This study examined the role of public preschool teachers in the construction of classroom literacy environments. Using qualitative methods for data collection and analysis, the research was intended to generate knowledge of teacher thinking and decision making for social and cultural phenomena taking place in a classroom. The study included ten preschool certified teachers in the same suburban parish public school system. Data were collected over a period of several months by means of interviews with teachers and classroom observations. Data analysis indicated the existence of a spectrum of literacy environments across preschool classrooms, with characteristic clusters along portions of that spectrum: (1) skills-based; (2) eclectic; and (3) emergent. Although similarities exist across the spectrum, each of the three clusters exhibits specific characteristics related to teacher beliefs about literacy, teacher planning and organization, classroom ecology related to literacy, and outside factors that influence teacher thinking. Skill-based environments are characterized by a skills-driven approach to planning and organization; classrooms with fewer literacy materials, activities, and centers; a teacher-directed focus; and teachers with a personal orientation who are isolated from peer relationships. Eclectic classrooms represent a middle portion of the spectrum, and are characterized by an approach that incorporates both themes and skills, and classroom ecologies that range between the skill-based environment and emergent environment. Emergent literacy environments are characterized by a holistic and integrated approach to planning and organization; classroom ecologies richer in literacy materials, activities, and centers; a child-centered focus; and teachers who are more actively involved in peer and professional relationships. (AA)
THE CONSTRUCTION OF LITERACY ENVIRONMENTS IN EARLY CHILDHOOD CLASSROOMS: A SPECTRUM OF APPROACHES

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This study examined the role of public preschool teachers in the construction of classroom literacy environments. Participants in the study included ten teachers with at least one year of teaching experience in preschool programs in a suburban public school system. Data collection methods consisted of interviews with teachers and observations in classrooms. Preliminary analysis provided an initial description of teacher beliefs about literacy; teacher planning and organization; the classroom ecology, including physical arrangement, curriculum, literacy activities and materials; and outside factors which influence teachers. Further analysis revealed the existence of a spectrum of literacy environments across the ten classrooms, with characteristic clusters along portions of the spectrum. Emergent literacy environments are characterized by: a holistic and integrated approach to planning and organization, classroom ecologies richer in literacy materials, activities and centers; a child-centered focus; and teachers who are more actively involved in peer and professional relationships. Skills-based literacy environments are characterized by: a skills-driven approach to planning and organization, classrooms with fewer literacy materials, activities and centers; a teacher-directed focus; and teachers with a personal orientation who are isolated from peer relationships. Eclectic classrooms represent a middle portion of the spectrum characterized by an approach which incorporates both themes and skills, and classroom ecologies which range between...
the skills-based and emergent classrooms with respect to literacy materials, activities and centers. Teachers in transitional stages of the spectrum are undergoing changes in their approaches to teaching and in their classrooms as they adjust to their first year in a new teaching context. These findings demonstrate that, unlike previous models suggest, preschool literacy environments exist along a spectrum represented by some similarities. Nevertheless, characteristic differences exist across clusters along the spectrum which result in characteristically different preschool literacy environments.
INTRODUCTION

Teachers in preschool classrooms plan and construct environments where children are socialized into schooling and into literacy (Fernie, 1988; Rasinski & DeFord, 1988). A spectrum of literacy environments exists across preschool classrooms, with characteristic clusters along portions of that spectrum: skills-based, eclectic and emergent. Although similarities exist across the spectrum, each of the three clusters exhibits specific characteristics related to teacher beliefs about literacy, teacher planning and organization, classroom ecology related to literacy and outside factors which influence teacher thinking. This description of the spectrum of classroom literacy environments evolved through a field-based study of preschool teachers and classrooms using naturalistic design and methodology.

THEORETICAL FRAMEWORK

Teaching has been called the "central process in education." It is the vehicle through which educational goals are accomplished (Gage, 1984, p. 87). Teaching is a "complex, demanding and uniquely human" task (Clark & Peterson, 1986, p. 293); it is both internal and external, involves both thought and action, and interrelates many different kinds of knowledge. Researchers who study teaching are conducting "concerted attempts" to understand the phenomenon of teaching, learn how to improve teaching performance, and discover better ways of preparing teachers (Shulman, 1986, p. 3).
Teaching represents a specific work culture (Feiman-Nemser & Floden, 1986) with meanings and viewpoints which teachers hold about their work and about themselves. Studies of teaching cultures examine what teachers know, how that knowledge is organized and how teachers use that knowledge in the process of teaching (Feiman-Nemser & Floden). Naturalistic inquiry, where research is based in the field and methods are designed to describe patterns of social organization from the viewpoints of the participants, is especially well suited to the purposes and focus of this research (Clark & Peterson, 1986; Erickson, 1986; Evertson & Green, 1986; Feiman-Nemser & Floden, 1986; Munby, 1984; Pajares, 1992; Schunk, 1991).

Proposed models of teaching and teacher thinking (see Clark & Peterson, 1986; Shavelson & Stern, 1981; Westerman, 1991) attempt to describe elements of teacher thought processes including teacher planning, teacher decision making and teacher theories and beliefs. Models suggest that teachers draw upon these elements at all stages in their teaching. While these models represent useful attempts to describe teaching, the research on which the models have been based is problematic. Although current models of teaching depict some interrelationship among teacher planning, theories and beliefs and decision making, most research on teacher thinking has been designed to study one of these aspects in isolation (Clark & Peterson, 1986; Pajares, 1992). Yet results from numerous studies suggest that teacher thinking is a holistic and integrated phenomenon and that there
is an interrelationship among beliefs, planning, decision making and classroom practice (Pajares).

At the preschool level, teacher thinking and decision making are related to the construction of the classroom environment (Hill, Yinger & Robbins, 1981; Morrow & Rand, 1991; Neuman & Roskos, 1990). In constructing a classroom literacy environment, teachers plan and make decisions about the physical arrangement, curriculum, learning activities, and materials present. The context of that environment plays a critical role in shaping young children's socialization into literacy as well as their literacy beliefs, behaviors and products (Fernie, 1988; Gump, 1989; Morrow & Rand, 1991; Puro & Bloome, 1987; Neuman & Roskos, 1993; Rasinski & DeFord, 1988; Stipek, Daniels, Galluzzo, & Milburn, 1992). This is especially true at the preschool level, which represents a critical stage where children are becoming socialized into school and into literacy. The teacher, as the significant adult in the preschool classroom, plays a pivotal role in the construction of that environment.

Findings from a pilot study (Madison, 1990) indicate that the construction of literacy environments occurs as a result of the organization of elements of teacher thinking such as planning, theories or beliefs, and not simply as a result of a single element operating in isolation. This suggests that the relationship between teacher thinking and knowledge and teacher actions and decisions is better characterized as a balancing and blending process with the teacher stirring the mix. Using
elements of the literacy environment as defined in the pilot, this study focused more specifically on the process of how preschool teachers draw upon elements of their thinking and knowledge as they plan and construct the classroom literacy environment.

Research on teacher thinking has been problematic because of the lack of appropriate methodologies and inadequate definitions of constructs being studied, including beliefs, knowledge and decisions. According to Pajares (1992), researchers have failed to agree on what is meant by belief or knowledge, or have used definitions that seem to be overlapping. An appropriate definition of teacher beliefs recognizes the relationship between beliefs, knowledge, planning and decision making. It also explores the relationship of these interrelated entities to specific teaching practices and contexts. Pajares suggests that more fruitful studies should examine teacher thinking and beliefs about something, some content or situational context. This kind of design can more effectively explore relationships between beliefs, knowledge, planning, decision making and practice.

Because of the implicit nature of teacher thinking, often information about beliefs, planning and decision making must be inferred from observed behavior or, alternatively, described by participants in their own words. Use of a single one of these sources for information about teacher thinking creates problems. First, observation or description alone are inadequate for validity purposes. Pajares (1992) argues that any study of
teacher thinking must arrive at conclusions based on a combination of: (a) what participants say, (b) what they intend, and (c) what they do. Little previous research has been designed with this in mind. Further, teachers' statements about their beliefs, or about any aspects of their thinking and practice, are actually a construction of an individual's view of reality and, of course, not the reality itself (Carter, 1993; Elbaz, 1991). This problem requires that research studies employ multiple data collection methods as a means of establishing credible conclusions and inferences about teacher thinking. Thus, appropriate designs for the study of teacher thinking should incorporate belief statements, plans or intentions, and decisions in relation to behaviors and practice within specific teaching contexts (Pajares).

Erickson (1986) noted the need for a greater focus on interpretive research designed to "discover specific ways in which local and nonlocal forms of social organization and culture relate to activities of specific persons in making choices and conducting social action together (p. 129). This perspective views each classroom as a unique system which nevertheless possesses characteristics which Erickson calls "concrete universals". Discovering these universals results from in-depth examination of the concrete organization of teaching by studying classrooms individually.

The early childhood years are a critical period of transition from the home to the school; it is precisely during
this transition that children are most "at risk," especially if there is no connection between home and school systems (Allen & Carr, 1989). This "risk" factor may arise out of the match, or perhaps mismatch, between the environment at home and the environment at school (Allen & Mason, 1989), or from differences in aspects of the classroom, including program type and instructional approach (Neuman & Roskos, 1993; Snow, et al, 1991; Stipek, et al, 1992). Understanding the quality of this match requires a clearer picture of what is happening in the classroom.

In a discussion of the relationship between teacher thinking and literacy practices in the classroom, Ruddell and Sperling (1988) identified the lack of "contextualized profiles" of teachers which clarify the connections between beliefs, planning, organization and decision making and their relationship to practice. Studies also must take into account what Pajares (1992) calls the "context-specific" nature of teacher thinking--i.e., its interrelation with specific aspects of the teaching context.

METHODOLOGICAL ISSUES

Using qualitative methods for data collection and analysis, the research was intended to generate knowledge of teacher thinking and decision making as social and cultural phenomena by: (a) studying the phenomena in the settings where they occur--i.e., classrooms; (b) by exploring other related contextual factors; and (c) by describing the framework within which the phenomena occur. Since preschool classrooms represent a
distinctive culture of teaching, the design emphasized how teachers themselves define their work in terms of their meanings and viewpoints as insiders (Feiman-Nemser & Floden, 1986). The plan for the design and methodology of this study also developed as a means of addressing methodological issues raised in previous research.

In the domain of teacher thought, the majority of the research has isolated aspects of teacher thinking (Clark & Peterson, 1986). Westerman's elaboration of models of teacher thinking and knowledge (1991) suggests that prior results have not adequately described the dynamic and holistic process which characterizes teacher thinking in relation to the organization of teaching (see also Elbaz, 1991; Lewis, 1990; Schommer, 1990). Research on teaching as well as on literacy development has not adequately employed the preschool classroom and teacher as important subjects for study; preschool teaching remains an unexplored context (Doyle, 1986; Fernie, 1988; Klein, 1988). Studies of teacher thinking have often been carried out with a small number of informants, in most cases, drawn from one school site only (as in Hill, et al, 1981). Strategies for data collection have sometimes included hypothetical situations or simulations which do not yield information about literacy or teacher thinking in real life classrooms. Some designs were founded on the use of a single method for data collection, which raises questions about the credibility of the data and, it follows, the analysis. Specific strategies such as observational
checklists, questionnaires, repertory grids and analysis of written plans, when used alone as they sometimes are, do not give the researcher information about the meaning of actions and events which teachers hold. Even the use of qualitative methods such as interviewing or in-depth observation presents the same kind of problem if the research design relies on a single strategy (Erickson, 1986; Evertson & Green, 1986; Lofland & Lofland, 1984).

METHODS AND DATA COLLECTION

This study employed a naturalistic design with qualitative methods used for data collection and analysis. Participants in the study were recruited from among certified teachers across a range of preschool classrooms and programs in a suburban public school system. Data were collected over a period of several months, and consisted of interviews with teachers and observations in classrooms. Data collection and preliminary analysis focused on four themes drawn from previous research, results of a pilot study and analytic questions: a) teacher beliefs about literacy, b) teacher planning and organization, c) classroom ecology related to literacy and d) outside factors. Results of this preliminary analysis led to the development of a secondary analytical focus. This focus involved the existence of a spectrum of literacy environments across the ten classrooms, with three characteristic clusters along portions of the spectrum.

Informants and Setting
Informants in the study included ten preschool teachers in the same suburban parish public school system. Teachers were recruited from a total pool of 14 preschool teachers parish wide. Teachers were selected based upon three criteria: (a) degree in education, (b) at least one year teaching experience in an early childhood classroom (kindergarten or preschool), and (c) willingness to participate in the study. Teachers were also selected to cover the range of communities and geography reflected across the parish system, and were drawn from two preschool programs operating in the parish school system. One program consists of half day tuition preschool classes located at elementary schools across the parish, open to students on a first-come, first-serve basis. The other program consists of state funded all day preschool classes, open only to children from families with an income of less than $15,000 annually.

Data Collection

Data were collected in three broad categories over a period of four months. First, observations were conducted which consisted of one full morning spent in each classroom. Data were recorded in the form of rough handwritten notes made during the observations, including a description of literacy related elements of the classroom ecology (defined as physical arrangement, curriculum, learning activities and materials related to literacy). Descriptions of relevant classroom interactions during observations were included in rough notes. Sketches of the physical arrangement of each classroom were
completed. Observations were audio taped to assure that the data log was as complete and accurate as possible (Werner & Schoepfle, 1987). Formal typewritten notes based on handwritten notes and audio tapes were transcribed following observations for later analysis.

After completing classroom observations, in-depth interviews were conducted with each teacher using a semi-structured interview guide. The interviews focused on several general themes related to the analytical questions (Evertson & Green, 1986; Lofland & Lofland, 1984; Spradley, 1980):

1. Background and biographical information about the teacher and class.
2. Teacher beliefs about literacy development in young children.
3. Elements of the classroom ecology related to literacy, including physical arrangement, curriculum, learning activities and materials.
4. Teacher planning and organization of the classroom and learning activities.
5. Outside factors which influenced teacher planning and organization.
6. Any specific questions generated from the observations. Interviews were audio taped and transcribed verbatim.

Data in the form of documents were also collected, including items such as copies of teacher plans, curriculum guides, charts and sketches of the classrooms. Also included in the data log
were methodological and analytical notes produced over the course of the study.

Data Analysis

The analysis was designed to search the data using constant comparative methods (Glaser & Strauss, 1967), generate hypotheses through induction and provide evidence, both disconfirming and confirming, for those assertions. The researcher selected specific events, comments or quotes from the notes, and connected them together to formulate an initial, particular description. These particulars formed the basic unit for reporting results, supplemented by narrative vignettes, quotes from observations and interviews, and summary reporting in the form of tables and figures. The evidence from the particulars was then organized into patterns which led to a more general interpretive framework illustrated by the particular instances (Erickson, 1986; Lincoln & Guba, 1985; Lofland & Lofland, 1984; Marshall & Rossman, 1989).

Data collected from observations and interviews were initially categorized using themes drawn from the research focus and analytical questions:

1. What beliefs do preschool teachers have about literacy development in young children?

2. How do preschool teachers plan and organize classroom literacy environments?

3. What is the ecology of the literacy environment in preschool classrooms? Specifically, how do the components of physical arrangement, curriculum, literacy activities and
materials shape the preschool classroom literacy environment?

4. What outside factors influence teacher planning and organization in the construction of the classroom literacy environment?

Information from observations and interviews was entered into a data base and coded by theme and teacher. Preliminary analysis of the data was derived from initial sorting of the information in the data base by thematic code. This preliminary analysis resulted in an initial description of categories and themes across all ten teachers and classrooms.

During completion of the coding and preliminary description of themes, patterns in the data related to teaching approaches and literacy environments began to emerge. These patterns suggested that literacy environments across the ten classrooms were characterized by a spectrum with representative clusters along the spectrum. Data analysis then proceeded through a second phase of sorting and categorization based upon these hypothesized patterns. This second analysis resulted in an in-depth description of the spectrum of literacy environments across the classrooms, with particular emphasis on the three representative clusters evident across the spectrum.

Techniques for increasing the credibility and trustworthiness of the analysis included regular and ongoing review of notes, member checks with participating teachers, peer reviews and peer debriefings. The issue of credibility in this study is of greater importance since the researcher is so
familiar with the setting (having been a preschool teacher in this same parish system). However, awareness of unconscious assumptions and the ability to tap insider knowledge were also advantageous to ensuring trustworthiness for purposes of the present study. Additional strategies for establishing validity included: prolonged period of engagement within the setting; use of multiple sites and multiple informants; multiple sources of data; ongoing member briefings with participants and regular peer review. An important assurance of credibility in the design of the study rests on the closeness of the researcher to the actual setting (Emerson, 1983).

THE SPECTRUM OF LITERACY ENVIRONMENTS

Preliminary analysis provided an initial description of teacher beliefs about literacy; teacher planning and organization; the classroom ecology, including physical arrangement, curriculum, literacy activities and materials; and outside factors which influence teachers. Further analysis revealed the existence of a spectrum of literacy environments across the ten classrooms, with characteristic clusters along portions of the spectrum. Emergent literacy environments are characterized by: a holistic and integrated approach to planning and organization, classroom ecologies richer in literacy materials, activities and centers; a child-centered focus; and teachers who are more actively involved in peer and professional relationships. Skills-based literacy environments are characterized by: a skills-driven approach to planning and
organization, classrooms with fewer literacy materials, activities and centers; a teacher-directed focus; and teachers with a personal orientation who are isolated from peer relationships. Eclectic classrooms represent a middle portion of the spectrum characterized by an approach which incorporates both themes and skills, and classroom ecologies which range between the skills-based and emergent classrooms with respect to literacy materials, activities and centers. Teachers in transitional stages of the spectrum are undergoing changes in their approaches to teaching and in their classrooms as they adjust to their first year in a new teaching context. These findings demonstrate that preschool literacy environments exist along a spectrum represented by some similarities. Nevertheless, characteristic differences exist across clusters along the spectrum which result in characteristically different preschool literacy environments.

**Skills-based Cluster**

Previous research has demonstrated differences in literacy instruction and traditions in early childhood and elementary classrooms (Bond & Dykstra, 1967; Stahl & Miller, 1989). Skills-based approaches which dominated early literacy instruction in past years continue to be used in many classrooms (Adams, 1990; Chall, 1967; Hagerty, Hiebert, & Owens, 1989; Rasinski & DeFord, 1988; Smith & Shepard, 1988, Stipek, et al, 1992). Findings in this study demonstrate that a cluster of teachers at one end of the spectrum can be characterized as constructing skills-based literacy environments.
Classrooms in the skills-based cluster contain fewer centers, fewer literacy materials and less accessibility and choice for children to engage in literacy experiences. Skills-based teaching is organized around letters and skills presented in some kind of pre-arranged sequence; thematic topics are sometimes woven into the letter or skill of the week. Skills and concepts are to be presented to the children; those who are ready will acquire the skill, and others will probably become ready in the future as a result of maturation. Children in this cluster spend a significant amount of time in large group, direct instruction as well as seated practice work. With fewer materials, less accessibility and different kinds of planned activities, the literacy environment constructed in these classrooms is one which is characterized by teacher direction, skill work, and little use of functional literacy materials or behaviors.

In the skills-based cluster, teachers believe that literacy learning begins with skills, especially letter skills. They believe that children need the discipline of direct instruction and seat work practice in order to become "ready" for kindergarten the next year. Activities in these classrooms are primarily teacher-directed as opposed to child-centered. Skills-based teachers describe their work as more isolated and less connected to peers and other professionals. They are more influenced by personal experiences than any other outside factors. Teaching in skills-based classrooms is characterized by
a greater emphasis on teacher direction, with greater teacher control of accessibility, materials, choice and time for literacy experiences. Teachers in this cluster did not report factors such as peer involvement or professional organizations as outside influences. Teachers in this cluster can be characterized as skills-oriented, teacher-directed, personally oriented and more isolated from peers. Curriculum and learning activities are organized around skills and make frequent use of ditto sheets and commercial materials, contrary to recommendations in program guides. Literacy activities are dominated by teacher-directed instruction or practice. There is little or no evidence of children's writing in the classroom. This cluster contains the lowest number of literacy materials across all areas of the classroom. Both books and writing implements are sparse and often inaccessible to children. The teacher's role in the construction of skills-based literacy environments is one of decision maker and director, as children play a lesser role in choosing and directing their own literacy experiences.

**Emergent Cluster**

In recent years, emergent approaches have dominated research in early literacy and are being used in more and more classrooms (Allen, 1988; Dyson, 1984, 1985; Hagerty, et al, 1989; McGee & Richgels, 1990; Morrow & Rand, 1991; Neuman & Roskos, 1988, 1993). A cluster of teachers at one end of the spectrum can be characterized as constructing emergent literacy environments. Teachers in the emergent cluster use a holistic and integrated
approach to literacy in their classrooms. They define literacy development as a natural process integrated across all aspects of children's experience. They use themes to plan and organize curriculum and learning activities. Teachers in emergent classrooms are influenced more by professional and peer interaction than any other cluster; they establish connections beyond their own personal experiences which they draw upon as they plan and organize. They place far less emphasis on skills instruction and preparing children for kindergarten. Emergent teachers function as facilitators who structure appropriate classroom environments and provide children with accessibility, choice and time to construct their own literacy experiences.

Classrooms in the emergent cluster contain the greatest number and variety of centers, the greatest number of literacy materials and greater accessibility and choice for children to engage in literacy experiences. All the teachers in this cluster report using whole language and thematic teaching to organize curriculum. Emergent teachers believe that literacy is a natural part of learning that is integrated with all aspects of children's experiences. They do not believe in skills-based literacy acquisition, nor do they feel that children need to be ready to learn reading and writing. Teachers construct literacy environments which provide richness in quantity of materials, choice and accessibility in use, and opportunities for interaction and exploration. In this cluster, teacher beliefs are more in tune with the philosophy and recommendations of the
program and teachers thus express less conflict about their beliefs and practice than do teachers in the skills-based cluster. Their beliefs and practices are more likely to be influenced by peer and professional relationships, and their planning and organization is more characterized by collaboration and connection. Emergent classrooms contain greater numbers and variety of centers and literacy materials. Emergent teachers view their role as facilitating and structuring opportunities for children to engage in literacy experiences. Literacy environments in emergent classrooms thus provide children with greater accessibility, variety, choice and self direction in constructing literacy experiences for themselves. Curriculum content and learning activities rely less on commercial materials and more on whole language and language experience activities.

Although teachers in this cluster teach what they believe, they are influenced by interactions with peers through support groups, collaboration with kindergarten teachers, professional journals, and inservice training. Emergent literacy environments are characterized by teachers who use integrated and thematic approaches, who believe that literacy is a holistic and natural process, and who are strongly influenced by professional connections and collaboration. The teacher's role in the construction of emergent literacy environments is one of facilitator and organizer of the opportunities whereby children are partners in that construction as they freely choose and direct their own literacy learning and experiences.
Eclectic Cluster

Previous research has demonstrated differences in literacy instruction and traditions in early childhood and elementary classrooms (Bond & Dykstra, 1967; Stahl & Miller, 1989). Over the last thirty years, a debate between skills-based and emergent approaches has been conducted in the research on early literacy and is also the center of debate about practice in preschool classrooms (Chall, 1967; Cunningham, 1992; McGee & Richgels, 1990; Morrow & Rand, 1991; Neuman & Roskos, 1988, 1993; Schickedanz, 1990; Stahl & Miller, 1989). Findings in this study demonstrate that a cluster of teachers in the middle of the spectrum can be characterized as constructing eclectic literacy environments.

Teachers in this cluster believe that literacy development is a natural and individualized process fostered by a variety of experiences in the classroom; they also believe that readiness skills are necessary before children move on to kindergarten. This duality of beliefs is reflected in the ways in which these teachers organize and plan. Curriculum and learning activities include both thematic teaching and letter skills, usually interwoven on a weekly basis. Children have opportunities for spontaneous literacy learning in center time, but teachers often lead small group activities in a teacher center. Large group time is spent in oral language or thematic activities instead of direct instruction.

Eclectic classrooms have more centers than skills-based
classrooms, although not as many as emergent classrooms; library and writing centers are present in both rooms. Although curriculum and learning activities are drawn somewhat from commercial activities, ditto sheets are rarely used. Besides letter and language activities, children also have the opportunity to engage in language experience and dictation activities. The number of literacy materials, including books and writing materials, also averages between the number of materials in skills-based and emergent classrooms. These materials are more accessible in eclectic rooms than in the skills-based cluster, but do not appear in as many centers as in emergent classrooms. Although teachers report that their planning and organization are influenced by a concern for readiness for kindergarten, they are also influenced by the new direction in the program philosophy and by the needs of children in the program.

Eclectic teachers are attempting to solve the conflict between opposing approaches and philosophies by providing a compromise which offers elements of both emergent and skills-based classrooms. Eclectic literacy environments provide a mix of elements found in both skills-based and emergent environments, with children having more free choice and selection than in skills-based rooms, but with teachers providing some direction in the form of teacher center activities. The role of construction in eclectic literacy environments appears to be a compromise with both teacher and child playing an important part.
Teachers in Transition

Two teachers along the spectrum do not fall into any of the three clusters. Both teachers and classrooms exhibit characteristics of the clusters between which they are situated. They are undergoing a period of transition in classroom planning and organization which has been generated by the confluence of several factors: first, both teachers are in their first year of teaching in this program. They are in new classrooms with new space arrangements, new materials and a new curriculum; one teacher is in her first year teaching preschool (her previous experience is all in kindergarten). Despite their training and experience, both teachers reported that their beliefs about literacy and about young children are changing. As a result, their planning and organization is also in a mutable state. They blend both thematic and skill elements in their teaching, and elements of both ends of the spectrum in their classroom ecology. While these teachers, too, teach what they believe, their planning and decision making reflects the uncertainty of their beliefs at the moment. They are still changing, revising and rearranging their classrooms and their planning and organization, searching for an organization in their thinking, organization and classroom that feels comfortable.

DISCUSSION

This analysis suggests that the construction and organization of preschool classrooms is not related to any one teaching approach (Hagerty, et al, 1989; Kinzer & Carrick, 1986;
Data in this study demonstrate that preschool literacy environments can more accurately be described as a spectrum with clusters of characteristic teaching approaches. Unlike previous models suggest, preschool literacy environments exist along a spectrum represented by some similarities. Nevertheless, characteristic differences exist across clusters along the spectrum which result in characteristically different preschool literacy environments.

The nature of preschool teaching can be described as a spectrum of patterns which teachers use to organize and construct classroom literacy environments. Teachers draw upon their beliefs as they plan and carry out these patterns for classroom literacy environments, including the physical arrangement, curriculum, learning activities and use of materials. The range of teachers and classrooms in the study illustrate the existence of many similarities across preschool classrooms, and similarities in the ways in which teachers plan, organize and construct those environments. This same range also illuminates the diversity of patterns which exist across the ten classrooms. The spectrum of beliefs, organizational patterns and differences in classroom environments provides strong evidence that teacher planning and organization is a process that is similar in all teachers and classrooms, but that is shaped by factors unique to individual teachers and classrooms. This combination of similar
processes and unique individual characteristics explains the spectrum of similar yet individualistic description of teacher planning and organization, classroom ecology and literacy environments provided by the data in this study.

The teacher's role in the construction of literacy environments at all portions of the spectrum is a dynamic and holistic process, as might be expected based upon other characterizations of teaching processes in previous research (Erickson, 1986; Westerman, 1991). Findings in this study are of particular importance because no study to date has examined teaching processes in preschool classrooms in such depth. The range of participating teachers and classrooms along with multiple data collection strategies utilizing both interviews and observations coupled with a design which integrates elements of teacher planning and construction and classroom ecology, has yielded a rich and complex picture of the culture of teaching (Feiman-Nemser & Floden, 1986) in preschool.

Findings also suggest that previous models of teacher thinking in relation to teaching are incomplete and perhaps oversimplified. In Clark and Peterson's model (1986), internal teaching processes involve parallel elements of theories and beliefs, planning, and interactive decision making. Findings from the present study, however, indicate that while these elements may all be present in teachers' thinking, their interrelationship is not at all parallel in nature. Teachers in this study reported that they teach what they believe; even
teachers whose beliefs are in transition make similar statements. This suggests that teacher theories and beliefs may be a driving force behind planning and decision making. Rather than a parallel relationship, a more accurate model of elements of teacher thinking might illustrate a hierarchical interrelation among beliefs, planning and decision making (see Pajares, 1992). Westerman's model (1991) of expert teachers' decision making provides a more complex description of factors involved in teacher decision making at preactive, interactive and postactive stages of teaching where the teacher's view of curriculum is the starting point from which other aspects of decision making flow. Findings of the present study contradict this by indicating that, at least for preschool teachers, decision making starts with their belief systems. Teachers' discussion of curriculum in their classroom demonstrate that these teachers make decisions about curriculum based upon their beliefs.

Findings confirm, however, that decision making in experienced preschool teachers is a dynamic and holistic process involving a number of factors. Further, the spectrum of literacy environments found in these classrooms supports the notion that a static model of processes can only hint at similarities and differences. Teachers plan and make decisions in a range of ways which must be viewed in relation to the both internal and external contexts (Pajares, 1992). Because of the nature of models, therefore, these findings suggest that no static model can truly depict the complex realities of teacher planning and
A comprehensive depiction of teacher thinking must reflect the fact that elements and processes of teacher thinking differ to some degree from teacher to teacher, even for teachers within the same cluster of the spectrum (Neyerson, 1992; Pajares, 1992; Tidwell & Steele, 1992). In terms of this study, similar elements of teacher thinking include beliefs, understanding of students, and curriculum, as found in the Westerman (1991) study. The relationship among these elements and the processes by which teachers blend elements as they move from planning and decision making to construction varies with individual teachers. Although all teachers, for example, stated that they teach what they believe, there is variety in the strength and nature of those beliefs. Teachers also vary in the relative importance they place on elements of decision making. Some teachers, for instance, place a greater emphasis on the needs of children; others may be strongly guided by their knowledge of practice; still others are directed by their experiences with their own children. Furthermore, evidence from the teachers in transition strongly suggests that elements and processes of teacher thinking differ within the same teacher across differing contexts. Changes in program philosophy, grade or age level, groups of
children (i.e., differences in classes from year to year), may create significant changes in how teachers plan and organize their work, and as a result, changes in the classroom environments which result.

Findings confirm that, similar to other teachers (Clark & Peterson, 1986), planning for preschool teachers is an implicit and explicit process. For experienced teachers dealing with new facets of the teaching context, planning and organizing becomes less routine and more subject to change during the first year in the new context. Contrary to previous research (Clark & Elmore, 1979; Clark & Yinger, 1979), teacher planning in this study is only influenced and guided by published materials to the extent that they are consonant with the teacher's beliefs and approach to organization. Findings also reinforce assertions of the pilot study (Madison, 1990) that planning at the preschool level is a complex process related to a variety of factors and that teachers adapt that process to changes in internal and external contexts. Results support the prior conclusion that teacher knowledge is linked to practice (Elbaz, Erickson, 1986; Westerman, 1991). However, the relationship between theory and practice may be more complex than previously suggested. Teachers in this study often possess knowledge which is not reflected in their practice, particularly if that knowledge does not conform to their beliefs or experience (Clandinin & Connelly, 1992; Elbaz, 1991; Nespor, 1987; Pajares, 1992). These findings also clarify mixed results of previous research on the relationship between beliefs and
practice. Contrary to other findings, practice for teachers in all clusters is not directly linked to their knowledge (see Roehler, Duffy, Herrmann, Conley & Johnson, 1988; Westerman, 1991). Beliefs, however, play an important role in guiding practice in all clusters.

Although results suggest that a range of internal and external factors influence teacher thinking and, by extension, preschool classrooms, the functioning of these factors is a complex process. No absolute relationship can be inferred between aspects of teacher background (i.e., years of experience or education) and teacher thinking. Teachers in the emergent cluster had the highest average number of years of teaching experience, and hold more master's degrees than teachers in any other cluster. Teachers in the eclectic cluster hold the most certifications in special education. Teachers in the skills-based cluster hold the fewest certifications in early childhood.

In keeping with Clark and Peterson's model (1986), teachers reported a number of factors which influenced their planning and organization. However, teachers repeatedly reported that, other factors notwithstanding, they teach what they believe. The influence of outside factors on preschool teachers does not seem to be as strong as that suggested by other research on teacher decision making (Duffy, 1977; Duffy & Anderson, 1984). These findings also indicate a lesser role for outside factors than was suggested by findings of the pilot study (Madison, 1990).

If, as previous research suggests, early school experiences
play a critical role in shaping literacy learning (Puro & Bloome, 1986; Rasinski & DeFord, 1988), then the range of literacy environments reflected across this spectrum can be expected to produce an equally diverse range of literacy learning in young children. The presence of a range of approaches across the ten classrooms reinforces earlier findings that instructional philosophy does make a difference in literacy environments in early education settings (Lindfors, 1984; Meyerson, 1992; Snow, et al., 1991; Stipek, et al., 1992; Tidwell & Steele, 1992).

Considering the findings of Rasinski and DeFord that elementary children's concepts of literacy vary based upon the context of instruction, it can be inferred that the concepts of literacy in these preschool programs can be related to differences in instructional philosophy. This is particularly important in light of other findings which suggest that early experiences create conceptions of literacy in young children that may be impossible to change (Puro & Bloome).

Findings in this study also confirm earlier conclusions that teachers have beliefs about literacy that guide their literacy planning and instruction (Brophy & Good, 1974; Ray, Lee & Stansell, 1986). There is strong evidence that teacher decision making with respect to literacy is based on beliefs; for these teachers, beliefs seem to play an even greater role than has been previously noted (DeFord, 1981; Ernest, 1989; Harste, Woodward & Burke, 1984; Roehler, et al., 1988). The strong relationship between beliefs and practice with respect to literacy reaffirms
similar findings by other researchers (Borko & Niles, 1982) and
contradicts results which show no such overt connection (Borko &
Caldwell, 1982; Duffy, 1982). Furthermore, teacher beliefs and
practice with respect to literacy are influenced less by outside
factors than has been reported in earlier research (Duffy, 1977;

Findings and conclusions from this study break important new
ground in understanding teacher planning and organization in the
construction of preschool literacy environments. Results go
beyond previous descriptions of those literacy environments
(Morrow & Rand, 1991; Neuman & Roskos, 1990, 1993) to illustrate
the spectrum of processes by which teachers plan, organize and
construct classroom literacy environments. Across the spectrum
there are similarities in aspects of the literacy environment,
although situational differences also can be found, as suggested
by previous studies (Rowe, 1987, 1989). The description of a
spectrum of literacy environments provide a complex and elaborate
metaphor for understanding teacher thinking, classroom ecology
and their relationship to literacy environments in preschool
classrooms.
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