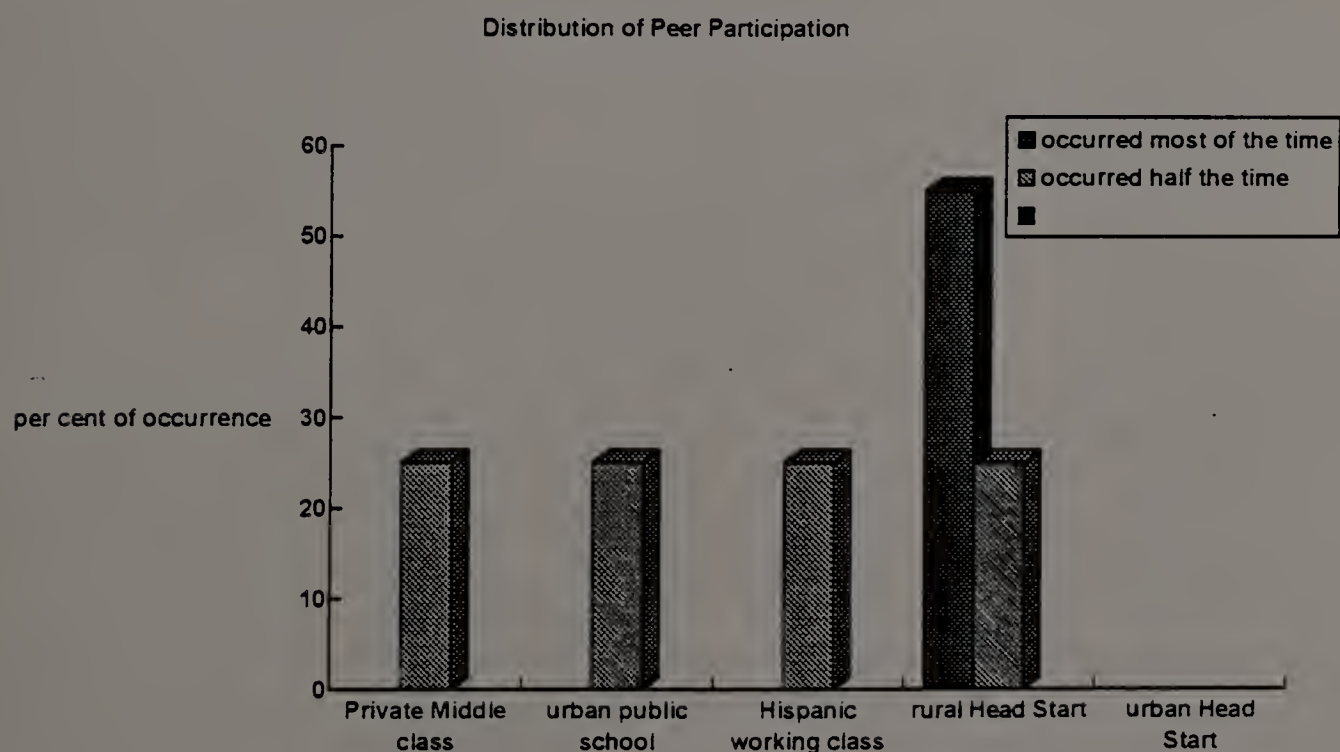
Although peer participation was not seen very often in the total sample, in classrooms where it did appear, peer participation was a natural event and contributed to the flow of the conversation. Teachers in these classrooms actively invited children to participate in each other's memory narration by alerting them prior to the actual narration:

Tchr: Let's see if we can get A to remember something. Pay attention you might need to ask him some questions, and B, you're a good question asker. (Turns to A and pats his arm) What do you want to tell us about?

Teachers usually did not allow or encourage peer participation until the children had a chance to share the main part of their memory. However, in these classrooms, peer participation often seemed to be an expected part of the discourse, and children genuinely were interested in each other's narration and spontaneously asked questions for their own clarification.

When Kenny is talking about an evening when his nightlight blew up, Corey asks: "When it blew did it make any light? Did it make any sparkles?" And, later: "Did the sparkles flew up in the air and disappeared?"

Teachers also drew children into the discourse by calling one child's attention to something another child said and encouraging the children to tell it to each other.

Jo: My sister caught a walleye . . . it was
about 15 inches long . . .

Tchr: Your sister caught a walleye! . . . JJ,
did you hear this?

Jo: and my mom had to help get the hook out of
the fish's mouth when my sister caught a walleye,
and my dad could hardly get it out with his
pocketknife.

Deb: out of where?

Jo: the fish's mouth

Deb: JJ, do you hear this memory that Jo is
telling me? His sister caught a walleye. Do you
know what a walleye is?

JJ: uh-huh

Tchr: tell her about it, Jo, that was pretty
neat

Jo: (turns to JJ) it was a big fish and 15
inches long . . . my mom had to help bring her
in.

In the foregoing example, the teacher uses peer
participation to successfully involve JJ in the memory book
activity as she is the next child to share. Sometimes, the
teachers created special slots within a child's narration
for another child to participate: "let's stop, B wants to
say something about A's memory." In another example, a
child was talking about seeing a rattlesnake and the
teacher remarks, "a rattlesnake! (turns to the other

children) have you ever seen a rattlesnake?" Two children chime in with, "yes I have," and "yea, but me and mom saw a bigger one. We were walkin' around mom's house and man we got a hose and he crawled off." The teacher brings it back to the original speaker: "Oooh, did you do that when you saw your snake?"

Teachers helped children to see each other as well as the teacher as the audience by using the terminology . . . "tell us," and "Well, I wonder what made his dog Freddy die, does anybody know?"

Peer participation sometimes developed into a group discussion among several peers arising from one child's memory narrative. This group discussion serves to help the child elaborate and reinforce their own understanding of an aspect of the event. In the following example, the child describes waking up one morning and being told her dog Brownie was dead.

>Becky: My mommy said my doggy went up in heaven.
>
>Tchr: Her mommy said her doggy went up in heaven.
>
>Peer 1: You mean her mommy take her doggy up in heaven?
>
>Tchr: Well I don't think so, how does it get up in heaven, Becky? (Becky shrugs.)
>
>Peer 2: (reaching up) see the inside goes up
>
>Peer 3 talks inaudibly

Tchr: Tell her, Mandy . . . (to group) Mandy
might know how.

Mandy: When you get a shovel and make a hole
. . . (pause)

Tchr: When you get a shovel and make a hole?

Mandy: yea, and you put the puppy and cover it
up (demonstrates with hands).

Peer 2: and the next time, it's still there,
only the inside of it goes up . . .

Tchr: Only the inside of it goes up, C. says,
that could be . . .

Peer 3: I know how

Peer 4: I know, they goes up in a big balloon

Tchr: They go up in a balloon? K says he knows
how . . .

Peer 3: He uses his . . . Jesus uses his power

Tchr: K has a good idea . . . Tell Becky what
you just told me.

Peer 3: (turning to Becky) He uses his power and
takes it up . . .

Tchr: Who takes his power?

Peer 3: Jesus takes his power and takes it up

Peer 5: Oh, I know how . . . the puppy don't go
up, see this is called the soul (C cups his
hands) and it just goes up . . .

Becky: Yea, see it goes up like this (cups her

hands in a similar manner) to heaven, but the

outside of him [dog] is buried down the yard

. . . when we was digging in the ground we

decided to put rocks on top so no one would dig

it up.

In this example, the children jointly problem solve

how Becky's dog might have gotten up to heaven. The

collective and collaborative thinking and meaning making on

the part of five of the children produce a richly textured

narrative that contributes to all of the children's

understanding, including Becky, who elaborates following

the discourse. Upon reaching home that day, Becky shared

portions of the narrative with great confidence, to the

amazement of her mother.

Children sometimes elaborated on each other's memory

narration when the child was speaking of a common

experience, such as the day a cat wandered into the school

cafeteria. While the original speaker described the basic

incident, children chimed in on where the cat came from,

and what happened to it after the cat left the cafeteria.

Frequently the children talked among themselves when

making the pictures of their memory. This peer exchange

also served to remind children of details they may have

forgotten: "Oh, yea, there were all those stones around

the tree." One child even demonstrated, quite capably, for

his peer, how to draw a car.

Regression Analysis

Multiple linear regression analysis was used to test the hypothesis that when the four context features (child meaning, personalizing, conversational format and peer contribution) were in evidence throughout the memory retrieval event, the children would be more likely to have complete and coherent memories.

Prior to examining the correlation between the context features and the children's memory scores, preliminary analyses were run to examine the characteristics of their distributions. An examination of the standardized residual plot indicated a pattern of error consistent with homoskedasticity, and the assumption of normality appeared reasonably well satisfied (see Figure 9).

As can be seen in Figure 9, an examination of the plot of predicted vs. observed values for memory composite scores, as well as scatter plots for each of the independent variables (see Appendices X and X), reveal that the assumption of linearity was also met.

A two-step regression analysis procedure was computed revealing that child meaning was a highly significant predictor of complete and coherent memories (R = .71 p< .0001) and accounted for 70% of the variance. Personalizing, entered second, also contributed to complete and coherent memories (R = .05 p<.01), although it only

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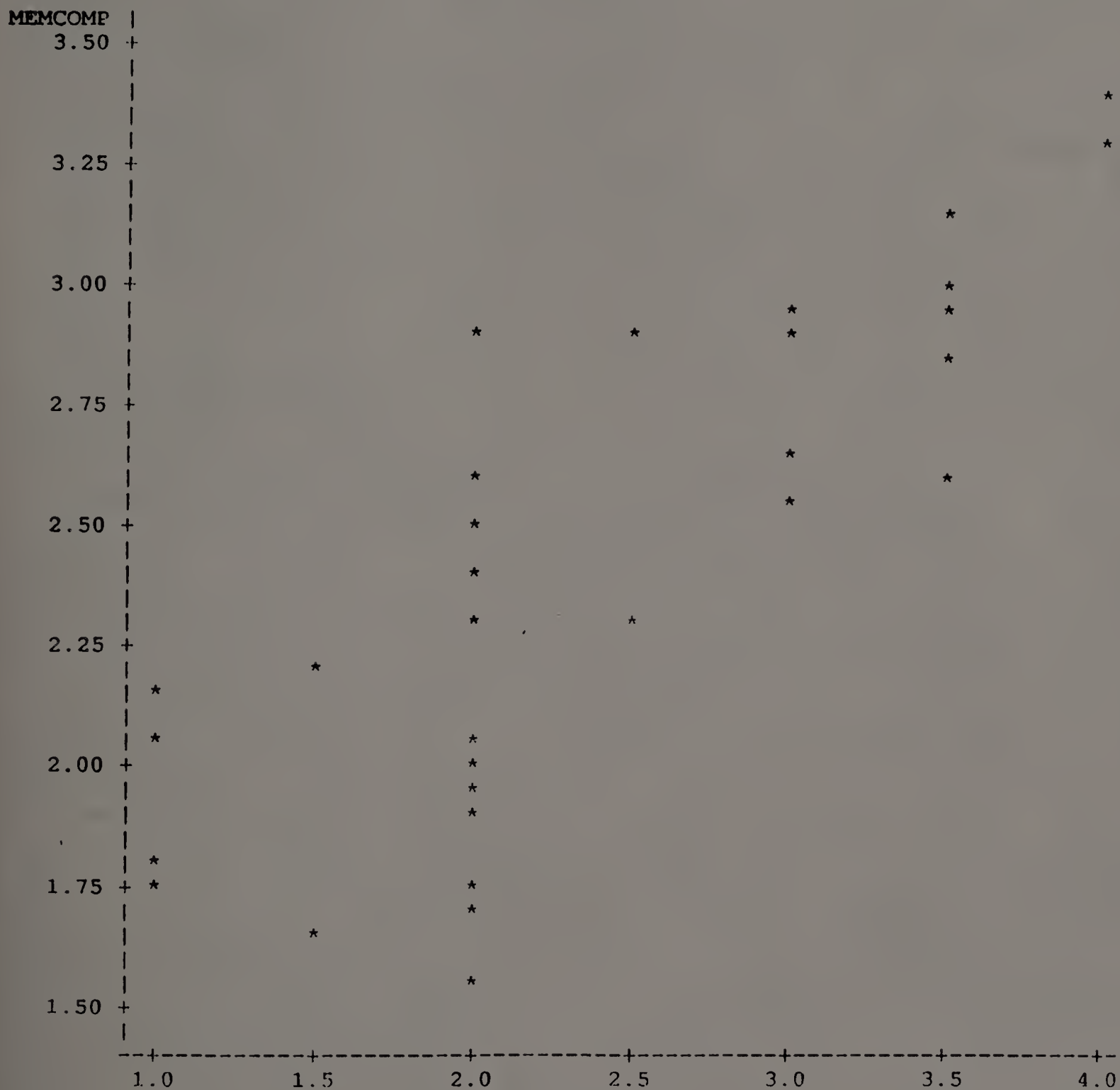
Figure 9. Predicted vs. Observed Memory Composite
Scores for the Model Containing Personalizing
in Child Meaning

accounted for a modest 5% of the variance. While both the
event format and peer participation were positive, neither
of those context features made a significant contribution
beyond that of child meaning and personalizing. The high
correlations among the predictors no doubt accounted for
some redundancy in the prediction (see Table 5).

Table 5

Ordered Regression Table for Prediction of Memory Composite

	SS	df	Ms	F	R2
Child meaning	5.99	1	5.99	78.24	.70
Personalizing	.47	1	.47	6.7	.05
Format, peer	.06	2	.03	.42	.008
Residual	2.08	31	.07		

Child meaning was a significant predictor with all age
groups and across SES groups.

Age Differences in Memory Composite Scores

The data were then analyzed by a one-way ANOVA to test
for differences in memory composite scores between the
three-, four-, and five-year-olds. This was conducted as a
reliability check for the instrument. There was a
significant difference between groups ($F = 9.14, p < .0002$, see
Appendix   ).

A follow-up Tukey procedure was conducted to test for
pairwise differences between age groups. Children were
assigned to age groups as follows: from 3 to 3 1/2 were
assigned to the three-year-old group, 3 1/2 to 4 1/2 were

assigned to the four-year-old group, 4 1/2 to 5 1/2 were
assigned to the five-year-old group. There were twice as
many children in the four-year-old group as in the younger
or older. There was a significant difference in the memory
composite scores between the three-year-old and four-/five-
year-old group, but not a significant difference between
four- and five-year-olds in memory composite scores (see
Table 6).

Table 6

Means and Standard Deviations for Children by Age

Age Group	Memory Composite Mean	N
Three-year-olds	2.07	46
Four-year-olds	2.52	99
five year olds	2.54	48

The significant difference between three- and four-
year-olds helps confirm the analytical properties of the
instrument. However, the unexpected similarity between the
four- and five-year-old memory composite scores was an
interesting finding which will be discussed in the next
chapter.

C H A P T E R   V

PATTERNS OF GUIDED PARTICIPATION AND MEANING-MAKING

In this chapter, the researcher will analyze and
discuss the nature of the guided participation and meaning
making which occurred when children and teachers
participated in the memory book activity. Discussion will
include two of the particular aspects of guided
participation that were the focus of this study - child
meaning and personalizing. Following this is a comparison
of the socioeconomic groups, and the three age groups which
constituted the sample.

Analysis of the transcripts and videotapes revealed a
general pattern of meaning-making that emerged in the
twelve classrooms where child meaning was high and children
were successful in sharing complete and coherent memories.
This meaning making process, which emerged in four stages
is described.

The last section of this chapter consists of a short
critique of the research methodology and rating instrument.

Child Meaning - A Collaborative Process

A dominant finding of this study was that when the
teachers communicated successfully to the children that
they valued, respected and had confidence in the children's
ability to remember and share their knowledge, the children
were better able to perform the memory task. Child meaning

was predictive across both age and socioeconomic groups. The children participating in the memory book activity where child meaning was high, produced both more complete and more coherent memories than children in the memory book activities where teacher meaning was high.

As described in the presentation of the data ,the memory book activities where child meaning was in evidence was indicated by the active participation of children, and their willingness to initiate and "take command" of the narration, even though for many children, it required a great deal of hard work. Establishing the child's meaning is not an instantaneous process. In these retrieval events, the teachers encouraged the children to keep going, giving non-verbal cues to the children, such as smiling, nodding, maintaining focus on the child, and assuming a posture which said "okay I'm listening and interested." The key for these children was dual. First the teachers continued their interest throughout the narration, not just in the initial response. Secondly, the teachers served as collaborators with the children as the narration proceeded, and helped them access their meaning.

Child meaning went beyond the interest and supportive comments of the teacher. It came through as a real commitment to making the process work. Most apparent in the process was that both children and teachers worked together to coproduce the narrative memory.

*Meaning-making was a negotiable transaction and
collaborative process.* The data support meaning making as
a negotiable transaction (Bruner, 1990) and collaborative
process between adults and children through the filter of
the culture of the classroom (Rogoff, 1990). In contrast
to a model of remembering as an individual process, where
the child retrieves a product stored in a long term memory
bank, remembering was essentially an emergent,
collaborative process between teacher and child carried
largely through the discourse. In the five classrooms
where child meaning was most prominent, the meaning-making
seemed to emerge in various stages. In each stage, the
collaboration took on a different form. Sometimes the
teacher took more of the responsibility, sometimes the
child took more of the responsibility and at other times,
both teacher and children shared equally in the
responsibility for the children's coherent and complete
remembering. However, unlike the scaffolding model
described earlier (Bruner, Wood, & Ross, 1976), the process
was not a steady progression from the teacher taking sole
responsibility for the task in the beginning to the child's
increasing assumption of the task, and taking full
responsibility at the end. Instead, in this study, the
responsibility was shared, with the teacher providing a
"scaffold" only when the child seemed to need it, not
necessarily in the beginning of the memory book activity.

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Child Meaning as a Powerful Feature

The most important indication that child meaning was being practiced was when the children truly understood throughout all four steps of the memory book activity that, while the teachers would provide support, establishing the actual meaning was the child's responsibility. Children's talk dominated the discourse, and other salient examples can be found in the preceding chapter.

A particularly vivid example of the strength of this context feature, child meaning, was displayed in an interesting pattern of eye contact that was observed between the children and their teachers. In a typical student/teacher relationship in all classrooms, the teacher is always the more powerful member and makes the decisions about what goes on. That is, after all, the role of a teacher. The participation cues and whatever rights a child has in that classroom are determined by the teacher. This relationship was played out in the eye contact patterns between children and teachers in the study in the following manner.

During the memory book activities, the children maintained eye contact with the teachers in the beginning as the teachers gave examples of a memory of their own childhood. In step two, when the children were invited to report on their own remembered event, the children almost inevitably broke eye contact with the teacher, and looked down or away. Once they had reported some of the facts

about the event, the children looked back to the teacher, as though to check out the teacher's reaction. If the teacher gave verbal or nonverbal approval, and the child wanted to add to his or her report, the child would again break eye contact and continue the narrative. It was as though the children needed to distance themselves from the powerful influence of the teacher's gaze in order to access their own thoughts, and protect themselves from what the teacher might have in mind.

In the memory book activities where teacher meaning was high, the teachers often forced children to regain or maintain eye contact. When this happened, many children were unable to get started or became confused and not able to continue the narration. These children often just stared at the teacher until he or she picked up the discourse and set the direction.

In contrast, in the memory book activities where child meaning was high, the teacher seemed to intuitively respect the child's need to break eye contact, and permitted the child to do. This is similar to the kind of pattern that might occur in conversations between two persons of equal status, when one person is trying to recall something. This pattern was practiced in a majority of the interactions, but was not evident in every child/teacher interaction. A few very confident and fluent children, or children who appeared to have reported on the event before, maintained more prolonged eye contact with the teacher

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throughout the interaction. The pattern of eye contact was very different between peers who looked directly at each other without hesitation (in the classrooms where peer participation was permitted during the activity). The strength of child meaning as a context feature was that it was able to override this unequal power relationship between teacher and child in order to give the child enough power status to take over the meaning-making. Both of the participants, teacher and child, contributed to this equalizing of power, often unconsciously. The teachers gave up their power, as signalled in their willingness to let the child look down or away and return to eye contact when the child was ready. The child risked breaking the rules, spoken or unspoken, about looking at the teacher when you are speaking, and taking the initiative. While harsh looks and eye contact are a familiar tool in managing behavior in classrooms, it is not often thought of as inhibiting or enhancing children's thinking. This pattern of eye contact exemplifies the impact of child meaning vs. teacher meaning as an important aspect of the sociocultural context in which meaning-making is embedded in schools.

Complex Contextual Demands

A general observation that describes the accessing of child meaning also supports the thesis that complex contextual demands (communicative, institutional, social, and biographical) on both teachers and children are

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continually entering into the interaction (Green, 1983).

Some of these context demands were overt, such as the

cognitive and communicative demands on the children when

trying to retrieve, organize and put into language a report

on a past event in their life. The memories were often

reports of events that included accurate accounting of

complex relationships such as why the fish weren't biting

on a given day, or what happens to dogs after they are

buried (See Appendices). But some of the context demands

were so interwoven through the retrieval event, that they

often went unnoticed by raters until a second, or third

examination of the transcripts or videotapes. For example,

making a book, and being asked about out of school

experiences in casual conversation are familiar classroom

events. However, children in classrooms are not frequently

asked to participate during official teaching time in this

kind of discourse event with its open agenda: "What do you

remember?" It usually takes places within the confines of

a curricular agenda, wherein the teacher tries to elicit

specific kinds of information and has set clear parameters

about the content, as a lead-in, or adjunct to a curricular

topic. Therefore the participation cues for this kind of

interaction had not already been established. When

combined with other context and cognitive demands on the

participants, this memory book activity, which appears

simple on the surface, was in actuality a complex task.

Personalizing and the Meaning-Making Process

Children and teachers who personalized their memory narratives were better able to clarify their own meaning and interpretation than in memory book activities where there was more decontextualizing of the memory narrative. Personalizing also *helped the children instantiate and trigger the retrieval process*, and seemed to *give the children a greater sense of ownership over the memory narrative, which, in turn, gave them confidence in their own ability to be meaning-makers.*

Like the semantic networks available to older children and adults (Norman & Rumelhart, 1975), wherein a word triggers a set of meanings, personalizing also triggered a set of meanings for these younger children. When children used gestures to demonstrate how an action occurred, or describe a setting characteristic, or assumed the tone of voice of one of the participants to "create" parts of the original context, children remembered other details of the event. Similarly, when teachers used personalizing techniques such as the names of the child's siblings, or, in seeking clarification, used concrete examples to help "bring the original context" to the discourse (..."was it this big?" the teacher points to a nearby table), the memory narrative was enhanced. Observers can only guess that this personalizing served to activate an image of the setting in the child's mind, as occurs in flashbulb memory (Brown & Kulik, 1977). However, it was

evident that in memory book activities where personalizing occurred, teachers and peers were better able to understand the particular characteristics of the event and the child's intended meaning than in memory book activities where personalizing was discouraged.

Further, the personalizing of the memory narrative intensified the participants' engagement in the process. The active engagement seem to give the children the motivation to keep working at the task. Reporting on complete and coherent memories was hard work for most of the children and teachers. Children and teachers in memory book activities where teachers pushed towards a more conventionalized, decontextualized meaning, were not as engaged in the task. Children in these instances sometimes appeared bored and were unwilling to put much effort into the process. A few even gave up early on in the activity. As one four-year-old stated, "I don't have nothing else."

The relationship of generalized event representations, to episodic or personalized remembering in the meaning making process is a complex one as described earlier in this paper and was examined carefully. Approximately 60% of the children remembered novel, one-moment-in-time events and an additional 30% recalled unique aspects of repeated events. This contrasts with Nelson's finding (1989) that unique events will not be retained in episodic memory because there is no script for them, and the findings of others that young children have greater difficulty

recalling specific episodes or separating them from
scriptlike events (Farrar & Goodman, 1990; Fivush, 1984;
Hudson, 1986).

Rather than children recalling more routine and
typical events of their daily lives, the three-, four-, and
five-year-old children in this research tended to recall
unique experiences. Even when routine events were
reported, the unique aspects of those events were what
children talked about. For example, one boy talked about
going to the supermarket with his grandmother three months
prior to the data collection. After the initial statement,
"I went to the store . . ." he talked only about the fact
that his Grandmother got lost on the way home and a
policeman took them home. (The personalizing of the
narrative which triggered this memory occurred when the
child mimicked the policeman who told his grandmother, "and
don't you get lost again!") Several other children talked
about getting sick with a minor ailment such as a cold or
upset stomach, certainly an event children have experienced
many times by the time that they are five years old. But
each narrative was unique, rather than following a "being
sick script," and even the three-year-old children showed
little dependence on a script schema.

Nelson's suggests that only after children have
sufficiently established a script through a large number of
experiences of an event, that include a range of minor
variations, can a deviation from the script be "memorable."

The foregoing example of the four year old's unique account of a visit to the supermarket with his grandmother exemplifies this proposition. However, in the sample of 199 children, only a small proportion of children reported on events which they had experienced a large number of times prior to the data collection. Most of the children had only participated in the reported event two to four times prior to the memory book activity. There are mixed findings in the literature about how many times an event must be experienced for a script to be established. Researchers report numbers which range from two of three experiences (Rattner, 1991) to a large number of experiences (Nelson, 1989). Thus, it is conceivable that even the children in this group who were only experiencing the event for the second or third time, had not established generalized event representations and were, therefore, not using script knowledge.

While Nelson suggests that script knowledge is the basis from which children make sense of new experiences and construct an understanding of their world, this research suggests a modification of that perspective. Equally as strong as the more conventional knowledge displayed in scripts, is the abundance of personalized, episodic event knowledge displayed by children in this study. This body of knowledge may be more difficult for children and their adult collaborators to access (as described earlier in this chapter) but, when children do retrieve and narrate a

personal memory, it may contribute to a depth of knowledge
that the scripts do not. Children were decidedly the
"owners" of their unique memories and their view of
themselves as autonomous thinkers was apparent. In
Rogoff's (1990) account of cognitive development, it is the
children's own interpretation of the meaning that they
carry to the next situation, in order to make sense of it.
It is from this secure personalized base that children can
then be helped to understand a more decontextualized
picture of the world.

The intermingling of personalized and generalized
knowledge, as children construct an understanding of events
in their lives may not always be predictable. The findings
of this research support the proposition that the meaning-
making pattern varies depending on the dynamic of the
social context. Children in classrooms high in teacher
meaning, produced more generic, scriptlike memories than
children in classrooms where child meaning was high. This
data suggest that sometimes children make try to make sense
of new episodes by comparing them to a generalized schema
as suggested by Nelson (1989) and Mandler (1991), and other
times, children may reflect on one particular moment in
time when confronted with a new episode. In this research,
the features of the social context were instrumental in
determining the respective roles of generalized event
knowledge and personalized episodic knowledge in the
meaning-making process.

Comparison Between Ethnic Groups

The main purpose of using a widely diverse group of subjects, both children and teachers, was to test the effects of the four independent variables - child meaning, personalizing, discourse format, and peer contribution - in widely differing social and economic settings. The major findings of this study are thus reported on the total groups of 36 classrooms and 199 children. The data will be analyzed at a future date to test for significant differences between groups. However, an examination of the memory composite scores of the children, and the child meaning scores (the most significant predictor of complete and coherent memories) revealed some interesting patterns which will be discussed in this section.

Children who were in the group with the highest memory composite scores came mostly from private middle class schools and the rural Head Start program. The high performance of the middle class children from private schools has been documented in the past, and is not unexpected. However, the strong showing of the rural Head Start children from working class homes is surprising. Fifty-four percent of the rural Head Start children scored in the highest memory composite group. These rural Head start children outperformed their counterparts from the urban Head Start program (none of whom had children who scored in the highest memory composite group) as well as both middle class and working class children from the same

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Appalachian communities. Additionally, this Appalachian

Head Start group of three- and four-year-olds gave more

coherent and complete memories than the urban public school

children who were a year and sometimes two years older.

There are many factors which might mitigate against

these children performing so well. The Appalachian area

where these children live is known for poor literacy and

generally described as a depressed area with all the

disadvantages that poverty and unemployment bring to the

home.

Secondly, professional preparation of teachers is

highly related in the research literature to child

competence (Phillips, 1989). Of the five groups from which

this sample was drawn, the teachers in this rural Head

Start program had the least amount of formal training. In

comparison to the seven private middle class settings, and

the six public school settings where all the teachers had

college degrees, only one of the ten Appalachian teachers

was a college graduate.

Teachers in all but two of the 36 classrooms

participated in inservice training. However, a

distinguishing factor which may have contributed to the

high scores of the Appalachian Head Start children was the

nature of the ongoing inservice training which had been

instituted in the Head Start program in collaboration with

the local community college. The teachers stated that the

training was designed to implement a curriculum emphasizing

whole language and cognitive development, focused on getting children to use language to express and report on their ideas. Further there was a deep programmatic respect for children's knowledge resulting from the training. This was given evidence in the high scores that the Appalachian group received in child meaning.

The poor performance of children in the <u>public school kindergarten group</u>, all of whom were five-year-olds and would be expected to show a developmental gain over their younger peers supports the hypothesis that the social context is extremely influential in the meaning-making process. There is evidence in the data that the "schooling" tradition in the public school classrooms predisposed the teachers to push children into making generic statements about the events. This pattern of teaching tended to depress the children's personal knowledge. There were powerful messages, such as the pro forma language used by these teachers such as, "put your thinking caps on," which communicated to the children that this was business as usual. These were their "school thinking caps," not their personal ones. The message was, "your responsibility as students is to figure out what the teacher wants you to say." Even the three teachers designated by the school system as demonstration teachers, and selected because of their good developmentally appropriate practice, tended to fall into more traditional patterns than the other four socioeconomic groups. It

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seemed to be the schooling traditions rather than the particular skills of the teachers that defined the practice. This traditional practice does not engender attitudes which promote a commitment to children's personal meaning.

It was expected that the urban Head Start group, primarily African American children who grew up in the inner city with the capability of talking about events in their lives, using a style known as "performed narrative" (Michaels, 1979) would do well in this memory book activity. However, with the exception of one group of six children, these urban Head Start children fell into the lowest quadrant of memory composite scores. Rarely were children allowed to personalize their memory narratives. This poor performance may have been due to the, often inadvertent, devaluing of personal meaning found in the public school group. Three of the six classrooms were located in elementary schools, and three of the classrooms were housed within a large "centrally administered" city Recreation Department, and most of these Head Start teachers described themselves and behaved more like formal public school teachers than their rural counterparts. They generally practiced a traditional public school style of classroom discourse, and during the memory book activity, they focused on teacher meaning rather than child meaning.

Age Group Differences in Memory Composite

Findings from the analysis of the memory composite
scores of the three-, four-, and five-year-olds in the
sample indicated that there was very little difference
between the four- and five-year-olds. Sixty percent of the
five-year-olds were over five and three quarter years of
age which meant there was a year's difference between the
four- and five-year-olds. This result is surprising, given
the expected developmental differences between these age
groups (Craig, 1992). However, Hudson and Nelson (1986) in
a naturalistic study of children's event memories, found no
age differences in children's memory organization. They
also concluded that children, regardless of age, may find
it easier to organize real life events than text-based
materials such as story recall.

Another possible explanation for the similarity
between the performance of the four- and five-year-olds is
the location of 60% of these children in public school
settings. As cited earlier in this chapter, the schooling
tradition seems to favor decontextualized narrative over
personalized narratives as evidenced in the low memory
composite scores of the school-based subjects.

Meaning-Making in Four Stages

In this study, the children's memory narratives
emerged in stages. All children went through the stages,
though, as is typical of development in general, each child

had his or her own pace and style. In this section of the
chapter, the four stages of the meaning-making process are
described. In keeping with the principle of this research,
that cognitive processes are embedded in the sociocultural
milieu in which they occur, the key features of the social
context of meaning-making which were discussed earlier
(child meaning, personalizing, collaboration and
negotiation) are described here as they naturally occurred
in the four stages of the memory book activity. The stages
became apparent first as observations directly following
the individual transcribing of the videotapes, and later by
comparing emergent patterns between the 36 classrooms.
Evidence of these stages is presented in the preceding
chapter in the abundant descriptive statistics, as well as
in the Appendix (See Appendix X).

Stage One

Four kinds of understandings marked the *first stage*
of the memory book activity: (1) the children and teacher
needed to agree as to what kind of classroom event this was
and the commensurate participation cues which would
accompany it; (2) the children needed to understand what
remembering something means; (3) the children needed to
feel that they had the knowledge and skills required; and,
(4) a specific event had to be instantiated or "triggered."
Again, reinforcing the concept that activities make
multiple contextual demands on the participants, the

children and teacher worked toward all four of these understandings at the same time, rather than in a distinct chronology. They were interdependent, each one was related to the other.

All children had some difficulty understanding the task initially. No children shared complete memories in their first utterance. While children always started with a part of the memory, it was only as the interaction proceeded, together with the teacher, that the children were able to produce more elaborated and coherent versions of the remembered event. As might be expected, initially, teachers took more of the responsibility, for getting the dialogue going. But, from the outset, it seemed to be critical for all the children to understand that the teacher not only valued and was interested in the children's ideas, but was also going to give them the floor right away. It was important that the children begin to take ownership of the content right in the beginning stage. Teachers communicated the expectation that the children would be able to report a memory: "I <u>know</u> you can remember something," or "Our book will be full of your memories about things that happened to you...see the blank pages? We're going to write your words here!" In response, children began with something, even if it were only false starts or short phrases which were not clarified until later in the interaction.

This first stage was exploratory in nature. Children were striving to get something out there, to "test the waters," and see what response they would get from the teacher. Indirectly, the children appeared to be asking is this what you mean? Teacher reciprocated with responses which conveyed whether the children were proceeding correctly. When teachers accepted these initial probes and incomplete statements, and did not immediately push for clarification or expansion, children proceeded with the narration. Some teachers engage the children in a little "warm-up" conversation. This helped to establish participation cues which signal the kind of event it was going to be - informal and conversational - and participation cues that accompany it. It often took four or five exchanges to reach a point of understanding about the nature of the task. During this stage, both teachers and children were probing: teachers to get a handle on what the child had in mind in order to give appropriate signals to the child; children, to check out whether this was what I'm supposed to be doing...is this a memory? am I doing it right?

The following excerpt takes place in a private school, four year old classroom, directly after the teacher has shared a memory from her own childhood (Step one of the memory book activity):

Tchr: (finishing her own recollection) I had alot
        of fun on that day

G: Was Ariel there?

Tchr: You know what? I didn't know about the
         little mermaid when I was a little, girl...
         Ariel wasn't around when I was a little
         girl, how about that?

Mia: What Ariel?

Tchr: Ariel, you know the little mermaid, her
         name is Ariel.

Alva: But you know what?

Tchr: What Alva?

Alva: You know I have a book and she has a seat and
         she's a octopus

Ellen: Are you sure that it was Ariel? (Child
          nods) But you know sometimes we have
          memories, sometimes they are happy and
          sometimes they are sad

G: inaudible comment

Tchr: Now I'm going to give you guys a chance to
         talk. So sometimes our memories are happy,
         sometimes they are sad, and sometimes they
         are scary

A: yeh, yeh, and angry

Tchr: and sometimes they are angry, like if you have
         an angry memory, like if you remember having an
         argument. Now let's see, we're going to take
         turns and you guys are going to tell about your
         own memory.

The teacher initially engages in a short exchange about
Ariel, the mermaid and then tells the children that they
are now expected to talk about their memories.She restates
(presented earlier at the beginning of the memory book
activity) the memory task. The dialogue continues:

    Zachary: I...see these rocks (pulls some rocks

               out of his pocket) know what I'm going to

               do with them?

    Tchr: Zachary, you know what we're talking about

           right now? Something that happened to you

           before. Do you think you can share a memory?

    Zachary: uh uh...(shakes his head)

    Max: Every night I think I saw a shadow

    Tchr: Oh, do you think so?

    Max: and I know it's him, and he say and I know

          what's happening...and when I was little and I

          was in my sister's room and I had my night light

          on and I was in my crib and I saw a bug and my

          mommy came and she got it.

    Tchr: She got the bug for you?

    Max: an I got scared cause...but...and in the morning

          I didn't know I had a nightmare and I thought I

          was going to be afraid and . . . and I thought I

          heard an ambulance coming home from camp and you

          know what I saw?

    Tchr: What did you see?

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         Max:   I...I...heard a firetruck...it was turning and

                turning

         Tchr:  Was it loud also? (Max nods yes)  So you had

                a lot of memories

         Max:   and then there was this policeman, and it was on

                his car and the siren went really loud, because

                we let him by, he needs to get... he needs to

                get where he's going in a hurry.

         Tchr:  that's right

         Max:   and he finally did
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In this excerpt of Stage one of the meaning making process,
the first child, Zachary, makes a bid for the floor, but is
told that it is not appropriate because he is talking about
something right now. He may have taken his cues from the
previous discussion of the mermaid that all topics are
appropriate. The teacher accepts his momentary refusal or
lack of understanding the task. In the next exchange, with
Max, the teacher accepts his narrative, even though he is
wandering from one idea to another, because he has
indicated an initial understanding of memory as something
that happened in the past, with his use of past tense and
the phrase, "When I was a little baby."   Max is engaging
in topic chaining (Cazden, 1988) where one idea makes the
child think of another. He starts with a nightmare in bed
which makes him think of another bed experience (seeing the
bug in his crib) which goes to mom comforting him because
of his fear, and so on. Topic chaining is a natural form

of discourse in certain populations (Cazden, 1988; Michaels, 1986), and also may accurately reflect the remembering process with some children. However, it is often looked upon as disorganized, incoherent, and lacking any substance in white middle class populations such as the one in which this teacher and child lived (Cazden, 1988; Michaels, 1985). While the teacher accepted his contribution: "So you had alot of memories"; she made it clear in her next statement, that it was not his "real turn" and that she was going to come back to him later.

> Tchr: Thanks, Max. We'll give you a turn. Alva, can you tell us a memory?
>
> Alva: I was at baby and my aunt...I don't know all the words
>
> Tchr: that's ok, that's fine, you tell us the words you can. So one time when you were a baby?

The teacher encourages Alva, reassuring her that this is a collaborative venture and the form of the language is not important. Her message also conveys to Alva that she is on the right track, that her responsibility is to narrate the content as best she can. By the time the next child shared a memory, there seemed to be a fairly clear understanding of the task. One exception was George whose misinterpretation was based on the model set by the previous child. George told about something he did when he was a baby and then announced, "but I don't remember it." The teacher, slightly taken aback, inquired why he had

shared it, and he replied that his mother had told him that he did it, but he didn't remember doing it himself. He further explained that he couldn't remember what he did when he was a baby, like Molly (the child who had reported just prior to George). While he fully understood what a memory and remembering was, he had thought he needed to remember something from his infancy, an act he could not perform. When he was assured that he could talk about something that happened in his more recent past, he completed the task easily. This incident is interesting from a meta-cognitive point of view, that this four-year-old differentiated remembering about being told about something, from the actual memory of performing the act. While many young children overhear, or are told stories about their behavior as infants and toddlers, only three other children shared memories of incidents that they had heard about secondhand.

The foregoing transcript represents only one version of a Stage one example of meaning-making. Each group of children went about understanding the task in different ways.

Often the dialogue took the form of short phrases: "Christmastime I hadda toy... ("Oh?") ...dump truck...(a dump truck?) Teachers showed acceptance with smiles, nods, repeating the child's phrases even though the dialogue was tentative and exploratory. It served to get an idea into the discourse to act as a beginning point for child and

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teacher. If the child still seemed hesitant after several exchanges, the teacher might offer more substantive content support to extend the child's thinking and help instantiate the memory: "Was this down at grandpaps house?"

In the past, many of these teachers had talked informally with the children about out of school experiences, and this was evidenced by their referral to past conversations: "Oh, I remember when you were talking about something that happened at the ballgame last week." Children talked more confidently and readily about an event they had previously mentioned to the teacher. It is not surprising that children who have already mentioned an experience to a teacher would be more likely to remember it more coherently and completely. However, the enhanced memory performance might also be explained by the theory which holds that children are also more experienced in the narrative skill of talking about a past event. As found by Eisenberg (1985) and Hudson ((1991), the history of the teacher/child interactions were critical in their support of the production of these rough drafts. A third possible contributing factor to improved remembering is that the teacher's comment (Was this at Grandpaps house?) also triggered the child's own retrieval process by simply adding a part of the context.

This initial stage of discourse served to assure the teacher and children that they were headed in the right direction: children knew what "reporting on a memory"

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meant, and the teacher felt assured that the child understood the task ahead. It also served the function of getting some particular ideas shared upon which the teacher and child could reflect and elaborate, and by this process, feeling confident in the child's participation as a meaning maker. It was only through the actual discourse, getting some thoughts discussed and "approved," that the children could construct the necessary understandings stated at the beginning of this stage. As the children struggled to make their meaning clear in this collaborative manner with teachers, they likewise were using the discourse to explore and confirm appropriate participation in the memory book activity, their understanding of the memory task, their own general sense of valued cognitive contribution to the discussion, and in a specific sense, the retrieval of an acceptable past event.

Stage Two

During the *second stage,* the child and teacher produced a "rough draft" of the remembered event, similar to that suggested by Cazden (1988). The meaning-making process was formative and often ideas offered by the child were tentative. In classrooms where child meaning was high, a key aspect in helping young children share their meaning, was that the children be allowed and even encouraged to produce rough outlines or "talk drafts" of their ideas and then be able to elaborate on that draft.

The rough draft consisted primarily of the main actions of
the primary participants, but often contained repairs,
corrections, gaps in the sequence, and unfinished thoughts.
More children can enter into the meaning making process
when they feel they don't have to produce the finished
product instantly. Teachers who were committed to helping
children access their own interpretations of events in
their lives saw rough drafts as legitimate student
contributions, a first step in becoming experienced
meaning-makers. Meaning making was seen as a gradual
process that takes place over time.

It was in this stage that the greatest difference
occurred between teachers who valued and were committed to
eliciting child meaning, and teachers who valued and sought
to elicit teacher's meaning. In contrast to the above
practice in classrooms where child meaning was high, in
retrieval events where teacher meaning was high, children
were often expected to produce complete drafts of the
teachers expected version of the event by the second stage.
In one example, a child begins by stating that she was
sleeping in her bed and a mosquito came and bit her. The
only other child that had reported on a memory had talked
about a birthday party (indoors), so the topic was not
related to any previous discussion. Rather than exploring
with the child (as occurred in the retrieval events high in
child meaning) to see why she remembered this seemingly

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"out-of-the blue" incidental fact, the teacher perseveres
on how the bite appeared and felt.

Tchr: You were sleeping in your bed and a mosquito
       came and bit you? How did you skin look when
       the mosquito bit you?

Ch: right here (points to his thumb)

Tchr: Oh he bit you on the thumb?

Ch: and on my...an on my...an on my arm

Tchr: on your arm? Well what did it look like after
       he bit you?

Ch: um...nothing

Tchr: It didn't look like anything. Don't say
       nothing. was it fat? was it swollen? was it
       a bump?

Ch: no

Tchr: how did it feel?

Ch: (shrugs) nothing

Tchr: You didn't feel anything?

Ch: no

Tchr: no. You don't think maybe it was itching?
       (teacher's tone of voice is rising)

Ch: no

Tchr: It didn't itch? (incredulous)

Ch: no....(pause)....It itched my face (puts hands up
     to face)

Tchr: Oh, it itched your face (tone of voice drops to

a lower pitch) Teacher now turns to another

child ⸱ . . A we haven't heard from you.

The teacher, thus, through her somewhat painstaking
dialogue, leads the child to say that the mosquito bite
itched. Once the child has said the words the teacher was
trying to elicit, the teacher moves on to the next child,
terminating the narrative. In response to the teacher's
repeated questions, the child finally said that it did
indeed itch, but, in spite of the fact that he had already
said he was bitten on the thumb and the arm, he said, "it
itched on my face." It is apparent that this teacher has
guided the child through her questions and tone of voice,
to say the words that she wanted to hear, the teacher's
meaning. The child has not really shared his meaning. We
do not really know what was on his mind, whether he had an
actual event in mind, or what triggered him to say that he
got bit by a mosquito. This teacher has been unsuccessful
in eliciting child meaning.

Even beyond the hesitation experienced by many
children in the first stage, children in this second stage
often needed extra support expanding on their initial idea.
Sometimes the teachers would try a few questions or remind
the child of something he or she had mentioned the previous
week, and invite the child to talk about that. If,
however, the child rejected the suggestion, or couldn't
remember, the teacher quickly dropped the suggestion. The

collaboration worked best when the teachers took their cues from the child.

Some children benefitted from seeing the teacher's support of another child's narration. As these children began to have ideas, they would often "chime in" when another child was speaking. In these instances, the teacher usually supported whoever was currently speaking with a comment like, "It's ____ turn to talk now." But the teacher also created a future slot for the children who weren't able to remember earlier and were now eager to share: "We'll hear your memory about the beach in just a few minutes . . . hold that thought!" Some teachers made a written note of what the child said to help them both remember when the child's turn came. Sometimes, in the case of a particularly reticent child, the teacher might create an immediate space for the child to share at least a portion of his/her memory; "You did go fishing?" In both the "beach" and "fishing" examples above, the teacher acknowledged the child's ability to contribute by making a future place in the dialogue. Her response to the two children was subtly, but critically, different. The second child (who spoke about fishing) was a new contributor to the public discourse (researcher learned this after the memory book activity) and needed more reassurance of his ability to be a meaning maker. He was therefore granted a "short floor time" to share. The former child (who talked about the beach) received recognition, but was not allowed

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to talk about the memory at that time. The teachers in both cases continued their collaboration with the original speaker: neither teacher appeared to hurry or rush the original speaker, in order that the children who had been put "on hold" would not forget. But in these and other similar instances where children had waited, they were able to report coherent and complete memories when their teachers, true to their promise, gave them the "next slot" to speak. The interruptions were kept brief and the teacher kept contact through touch or glances with the child whose narration had been interrupted, to let them know that they still, "indirectly," had the floor. The teacher then helped the original narrator pick up again with a reminder of what the child had been talking about. In response the child was able to continue.

In the above example, the waiting children were able to see an illustration of meaning-making as modeled by the teacher and original child narrator. They witnessed the teacher successfully collaborating with a child. This model served to communicate to them what would happen in the memory narrative when their turn came.

The foregoing example is also a good demonstration of how the responsibility for establishing the meaning shifted back and forth between teacher and children during the memory narrative. While the child took responsibility for talking about the remembered event initially, when the teacher allowed another child to interrupt with a comment

not related to the speaker's narration, the teacher had taken the floor and the responsibility. She took responsibility for helping the child to maintain his thought through the physical touch and eye contact and, later, an explicit reminder. When the child resumed his memory narrative, he again took over the responsibility for the meaning. On the other hand, in memory book activities where teacher meaning was high, the teacher was primarily, if not solely responsible for making sure the meaning was shared.

The teacher's sense of timing in this stage was key. The meaning making process was often disrupted when the teachers asked for clarification or indicated confusion early in the exchange, before the teacher and child team had established the rough draft. Instead of being confident in their own ideas, many children seemed to see this early request for clarification as a signal that they had misinterpreted, and were not completing the task correctly and, either stopped altogether, or shared the teacher's confusion about their own remembering of the event, or even about the task at hand.

However, it was not just a case of the teacher prematurely requesting clarification on a memory that the children themselves were not absolutely sure of. The key was how the child interpreted the teacher's request, as well as how it fit into the child's perception of the whole event, not just one interactive turn. It was always a

combination of features embedded in the dynamic social context of the memory book activity. As Guthrie (1981) has so aptly suggested, the context may change from moment to moment as the children and teacher interact, and these momentary definitions help participants decide what is going on. The reality of what was happening was portrayed by the ways in which teacher and children influenced each other progressively throughout the memory book activity. When a child became secure and began to share his or her memory more autonomously, the guided participation changed for the different teacher/child pairs, even within a small group of four children. The teachers who were most successful in scaffolding good memories adapted their discourse format to the child's responses.

Stage Three

During this stage, children and teachers elaborated on, clarified, and, sometimes, reorganized the rough draft of the remembered event. This stage could be described as the "editing" stage. This stage of meaning-making, involves taking the child's narrative and making possible changes which may be viewed by the child as signals that his or her memory narrative is not acceptable. Therefore, in memory book activities where child meaning was high, this stage of the meaning-making did not occur until after the rough draft had been established. Given the tentative and formative nature of the reporting, it was not always

clear when the rough draft was finished, but it was a joint decision based on mutual agreement between teacher and child that a rough draft had been established. Sometimes children explicitly stated they were finished and had no more to add. Other times the teacher might inquire if the children had anything to add when they seemed to stop narrating. But the teachers always protected the children's right to keep the floor as long as they were still contributing new information about the event. The teacher speaks to a child who has interrupted another, "Michael, G is still talking about his trip to Alabama...G, did you remember anything else about that trip?" As long as some central actions and key participants had been reported and were understood by the teacher and peers, the rough draft was accepted.

For many of the children, this "editing" stage occurred after they had completed their turn during step two of the Memory Book activity, the verbal reporting of memories. Some children thought of additional details shortly after they had shared, but most of the "editing" occurred as the teacher summarized their memories at the end of step two, or during step three, making a picture of the of the event, or for some, even in step four, the final verbal report of the memory written by the teacher on the picture.

The guided participation during the third stage
sometimes took the form of the child providing the elements
of the event and the teacher helping the child think
through the sequencing of the event or ordering of the
event.

> T: Did you run down to the alley before the
>   ambulance came? Or did the ambulance
>   come first and then you ran down to the
>   alley?
>
> Ch: It was already there and had its lights on
>   too.
>
> T: Okay so the ambulance was there with lights on and
>   you ran down to the alley, then what happened?

In the rough draft, the child had relayed the general
sequencing of this fight between the child's older brother
and his girl friend, which had begun in the child's family
apartment, and then progressed down to the alley. However,
as the teacher was checking out the child's rendering of
the sequence, parts of it were not clear. Prior to
recording the child's summary on the chart (at the end of
Step Two of the memory book activity), the teacher and
child thus collaborated in producing a more precise
sequence. This is a more typical role for teachers to play
than some of the others in this memory book activity, and
most teachers were comfortable in this relationship. Many
teachers were more skilled in a collaborative model where
they had more authority and could see where the interaction

was going and their specific role. When teachers were sharing the control of the meaning making process on a more equal footing with the children in the collaboration, they were less sure of their role. Some of the teachers, in the memory book activities where teacher meaning was high, remarked to the researcher, after the retrieval event, that they were worried that the children might not remember anything and it would reflect on their teaching skills. Some asked, "How did I do?"

The editing process often involved clarifying parts of the narrative memory which the teacher originally had not questioned earlier (although they had not fully understood). The earlier focus had been to keep the dialogue going in order to draw out the "rough draft" of the child's meaning. Rogoff (1990) talks about the need for the more skilled partner to support the child's efforts through achievable aspects of the problem. For many children, talking about the main actions of the event was what was achievable at that beginning stage of meaning-making. When children shared experiences that were not part of the particular teacher's cultural experience, the need for negotiating the meaning in order to reach a common understanding was the greatest. Both teacher and child brought their own cultural lenses to the interaction, and at various times throughout this stage memory retrieval, the child and teacher worked through the interaction to achieve common understanding, what Vygotsky (1978) calls

intersubjectivity. In the following example a young
Hispanic boy who had gone to Sunday afternoon soccer games
with his father since infancy, talks about a game. The
teacher (she informed researcher afterwards) had never seen
a soccer match. When the child talked about getting kicked
in the head at the game, the teacher had difficulty
understanding exactly what happened, whether the kick was
intentional, for instance.

>   Ch: No... I hurt myself because somebody kicked
>
>   me in the head.
>
>   T: Who kicked you in the head?
>
>   Ch: I don't know
>
>   T: Did they kick you on the head on purpose?
>
>   Ch: shakes head no...sometimes kids push somebody
>
>   T: were you pushed?
>
>   Ch: No, see...see...see...sometimes we all kickin
>
>   kickin see...to kick at the ball
>
>   T: Oh, so it was part of the soccer game?
>
>   Ch: yea, but ...not the kickin on the head
>
>   T: Oh, I see, there is lots of kicking on the ball,
>
>   but they don't mean to kick anyone on the head.
>
>   Ch: the child beams and nods yes.

In Bruner's terms, this child was trying to explicate the
exceptional part of this event from the ordinary. But he
could only accomplish this when the teacher and child
reached a joint understanding of what ordinarily happens at
a soccer game. On the other hand, in narrative memories

where teachers and children shared a common background, intersubjectivity was quickly achieved and more time could be spent on elaboration on the meaning.

Stage Four

The fourth stage of the meaning making process was the final version of the memory narrative. This was the child's dictated version recorded by the teacher. As might be expected, this final version was richer in content and expressed more fluently than the rough draft. Children and teachers alike took pride in the results of their efforts.

Children took complete responsibility for organizing and putting all the parts of the event together and figuring out how to say it. Teachers inevitably got them started by asking the children to start at the beginning, "Now tell me how your memory started that day you went to the zoo...How'd you get there?" For long narratives, if children got bogged down and seemed to be searching, the teacher would often read back the last part of the child's memory, to reactivate the retrieval. The most useful of these techniques were when the teachers statements were specific setting details: "Now let's see, you said mom was carrying Abby's bed down the stairs, and you were in your room looking out..."

These stage four "final versions" were not all well organized, syntactically correct and fluid deliveries. Inasmuch as they were truly products of the child's own

ideas, remembering skills, and communicative competence, they were representative of the age group and unique child abilities. In most classrooms, the memory book activities took from 45 minutes to one and a half hours, a relatively short period of time to refine their ideas and oral presentation.

Analysis of the Strengths and Weaknesses of the Brief

Review of the Research Methodology and Rating Instrument

In this section of the discussion chapter, the researcher will briefly summarize the strengths and weaknesses of the research paradigm and rating instrument. While it was the intention of the researcher to conduct a more detailed analysis of the methodology and instrument, the parameters of this study were broad, and an extensive review is not possible at this time.

The Research Methodology

The memory book activity was successful in achieving the goals of the study and in it's popularity with both teachers and children. In meeting the methodology criteria of studying children in natural and optimal conditions, teachers and children fell easily into the four steps of the memory book activity. They enjoyed the task and felt they had accomplished a worthwhile activity at the end. Many of the teachers have informed the researcher that they repeated the activity following the initial data collection

because of the insight it provides into the children's
thinking, the language and literacy growth potential, as
well as the promotion of self concept with the children.
The parent group also felt positive about the method. Thus
its viability as an effective educational tool makes it a
good research paradigm to use, especially in classrooms.

A second goal of the research paradigm was met- that
of having children engage in a task which made sense to
them and which they understood. The special emphasis in
the instructions to teachers (in steps one and two) to help
children be clear on the task helped the teachers to carry
this through with the children. The majority of the
children were able to recall a memory (m = 2.7), with only
six children unable to narrate a memory in some form.
Children seemed to be fully aware of the nature of the task
once the teachers set the stage with their own memories. A
vivid demonstration of the fact that the children were
cognizant of thinking about something that happened in the
past occurred in an Appalachian Head Start classroom. A
three and a half year old was excitedly talking about her
trip to the circus three weeks before the retrieval event,
and she prefaces each new contribution with..."and you know
what else?"

    Susie: and know what the tigoos ride?...at the
       motorcycle! (laughs)
    Tchr: a motorcycle!Well how did they get on the
       motorcycle?

Susie: they gus dumped on! and know what else?

At this point, another child interrupts momentarily and
distracts Susie.

Tchr: (turns back to child) What else Susie?

Susie: aw shoot....I can't...I thought about that

Susie's face lights up...Oh I remember

In this example, Susie momentarily forgets what she wanted
to say because of the brief interruption by another child,
but then remembers. This three-year-old girl not only
shows her understanding of the task and what remembering
means, but she also demonstrates the metacognitive ability
of knowing she was thinking about something when she is
trying to recall..."I thought about that."

Because the memory book activity occurred in four
steps, the children had more opportunity to revisit their
ideas and to organize their memories. This gave the child
greater access to participate in the process. In many
research procedures, children must respond in one fairly
short time period or get a single chance to complete the
task. Many of the children were not ready to participate
until the end of Step Two or in the picture-making stage
(Step Three). Some children were not ready to report on
complete memories until the last step (Step Four) during
the final narrative.

The memory book activity was challenging to the
children, both cognitively and communicatively. Since the
children were required to retrieve and report on an

experience which the teacher had not experienced, the children did not have a readily available common understanding from which to proceed (as is often the case in school tasks). In order to be coherent, the children had to draw on all their skills to bring the teacher and their peers to a point of common understanding. Teachers do not often begin their scaffolding with no or little information, "in the dark." Teachers are therefore required to apply all their skills in helping the child access his knowledge without taking over the memory narration. Also, in typical research paradigms, subjects are recalling something that both the researcher and subject have experienced and the task is some ways easier. In the memory book activity, both the teacher and children are put in a position where they must draw on their communicative and, for the child, cognitive skills.

The design of having children choose the to-be-remembered materials was both positive and negative. On the positive side, all children had rich array of their own culturally significant experiences from which to draw, so all the children had equal access to the task. This counteracts the problem of having children recall something that may or may not be salient to them. From a negative perspective, not all the remembered events were of equal complexity. This entailed meticulous rating of memory completion.

The most obvious weakness of this research method is
the time-consuming nature of the transcript development and
rating. While the data collection was accomplished in four
months, it took twice as long to transcribe the videotapes
and rate the transcripts. It is not a method which can be
quickly assembled, nor rapidly analyzed.

The Instrument

The design of the rating instrument to record the
reciprocal interactions of teachers and children rather
than rate each individually enabled the raters to more
accurately focus on what was actually happening during the
memory book activity. There were times when a teacher's
actions were perceived very differently by the child than
the rater might have predicted. The process of evaluating
the whole teacher/child interaction, rather than sampling,
focused the raters of the fact that individual responses of
the teacher and children were interpreted by the
participants themselves as part of an ongoing interaction
rather than as isolated responses. This aspect of the
instrument proved to be successful.

Another strength of the instrument was the aggregate
of behavioral indicators identifying each of the four
context features. These indicators proved themselves to be
observable and fair measures of the variable that was
examined. They could be used by researchers or educators

interested in examining this characteristic of children's meaning-making.

A drawback of the instrument is the number of context features and their defining indicators. Using the instrument in its current form is a lengthy process for the raters. Since the context feature, discourse format, did not prove to be a significant predictor of coherent and complete memories, it is suggested that this context feature could be dropped in future research.

The indicators of <u>resolution</u> in memory completion and thoughts and feelings were evidenced so little by these three to five year olds that future rating systems do not warrant their inclusion. Reanalysis of the data will be done to make the instrument more succinct.

C H A P T E R   V I

SUMMARY, CONCLUSIONS AND FUTURE RESEARCH

This last chapter begins with a summary of the research will be presented. Then conclusions and implications of the study will be addressed. Finally, the potential areas for future research will be suggested.

Summary of the Study

Based on the idea that children build from their own base of knowledge and therefore teachers need more insight into what young children are learning and how they are interpreting experiences in their lives, this study was an examination of a meaning-making process and the guided participation which constituted that process. This research draws from three bodies of literature which inform the study of meaning-making.

First, the study is based on the sociocultural view of cognitive development which focuses on knowledge as a social construction (Vygotsky, 1978). Cognitive development proceeds as an interaction between the child, the child's interpersonal relationships and the cultural mileu in which the cognition takes place (Rogoff, 1990). This research follows a model of cognitive development proposed by Barbara Rogoff, which she describes as an appreticeship in thinking, and which centers on two concepts: guided participation and appropriation. In

guided participation, expert partners participate with
novices collaboratively in culturally valued activities.
Children are largely responsible for putting themselves in
a position to learn. Appropriation is the process by which
children transfer the meaning they have taken from one
activity to another, similar situation. Critical to the
concept of appropriation is the focus on the child's
interpretation that is carried forward, not necessarily the
meaning of the expert. Central to this model is the idea
of intersubjectivity, a concept developed by Vygotsky
(1978), wherein two people engaged in a dialogue can
transcend their private worlds and negotiate a shared
meaning, a temporary social reality (Wertsch, 1985).

The second area of research from which this study
emerges is that of narrative memory. The research
literature as well as the previous work of this researcher
have documented the fact that young children can remember
personally significant events over a long period of time.
Nelson (1990) describes how children use general event
representations to make sense of their world. White and
Pillemer (1989) propose that there are two memory systems,
a flashbulb memory and a narrative memory, which appear
when children develop communicative skills. The narrative
memory (children's report on a past event in their lives)
is a good representation of the meaning-making process
practiced by young children and thus was chosen as the
dependent variable of this study. Asking the children to

choose an event that was salient to them consituted an optimal kind of meaning-making situation for children, in order to study children at their "best."

The third area of the research literature was classroom discourse. Sociolinguists have determined that the social context features in classroom discourse determine the way the curriculum is realized (Cazden, 1984). Classroom discourse is governed by context specific structures and participation cues (Green, 1983). It is only in the course of the interaction that participants develop an idea of what the context is and shape their discourse accordingly (Erikson, 1981). The social context thus determines what gets learned and understood. Based on two previous studies of the classroom discourse (Perry, 1984, 1987), four specific features of the social context were determined to facilitate the mean-making process, and were used as the independent variables in this study.

The problem was to enhance teachers' understand about the kind of educational contexts that help children access and report on their knowledge, and provide insight into the meaning-making process. The purpose was threefold: (1) to describe a meaning-making process; (2) to determine if four features of classroom discourse enhance meaning-making; and (3) to develop a research paradigm which treats meaning-making as a dynamic event where teachers and children and their sociocultural context are examined simultaneously.

A research protocal and instrument was developed in the form of a four-step memory book activity. In the first step, understanding the task, the teacher shared a memory from her own childhood to help the children understand what memory meant. In the second step, the children were invited to share their own memories and the teacher offered a number of choices, such as "a time when you were afraid." After the children shared their memories, the teacher wrote summaries on a chart and recapped each child's memory. In step 3, the children made pictures representing their memory and, in step 4, the teacher wrote the children's retelling of the remembered event in the memory book.

The memory book activity was implemented by 36 teachers with 4 to 8 three-, four-, and five-year-olds in five different socioeconomic school settings. The videotaped activities were transcribed by the resarcher and the videotapes, transcripts, and memory books were used as the data.

The children's memories were rated by two independent raters based on a four point rating system to determine completeness and coherence of the memories. The transcripts from the memory book activities were then coded using a rating instrument designed to employ a strategy called event analysis. In event analysis, the unit of analysis is the total activity (the memory book activity) rather than looking at teacher and children and context separately. The rating instrument was used to determine

the degree to which each of the four independent variables was practiced.

Multiple regression analysis was used to test the hypothesis that the degree to which the four context features (child meaning, personalizing, conversational format, and peer contribution) are in evidence will be related to complete and coherent memories.

Results indicated that child meaning was a highly significant predictor of complete and coherent memories, accounting for 70% of the variance. Personalizing also contributed to higher memory performance. Conversational format and peer contribution were not predictive of high memory scores.

Qualitative analyses of the patterns of guided participation and meaning-making revealed that guided participation is a collaborative process that centers on the child understanding that the teacher values his or her personal knowledge. The meaning is co-constructed in the oral discourse with the child and teacher sharing the responsibility for establishing the child's meaning. Personalizing the child's memory narratives made them more explicit, helped to instantiate the child's memory, and gave the children a greater sense of ownership over the memory narrative than the memory narratives which were not personalized.

Qualitative analyses also revealed that the meaning-making process emerged in four stages: stage one, in which

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the task was defined; stage two, production of a rough
draft; stage three, editing the memory narrative; and stage
four, the final version.

Conclusions of the Study

The conclusions that can be drawn from this research
fall into two related areas of the developmental
literature: cognitive development and the process of
meaning-making in general, and early memory. The first
four of five conclusions which emerge from this research
are "nested" within each other, and as such, are closely
related. Effective meaning-making in tasks such as the one
represented in this research, retrieving and narrating a
personal memory, can be described as social, collaborative
and personalized in nature.

Cognitive Development and Meaning-Making

The data gives strong evidence of the concept that
knowledge and meaning are socially constructed. Children
used the discourse they have with their teachers to compose
and revise their own interpretations of experiences in
their lives. Even children who brought concise ideas to
the memory book activity about what happened and why it
happened, reorganized and elaborated on their understanding
as the discourse proceeded. Furthermore, the social medium
through which the meaning is ultimately constructed by

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these young children is oral discourse. Three- to five-
year-olds are not able to use print with sufficient fluency
to express their ideas, or have "silent discussions" with
the ideas in print. The pictures made by the children for
their memory books helped them elaborate on their meaning.
But this elaborated meaning only became socially available
when the children talked with the teacher about the
relationship of these rough symbolic representations to the
remembered event.

   *There is a particularly good match between how a
young child makes sense of his or her environment and oral
discourse.* Both are reciprocal and dynamic in nature, thus
discussion which can easily change directions, lends itself
to the nature of child meaning, which seems to "come alive"
and take shape in the discourse.

   The second conclusion of this research emerging from
the concept of the social construction of knowledge, is
that *meaning-making is a collaborative process where
children and teachers negotiate the meaning.*
Traditionally, the teacher is not thought of as a
collaborator and negotiator. The teacher is still thought
of as one who imparts knowledge, as one who may negotiate
conflicts in the classroom, but not knowledge. Yet, .
throughout the memory book activities, children who were
most successful in the meaning-making process had teachers
who engaged in both collaboration and negotiation.
Children and teachers worked together to produce the

child's meaning, each bringing their own sociocultural perspective to the discourse. It was apparent in the data that even when the teacher and child came from similar cultural environments, there were subtle, but important differences in meaning. Children needed to negotiate their own ideas with the varying perspectives and different realities of the teacher. The teachers reciprocated with a willingness and ability to negotiate and reach common grounds of understanding with the child.

But the model presented by this data, does not concur with that presented by Bruner and colleagues of the teacher building a scaffold (taking full responsibility) which is gradually diminished as the child is able to perform on his or her own (Wood & Bruner, 1976). Rather, the responsibility for producing meaning goes back and forth between teacher and child, with the teacher at times providing a structure, as, for example, when the child needs help reorganizing or elaborating on their understanding. On the other hand, the children may come to a point early in the meaning-making where their own personal understanding enables them to take over complete responsibility for the meaning. The willingness of the teachersto give the controlof the meaning-making to the children was critical. This point leads directly to the next conclusion of the study.

The third, and most compelling conclusion of this study, is that *three to five year old children are more*

competent in making their meaning socially accessible when teachers value children's personal meaning, and perceive it as critical to cognitive development. In classrooms where children were most successful in the narrative memory task, this commitment to child meaning translated into practice in the teacher's promotion of the child's own choice of event, conveying genuine interest and efforts towards helping the child roduce a coherent and complete accounting of the child's memory. However, it was only when the children understood their role as the creator of the meaning, their own meaning that the process was successful. This collaborative engagement of both teacher and child went beyond the initial question in the disourse, it continued throughout the discourse. When children faltered or were vague in their narration of the memory, teachers continued to support and accept these partial or disorganized responses, helping the children to reflect on the event, assisting the children by pulling them back into the discourse so they could pick up on the narrative. When children see themselves as capable of autonomous thinking, the process is enhanced.

The fourth conclusion that can be drawn from this study of children and their teachers is that *"personalizing", bringing parts of the child's unique circumstance into the discussion through gesture, pictures, actions, participant quotes and the like, enhances the meaning-making process.* Emerging from the foregoing

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commitment to the production of children's meaning-making
is made more explicit, comprehensive and stated with
greater authority when the children are allowed to
personalize rather than decontextualize their reports.

The fifth conclusion of this study of cognitive
development is that the meaning-making process proceeds
over time, in stages that may at times be loose and
disorganized. The process is not necessarily orderly and
hardly ever instantaneous. Of the four stages--under-
standing the task, producing a rough draft, editing, and
final version--the first two are probably the least
appreciated in classrooms for young children. Children in
the memory book activities demonstrated that understanding
what they were being asked to do, and how they were
expected to perform that task was vital to the success of
the task. The second stage of meaning making, helping the
child to report on some idea, even in a form that is
incomplete both cognitively and communicatively, the rough
draft, seems to be a prerequisite for many children to
producing a more complete and coherent memory. The third
stage of reorganizing, adding to or changing information,
or verifying what was produced in the rough draft also
seemed necessary to producing the final version.

Early Memory as it Relates to Meaning-Making

This was not a study of memory ability and development
per se. But, since remembering a past event was used as

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the meaning-making event in the study, the findings relate
to early memory functioning, which is part of many
cognitive acts. One conclusion demonstrated in the data
that follows directly from the previous statement is that
the ability to remember cannot be separated out from the
social context features in which the retrieval is embedded.
The memory retrieval process was closely related to the
social contexts which characterized the memory book
activities. Neither can memory be treated as an isolated
function without also considering the other cognitive
skills involved in remembering, such as communicative
ability.

This researcher concurs with findings that preschool
children are fully capable of remembering salient, past
events, particularly when enhanced by a research design
which was ethnographic in nature and permitted the
researcher to look on as teachers collaborated with
children in an "everyday style" activity. Not only did the
children produce rich memories, but both teachers and
children enjoyed the process and the product, undoubtedly
facilitating the memory retrieval.

The data from this research, however, suggest a
somewhat different picture of the relationship between
early memory and the ontogeny of knowledge than that
presented by Nelson and colleagues (1986). There is
abundant evidence that scripts and generalized event
representations are formed early in life and are easily

generated by children. However, it is not entirely clear that these general event schemas serve as the major core of the early memory system. Inasmuch as the young children use remembering to guide and predict their future actions, and inform new experiences, the data from this study suggest that young children may also draw from the fund of personal experiences they have had. These personal experiences may remain as salient, one-moment-in-time events rather than being consolidated into one generic script model. General schemas may be confirmed or deployed, as Farrar and Goodman (1991) suggest, in some instances when children are struggling to make sense of a new experience. However, in other instances, a single salient episode may be instantiated, which serves as a prototype for that child for that particular kind of event. In this case, the prototype serves to guide thinking of the child, but remains as a single instantiation, rather than necessarily becoming more generic in nature. This model would suggest that both script and episodic knowledge are brought to bear on making sense of new experiences, depending on the problem solving situation and the child's particular experience with that kind of situation.

Implications for Educational Practice

The most direct implications of this study are the potential long-term gains for children when teachers actively engage with them in the process of helping the

children produce their own meaning as the learning proceeds in classrooms. This study has demonstrated that *childrens' personal experiences and interpretations deserve a more prominent place in the curriculm of classrooms in the early learning years of school.* Our schooling traditions have depersonalized and structured education in a way that tends to place a high premium on decontextualized learning. As children construct an understanding of their world, and as they move through the school years, they are expected to understand subject matter at increasingly more abstract and decontextualized levels. Throughout the elementary years, more and more of this information is introduced through print. Children must make sense of this new knowledge, these new experiences. They must make this knowledge their own. Children bring their own interpretation, their own understanding of past experiences to this task. When teachers provide opportunities within the official curriculum for children to "dip into" their own personal lives, children are able to capitalize on their fund of personal experience as a frame of reference for exploring new ideas. This realm of knowledge, constructed as it is in the richly contextual settings of their daily lives, is a secure body of knowledge. This allows children to operate from a known and secure base, as they explore new ideas in the social dialogue, and thus revise their own.

Most of the child's school day is spent in activities where the teacher is the expert "knower" and the child is

negotiating the teacher's meaning. In order for children

to become autonomous thinkers, children need times during

the school day when they can work with very familiar

knowledge contexts. Children need more opportunities in

classrooms to set their own agenda of ideas and gain

practice as the more expert partner in the teacher/child

collaboration. Activities such as the memory book activity

used in this study can be used to promote both cognitive

and communication skills. The use of narrative is a tool

which all children inherit (Bruner, 1990) so it provides a

natural medium for the art of meaning-making. Reporting on

their past experiences gives children and teachers valuable

practice in meaning-making. As Rogoff (1990) has so aptly

stated . . . children are apprentices in thinking. As

apprentices in the early stages, not only must they master

the body of knowledge presented in the curriculum, but they

also need to see themselves as competent meaning-makers.

As children take responsibility for organizing and

making their personal experiences socially available to the

teacher and their peers, they are able to take command. By

calling upon a reservoir of knowedge they know well, they

are better able to manipulate and reorganize ideas, to

defend their own point of view, analyze and reflect on it,

clarify, elaborate on and edit it. This process provides

an imortant foundation for "knowing," for being a knower.

The bridge between the teacher knowing and

understanding the ideas in the curriculum and the children

knowing and understanding the ideas in the curriculum lies
to a great extent in the public and private discourse that
children have with teachers in the classroom. Through the
discourse in the memory book activities where child meaning
was high children had opportunities to focus on an idea
that had meaning and relevance to them. Children were able
to use the discourse to build on their ideas and create the
language neccesary to communicate those ideas. The
extended discussions were a rare opportunity for many of
the children. Teachers interested in promoting child
meaning in the classroom can examine their own classroom
discourse and ascertain that children have opportunities to
explore ideas, to develop and pick up on topics in extended
discussions.

Teachers use a combination of the curricular plan, the
physical space and their teaching interactions to design
their instruction. Some believe that the core of teaching
lies in a well designed curricular plan where the role of
the teacher and student is planned in advance. The teacher
implements the lesson, providing the information or
demonstrating a skill which the children acquire step by
step, bit by bit in an additive fashion until they have
mastered the entire body of knowledge, and/or learned to
perform the skill independently. While the majority of
teachers understand that children learn at their own pace,
that some will learn and some will not, most teachers'

curricular plans consist of a predictable learning dialogue.

This research suggests an alternative focus. *Teaching needs to be viewed as a process in which a sequence is not pre-set or predictable, but rather is responsively constructed.* Teachers still need to prepare the curriculum plan in advance, prior to the actual teaching, to arm themselves with the necessary materials, knowledge and plan for teaching skills. However, critical to learning is the teacher's understanding that a large part of what children come to know and understand is constructed and carried in the dialogue as it proceeds. The actual meaning-making may take different paths from those planned in advance. If teachers see their role as a collaborator with the child, rather than an imparter of knowledge, they will work towards understanding what the child believes as the discourse proceeds, as well as the specific curricular agenda. Teachers need to be alert to what "curriculum" is actually being accomplished and build on the interaction. The learning is not accomplished through one or two question and answer sequences with a child. Particular meaning is being constructed through the discourse with both the child and the teachers' contributions rooted in their previous understandings and experiences.

Even good and sensitive teachers are often uncomfortable with the changing and unpredictable nature

that seems to be the course of children's meaning-making.
It is less precise, less understandable. There are many
unknowns, not just the immediate task of grasping the
knowledge or skills presented in the problem. The most
critical unknown is what the child brings to and takes away
from the activity and dialogue.

In the beginning stages of meaning-making, young
children's thinking may be exploratory, and probing, an
incomplete draft. There may be no bypassing this stage of
meaning-making for many children. Adults, especially
teachers and parents, have a tendency to take over the
child's meaning when they hesitate. Children can be led to
repeat the appropriate words (the teacher's meaning) and
the teachers' work may seem to be verified when children
state decontextualized, conventional knowledge. Yet, most
often in these cases, the knowledge still resides in the
teacher, not the child. Children and teachers collaborate
in the meaning-making process, but, in the end, the child
leaves with his or her own understanding. Rather than
dismissing these early attempts as an inability to make
meaning, these beginning probes and rough drafts should be
treated as the beginning of the process. There are no
quick and easy routes from public or teachers' knowledge to
children's real understanding about that topic. Even
higher-order thinking that scientists engage in involves
personal interpretations of the data.

Meaning-making is a very complex process which cannot be reduced to one behavior the teacher employs to help the child produce meaning. Meaning-making is a reciprocal and dynamic process which involves many features of the social context interacting simultaneously . Teachers must be prepared to honestly provide responsive educational contexts for children to make their own understandings socially accessible. As teachers learn how to collaborate with children to this end, more children can become the meaning-makers in the classroom.

Future Research

This study has investigated a number of methodological as well as content issues in the area of how knowledge is socially constructed in the early years. However, this is only the beginning of this work. Many questions remain to be answered.

Will these findings be replicated if children are remembering "school" knowledge instead of an event in their lives? It would be useful to implement this study in a variety of school settings, to ascertain whether the teacher's valuing of a child's interpretation and personalizing his or her narrative about an area of social studies or science is related to better remembering about that topic.

Another question which yet needs more documentation is what kinds of events in their lives children remember.

This study has produced a multitude of child memories which can be analyzed to determine what the universal kinds of events young childen remember, as well as whether there are culturally specific events that get stored in long term "memory banks", ready to inform or guide future behavior. These events are, after all, our sociocultural history.

The strategy of using event analysis in order to capture processes such as the relationships between the teacher and child and school studied in this research need to be refined. While the research paradigm and rating instrument offers real promise, a more detailed evalution of this methodology and rating instrument is neccesary in order to continue this kind of research.

Another area of future research which may be fruitful is to explore the interesting patterns that evolved in the four stages of meaning-making suggested in this research. Will these four stages be replicated in other school communities, in home settings?

This research began ten years in the form of three projects at Harvard University on the study of narrative memory, classroom discourse and guided participation and the sociocultural view of cognitive development. The intersect between the three areas of the literature has enlightened our understanding of cognitive development, and provided insight into the relationships that are implicit in meaning-making contexts. As researchers and educators we need to reflect and act on these insights so that the

subjects of this research are also the recipients of it's

findings.

APPENDIX A

LIST OF MEMORABLE EVENTS

Memorable Event Categories

receiving a special toy
dentist/doctor/hospital visit
new baby
death of a parent
trips
incidents with pets
being scared
separation (left alone; babysitter; going to a preschool;
accidents, sick, hospital stays)
being in extreme weather conditions
getting lost
learning a new skill: swimming, riding a tricycle, etc.
church
being in a dark place
when someone in the family got sad
getting into or causing trouble
moving
going to bed
punishment
being in a play/dance (performance)
holidays and special occasions

APPENDIX B

FOUR STEPS OF THE MEMORY BOOK ACTIVITY

Memory Collection Procedure: Instructions for Teachers

The following is the memory collection procedure which was used in the study, and the instructions which were given to the teachers.

In an effort to avoid influencing the child's memory, and to assist you in eliciting coherent and complete memories from the children, I have documented the following four steps of memory collection to be administered in two stages. Research in the past has demonstrated that even standardized tests such as the WISC or Peabody are social interchanges and test participants are involved in defining the meaning of the task instructions during the course of the interaction. Therefore, I recognize that your implementation of the Memory Book Activity will reflect your own special communication style. Try to complete both stages of the memory book activity within a week. If children who are randomly selected to participate in the activity do not want to do a portion of it, encourage them, but do not try to force them. Your basic job is to encourage the children, use your best teaching strategies, in order to get as complete a memory as possible.

Stage One

Step 1.   Defining the task for the ch ildren.

Probably, the most important phase of this research is being sure that the children understand the task demand. During this first step, you will be helping the children to understand that they are to tell you about an event in their lives that they can remember. The teacher starts off by saying . . . "We are going to make a book about your memories - something that happened to you when you were little, or even a short time ago". (Please avoid using the word "story," as that often means something else to the children). Then give examples of something you remember from your childhood. For example, . . . "I remember when I was riding a bike and I always went by this big house. Once a dog came out and started chasing me . . ." Keep your memories short, but add enough details so that the children understand that you want them to tell as complete a memory as possible. Give two very different examples, and emphasize that everyone has different kinds of memories of things that happen to them . . . "Your memory will probably be very different from mine . . . who remembers something different that happened to you, a time when you were afraid, or got a special surprise, or were really sad?" Give the children three or four categories from the attached list.

Step 2.   Preliminary sharing of children's memories.

At this point, invite the children to share their
memories for the book. Have your chart paper handy so you
can jot down a summary of what the children share. Some of
the children may not think of something now and that's
okay. If a child is obviously copying your memory, or
another child's memory, say something like . . . "that's
what happened to me (or Sam), I want you to tell me about
something that happened to you," or "do you remember
something else that happened to you?" If children share
something that is going to happen in the future ("Next
year, I'm going to the big school"), say . . . "That is
something that is going to happen to you, can you remember
something that already happened?" After everyone has had a
chance to share a memory, read each child's memory out loud
and add any further comments that the children remember.
You and the children will be videotaped, so you don't have
to write everything or worry about the exact language the
child uses. At the end, teacher will tell children that
later everyone will get a chance to make a picture of their
memory for the memory book.

Stage Two

Step 3.   Drawing a picture of your memory.

While the other children are engaged in free play,
take one or two children to make their picture. Use the
paper and markers supplied by the researcher. Help the
children get started by reminding them of their memory.
Ask them what is one thing they need to include in the
picture of their memory. For example, for a boy who
remembered his first haircut, the teacher asked . . . "What
was in the barbershop?" For a girl who remembered going to
visit her nephew (Willie) in North Carolina, the teacher
said . . . "You said you liked Willie's dog, maybe you
should draw his dog first." Remember, the picture is just
a symbolic representation of the remembered event, not an
exact replica. If the children say they can't draw it,
help them get started. For example, teacher draws a not so
perfect large oval . . . "Was Willie's dog bit like this,
or was he small like this?" (teacher draws a smaller oval).
Did he have legs? Encourage the children with comments
like, . . . "Good, now you have his dog" and write
"Willie's dog" beside child's representation. "Now what
else was at Willie's you need to put in your picture?"

Young children often need another medium besides
language to portray their thinking. The picture se rves as
a non-verbal mode and helps the children remember more
details about the event.

Step 4.   Writing child's memory on picture.

        After they have finished the picture, tell the
children you are going to write down their words describing
the memory, so that when people read the book, they know
what happened.   Write child's retelling of the memory on
bottom of paper or a separate page opposite the picture.

APPENDIX C

STANDARDIZED VS. PREDICTED SCORES FOR MEMORY COMPOSITE
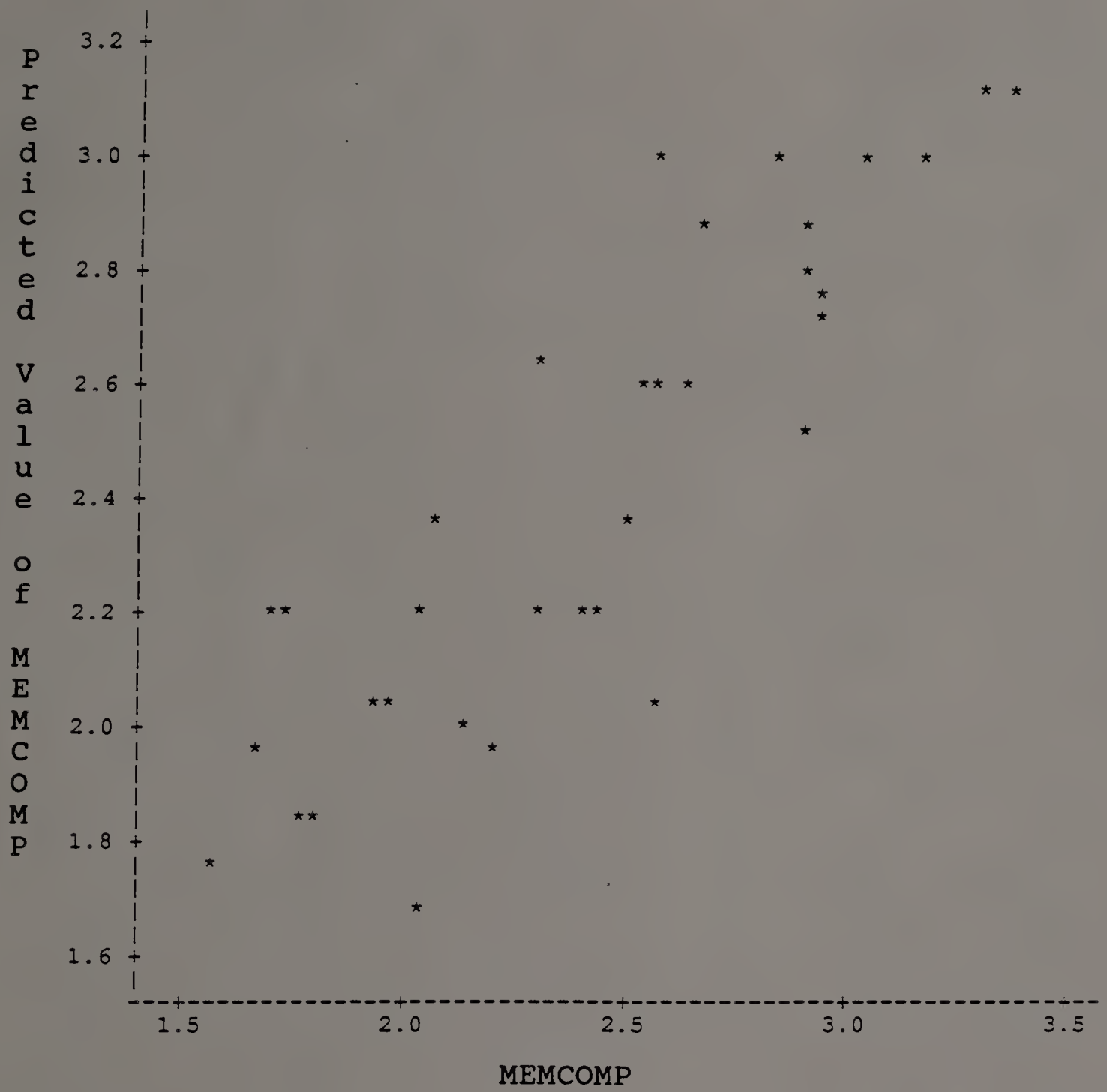
Figure 10. Standardized vs. Predicted Scores for Memory Composite

APPENDIX D

SCATTER PLOT OF RELATIONSHIP OF CHILD MEANING TO MEMORY COMPOSITE SCORES
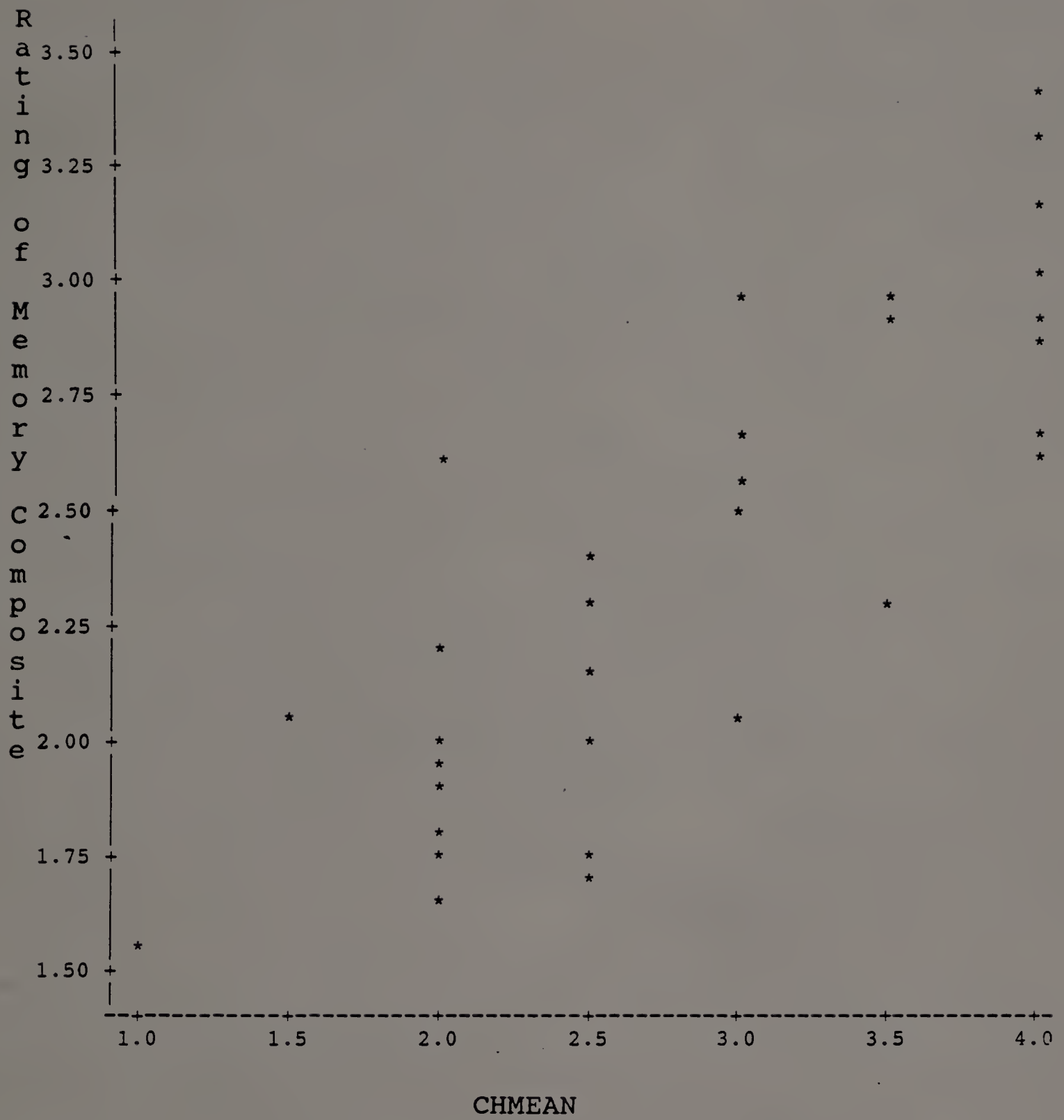
Figure 11. Scatter Plot of Relationship of Child Meaning
to Memory Composite Scores

SCATTER PLOT OF RELATIONSHIP OF PERSONALIZING
TO MEMORY COMPOSITE SCORES
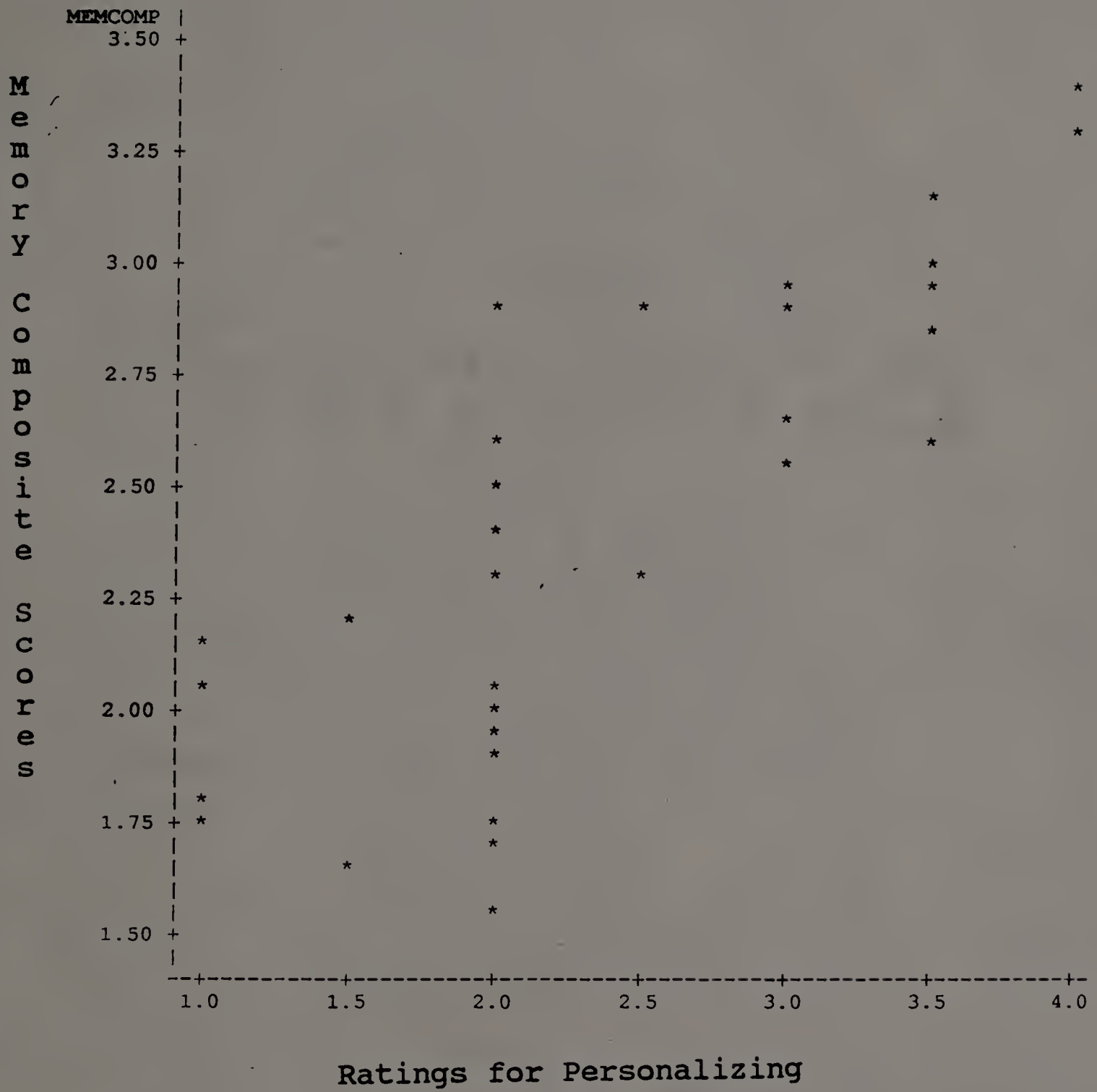
Figure 12. Scatter Plot of Relationship of Personalizing
to Memory Composite Scores

APPENDIX F

SCATTER PLOT OF RELATIONSHIP OF DISCOURSE FORMAT
TO MEMORY COMPOSITE SCORES

Figure 13. Scatter Plot of Relationship of Discourse
Format to Memory Composite Scores

APPENDIX G

SCATTER PLOT OF THE RELATIONSHIP OF PEER CONTRIBUTION
TO MEMORY COMPOSITE SCORES
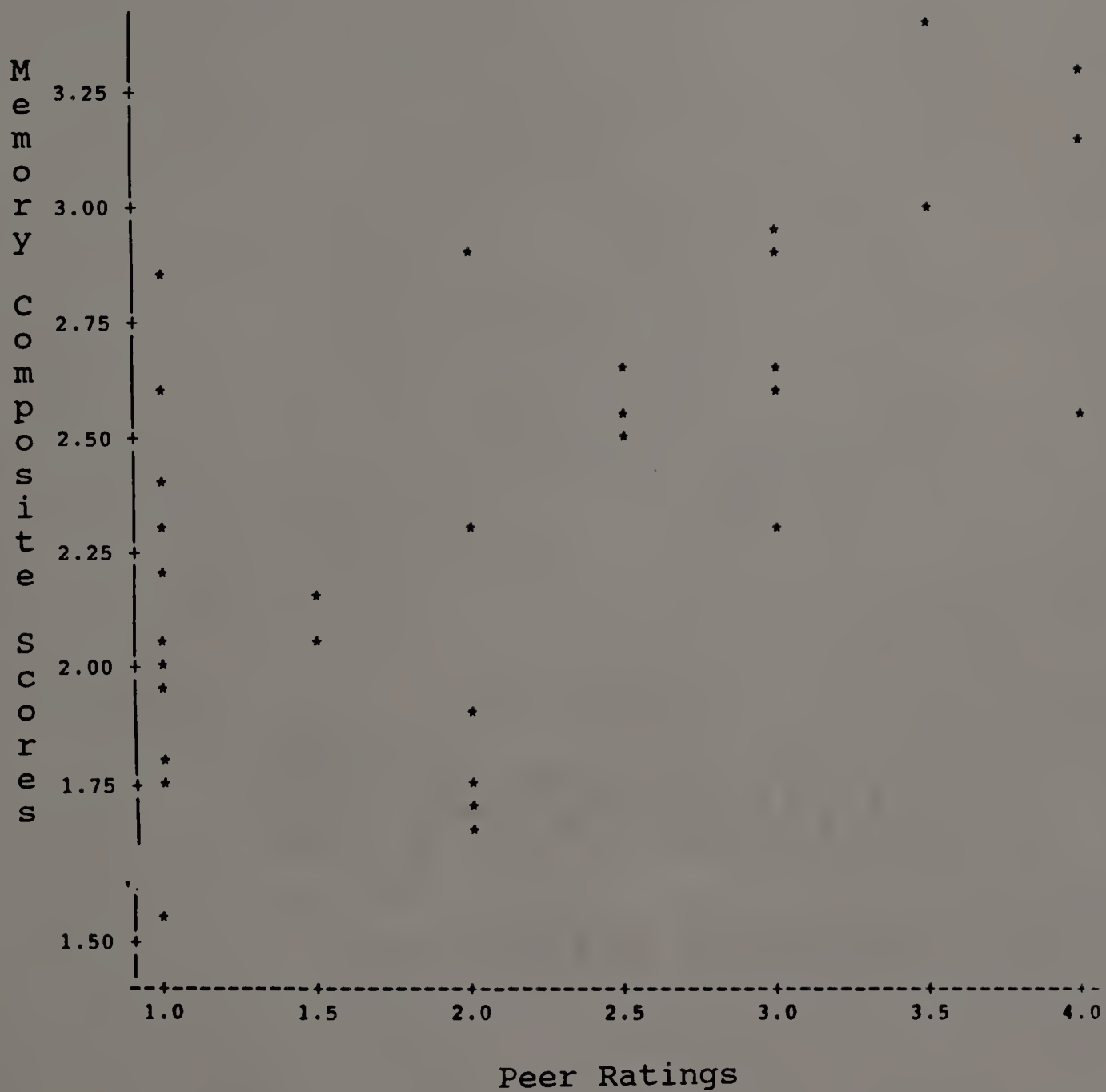
Figure 14. Scatter Plot of Relationship of Peer
Contribution to Memory Composite Scores

APPENDIX H

ANOVA SOURCE TABLE

Table 7

ANOVA Source Table

Source	df	ss	ms	F	Pr>F
between groups	2	7.298	3.649	9.14	.0002
within groups	196	78.228	.399		

APPENDIX I

EXAMPLE OF FOUR STAGES OF MEANING-MAKING

Example of Four Stages of Meaning-making

Stage one

Deb: We're going to make a memory book and we're going to put in it something you rememeber when you were a baby (ch speaks Yea that's something you remembered this morning when you were a baby). It could be something that happened when you were a baby or even last week. Now to get us started I'm going to tell you something that happened to me when I was about your age, I guess when I was about four. I might have been three, and it was in the summertime. My dad had a job down at the lake, down at deep creek lake and he decided one day he would take us all down there and we would get to go swimming in the lake. And we all got down there, and I have, like five brothers, can you imagine that? And they all went swimming out in the lake and they really liked it and I had a sister. And I was a little bit afraid to get in that water. And I didn't know whether I wanted to get in that water and I thought, there could be something big in that lake. So my dad decided he would walk me out so far in the water and he'd hold onto me. He thought maybe that would make me feel better. When I got to walking out in that water, it felt like sticks and mud, and it didn't feel too good and I started crying really hard. So then my dad had to bring me out and he thought it wasn't really too good of me, I didn't really enjoy his outing but . . . that's what I remember, every time I look at the lake I think about that memory and I always remember what it was like to walk on the bottom of that lake. It felt so squishy and maybe even a snake in there that would like to bite me. So I just went out and I paddled along side the lake, I didn't get to go in the water. Can you remember anything?

Deb: Let's see if we can get A to remember something, pay attention you might need to ask him some questions, and B you're a good question asker. What do you want to tell us about? (pats A in the arm) let's see what he remembers . . . this is something that happened just to him.

A: The other day when I wasn't here at this school, I been in the dirt with my truck and stuff

Deb: Well that's something neat that happened one day. Let's see can you remember something that made you really happy (takes his hand in invitation).

A: I have my birthday.

Deb: Well, what happened then?

A: I am going to get really rippin and tearin an I can
     get wicked on them presents

Deb: wicked? That's something that is going to happen on
     your birthday. Tell us about something that happened
     to you already, like JJ remembers when his trailer
     burned down.

Stage Two

A: and dad . . . we had to take him to the vet cause he
     had something stuck in his throat . . . his head was
     pushed down

Deb: Well do you want to tell these guys, do you . . .

A: He was getting to put to sleep

Deb: Do you want to find out what happened to his doggie .
     . . This must be something sad, I wonder what happened
     . . . want to ask him JJ?

A: Well we had to put him to sleep and he got to go to
     heaven where my granpa is

JJ: One time I git bite by my dog Ginger and him got run
     over by a car and ??? and I'm never seen him again

A: Well I haven't saw my dog for a long time

JJ: I didn't either . . . that was a long long time

Ch: My dog got killed . . .

A: And we had to go git me a puppy.

Stage 3

Deb: Well I wonder what made his dog Freddy die, does
     anybody know?

 A: Because the bone stuck in his throat

Deb: A bone got stuck in his throat? myyy . . .

A: He just liked to ate bones

S: asks inaudible question

A: My dog /// but he don't jump cause the bone was stuck
      in his throat and man he need ??? trimmed? but his
      toes couldn't get trimmed at the vet and I saw a big
      turtle at the vet

Deb: you did?

A: in a tank

JJ: Did you dought[buy] it?

A: What the turtle?

JJ: for your birthday?

A: the turtle? No I can't take it home

JJ: Cause you couldn't pay for it? How much is it? How
      much is it?

A: ten dollars

JJ: One time my daddy bought one for my birthday and it
      run away and it was six dollars

A: Guess what I'm gonna get for my birthday? (what?) a
      bucket of money and I'll be rich . . . lots of money

Deb: money? (laughs) . . . A, how did you know the dog had
      a bone stuck in his throat?

A: Because I just . . . they opened up his mouth and I
      didn't see nothing because it was dark inside

Deb: So then what happened?

A: So then we had to go and of course ?????? who see
      Reggie, him went had to go and get his eyeball pumped
      out . . . so he could still see without his eye, he
      could still see with his other eye, and we're allowed
      to play because he's got ??????

Deb: Is this the same time he had the bone stuck in his
      throat?

A: No I was livin up. . . . . I was in Crellin

Deb: Now the dog that got the bone caught in his throat
      what was his name?

A: Freddie

Deb: and Freddie is the same dog that got hit in the road
      and got his eye out?

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A: No that was Reggie

Deb: Ok, well we're talking about Freddie

A: And the other one who got his eye poked out, that
      wasn't my dog that was Linda's.

Deb: Who saw that the bone was stuck it his throat?

A: Nobody, I couldn't see it was dark in there and mommy
      couldn't see

Deb: Right, so then what did she do?

A: the man couldn't even see and he had to stick a needle
      right here in his back and it hurted, I mean it
      hurted?

Deb: how did you know that?

A: Because it (the dog) didn't even go at all

JJ: It was because the bone was down there stuck in,
      that's why

Deb: But who knew the bone was stuck down there at all?

A: I know because that doggie drag bones down there
      before he fights. . . he fights the brown dogs

Deb: He fights the brown dogs?

A: yep and he can't fight with bones in im

Deb: He can't fight with bones in his throat. Well I
      wouldn't think that. So what did you do? What did
      mommy decide to do when she found bones in his throat?

A: You couldn't see, you couldn't see the bones

Deb: So what did you do?

A: We just took him up to the vet and he got put to sleep
      . . . and I wish he wouldn't have the bones stuck in
      his throat

Deb: What did you do after?

A: Well we went home and my . . . my . . . one time my
      mom saw this little puppy in the magazine . . . and
      went off and . . . and we went down to Dave's and we
      asked my dad if we could get the puppy and my dad said

yes so then we brought him home and of <u>course</u> the dog
went back to my dad's too.

Stage Four

Andrew: Ok that's a nice picture tell me about the day
            that you and mom had to take Freddy to the vet?
            What happened first? He gave him a shot at the
            vet (No, the first thing when you were outside,
            you were outside with Freddy and you thought
            something was wrong, what were you doing?) and
            there was a bone stuck that he never ate (a bone
            stuck where?) in his throat that he never ate
            (and what did you do?) I went with mommy (Well
            tell me Andrew just keep on telling me) an I told
            her "doggie Freddie's has a bone stuck in him . .
            . (and go on, what happened next?) He's always
            fighting with the brown dogs and I went out to
            see and he wasn't fighting. Then . . . my . . .
            then we took him to the vet and brought him to
            the vet . . . me and mom in the car . . . And
            they had to give him a shot in his butt and then
            um . . . then he had a um . . . then he hadda get
            put to sleep then we left (How come he had to be
            put to sleep?) To go the heaven (to go to
            heaven?) With my granpaw, he's in the same
            heaven as my granpaw (Ohhh. . . so then what
            happened?) We got a new puppy . . . you shoulda
            saw him, you shoulda saw my dawg (which dog?
            what's his name?) Snoopy (Why should I see him,
            what do you want to tell me about him?) Cause I
            want to take a walk up to see him today . . . so
            can we do that? (I'm not sure, we have some
            things we need to get finished today, so I can't
            guarantee it. Well what did you want to tell me
            about the day you got Snoopy? the day you got
            him?) I pat him (How did you get him?) He's
            somewhere down the road, but he's still in the
            garage now (Where did you get Snoopy?) From
            somewhere where dogs live . . . and they were
            police dogs (police dogs?) They weren't in the
            puppy cage . . . but they were big (They were?)
            Yea but they never got to go over in Snoopy's
            cage cause they didn't have a berry long chain,
            they didn't want the puppies to get hurt? (They
            had them in a separate cage from the big dogs?
            Well how did you know where to go get Snoopy? How
            did you know he was there?) Mommy took me and
            whenever we got him he jumped on me (Who went
            with you to get Snoopy?) All the puppies wanted
            to take us . . . all the puppies wanted to go
            home with us (How did you know they wanted to go
            home with you?) Because they loved us and jumped

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on us (really) I liked them . . . yea they were
so cute I couldn't stand it (Who'all went with
you to get Snoopy?) Mommy and Ben and me (Where
was daddy?) Down there at Dave's Garage in the
old mud, and in the old mud puddles (So you mommy
and Ben went to get Snoopy) Mine was all black
and he had a green eye and a blue eye (really,
you remembered a lot about that, so you decided
that Snoopy was the puppy that you wanted . . .
Who got to pick him out?) Mommy . . . mommy told
me . . . mommy told me to look in the magazine
and there was that poor ol Snoopy in his cage (in
the magazine? in the newspaper? Mommy saw the
picture of Snoopy in the newspaper?) Yea she was
looking in the magazine and she yelled for me and
I looked in and I said "I want that puppy" (Well
that's pretty neat, thanks for telling me that
memory).

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