EARLY CHILDHOOD EDUCATORS' BELIEFS AND PRACTICES ABOUT ASSESSMENT

DISSERTATION

Presented to the Graduate Council of the University of North Texas in Partial Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

Deborah Diffily, B. A., M. A.
Denton, Texas
May, 1994
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Standardized tests are being administered to young children in greater numbers in recent years than ever before. Many more important educational decisions about children are being based on the results of these tests. This practice continues to escalate despite early childhood professional organizations' calls for a ban of standardized testing for children eight years of age and younger. Many early childhood educators have become dissatisfied with multiple-choice testing as a measure of student learning and are increasingly using various forms of alternative assessment to replace the more traditional testing formats. Teachers seem to be caught in the middle of the controversy between standardized testing and alternative assessment.

This research examined what early childhood educators in one north Texas school district believe about assessment of young children and what assessment methods they report using in their classrooms, as well as factors which influence those beliefs and practices. The sample for this study was 84 teachers who taught prekindergarten through third grade. An eight-page questionnaire
provided quantitative data and interviews and the researcher's journal provided qualitative data.

The findings from this study indicated that early childhood educators in this study held generally negative views about standardized testing. Regarding alternative assessment, almost all were aware of terms associated with this type of assessment, but most expressed beliefs that were more closely aligned with alternative assessment that were their practices. For those teachers who were changing from traditional assessment to alternative assessment methods, there seemed to be predictable stages through which they moved. These stages appeared to be awareness, training, experimentation, personalization, and diversification. Teachers reported many factors that influenced their beliefs and practices. The three strongest factors affecting assessment beliefs and practices were teachers' knowledge about assessment methods, the atmosphere of the school in which they worked, and their beliefs about what educational practices were best for young children.
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CHAPTER I

INTRODUCTION

Background of the Question

The educational reform movement of the past decade has focused national attention on assessment in American schools. Calls for reforms to restructure schools and ensure increased accountability for educators at all levels have placed assessment at the forefront of the education agenda. With increasing frequency, standardized testing is being used to measure student progress and school, district, and state educational effectiveness. Many educators have become dissatisfied with traditional, multiple-choice testing as a measure of student learning and have recommended various forms of alternative assessment to replace the more traditional testing formats.

Since the 1970's, standardized testing of American students has increased dramatically. Proponents of standardized assessment view these tests as objective measures which can evaluate student achievement, judge teacher competence, and determine educational quality. Public schools in the United States administer more than 100 million standardized tests each year. This represents an average of more than two and one-half tests per student per year at a cost of over $500,000,000 annually (Holloway, 1991; Medina & Neill, 1990).

Not only are standardized tests being administered in greater numbers in recent years, many more educational decisions are being
based solely, or in large part, on the results of these tests. Standardized test scores often determine the grade placement for children as they enter elementary school and the ability to graduate from high school. In many schools, test scores are used for placement of students in remedial or accelerated programs, allocation of funds, and teacher and administrative salaries (Kamii, 1990; Medina & Neill, 1990; Wortham, 1990).

Even as standardized testing is increasing, educators across the nation are encouraging limited use of standardized testing (Wortham, 1990). Others are calling for a ban on this method of testing (FairTest, Summer 1992; NAEYC, 1988; SACUS, 1990). The multiple-choice format of standardized testing has been criticized for not being an accurate measure of children's learning (Kamii, 1990), for limiting the range of skills and knowledge taught in schools (Medina & Neill, 1990), and for lacking reliability and validity, particularly for young children (NAEYC, 1988; Shepard & Smith, 1986). Other educators question the impact of race, ethnicity, income, and gender on test results (Laosa, 1977; Medina & Neill, 1990; NAEYC, 1988). Still other educators criticize standardized testing for omitting developmental areas such as social competence, self-esteem, and creativity, thereby ignoring the importance of these developmental skills (Katz, 1985).

In an effort to equalize testing situations and broaden the range of skills and knowledge which can be assessed by teachers, many alternative assessment methods have been proposed and are being used by teachers. Alternative assessment is taking many forms: portfolios, performance-based tasks, journals, exhibits, investigations,
demonstrations, and written or oral responses (Herman, Aschbacher, & Winters, 1992). Since the late 1980's, professional journals have provided teachers with descriptions of various alternative assessment methods and with strategies for implementing these methods in the classroom.

Early childhood educators have been particularly vocal fighting the increased use of standardized testing. Three early childhood professional organizations have called for a ban of the routine, mass use of standardized intelligence, achievement, readiness, and developmental screening tests for children eight years old or younger (ACEI, 1991; NAEYC, 1988; SACUS, 1990). These organizations are the Association for Childhood Education International (ACEI), the National Association for the Education of Young Children (NAEYC), and the Southern Early Childhood Association (SECA), formerly the Southern Association for Children Under Six (SACUS). Observation-based assessment is strongly encouraged by all three organizations as the best method for documenting the progress of young children (Bredekamp, 1987; Bredekamp & Rosegrant, 1992; Grace & Shores, 1992).

While professional organizations are working to ban standardized testing, thousands of state agencies and school districts mandate group administration of multiple-choice tests. This polarization of opinion about assessment has created a confusing maze of mandates, regulations, and policies (Bredekamp & Shepard, 1989). Teachers are caught in the middle of this controversy. Many early childhood educators administer standardized tests as part of their state-, district-, or school-mandated responsibilities. Some believe in this testing process
and plan curriculum which will prepare their students to perform well on these tests. Others question the appropriateness of standardized testing, but are not aware of what alternatives are available. Still others are committed to authentic methods of assessment and are working to end standardized testing and rely on assessment methods they believe are developmentally appropriate.

What teachers believe about standardized testing and authentic assessment may affect their classroom decisions about assessing young children. Some research studies indicate that teachers' thinking and beliefs directly affect educational decisions they make (Isenberg, 1990). Studies which compared the beliefs and practices of teachers about retention (Smith & Shepard, 1988), developmentally appropriate practice (Charlesworth et al., 1993; Hatch & Freeman, 1988; Hitz & Wright, 1988; Stipek et al., 1992), and specific classroom practices in literacy instruction (Johnson, 1992; Richardson et al., 1991) have provided valuable information about how teachers' knowledge, thoughts, and beliefs affect their classroom practice. Several studies related to the beliefs and practices of teachers about standardized testing (Green & Stager, 1986; O'Donnell & Woolfolk, 1991; Urdan & Paris, 1993) indicated that generally teachers do not support standardized testing, but continue to prepare students and administer these tests. Beliefs about and uses of alternative assessment methods have typically been reported in case-study or anecdotal form (Lamme & Hysmith, 1991; Mills, 1989; Vavrus, 1990) rather than in empirical research studies. To date, little research has been conducted about teachers' beliefs and
practices about broad assessment issues, including both standardized and authentic assessment. Virtually no studies have examined the assessment beliefs and practices specifically of early childhood educators.

Definition of Terms

For the purpose of this study, the following definitions were applied:

Alternative Assessment - "alternatives to conventional, multiple-choice testing" (Herman, Aschbacher, & Winters, 1992, p. 2), often referred to as authentic assessment.

Anecdotal Record - factual, nonjudgmental observations of observed activities (Northwest Regional Educational Laboratory, 1991).

Assessment - "the process of observing, recording, and otherwise documenting the work children do and how they do it, as the basis for a variety of educational decisions that affect the child" (Bredekamp & Rosegrant, 1992, p. 10).

Authentic Assessment - performance based assessment methods which require students to draw on prior knowledge, recent learning, and appropriate skills to solve realistic problems (Herman, Aschbacher, & Winters, 1992).

Developmentally Appropriate Practice - learning environments and appropriate experiences planned by knowledgeable educators which are both age- and individually-appropriate (Bredekamp, 1987).

Early Childhood Educator - an adult who works in the role of teacher with young children, birth through age eight (Bredekamp, 1987).
Performance-Based Assessment - assessment method which calls for the student to perform an actual task, to do "something" (Herman, Aschbacher, & Winters, 1992).

Portfolio - a collection of a child's work which demonstrates the child's efforts, progress, and achievement over time, as well as documentation of teacher's observations of that child (Grace & Shores, 1992).

Standardized Tests - instruments designed by specialists in tests and measurement that measure specific characteristics or skills and are normed on large groups of children (Wortham, 1990).

Objectives of the Study

This research study examined what early childhood educators in one north Texas school district believe about assessment of young children and what assessment methods they report using in their classrooms.

Purposes of the Study

This study had three primary purposes. The first objective of this research was to identify the beliefs of early childhood educators about assessment. The second purpose of the study was to determine the types and frequency of specified assessment methods early childhood educators reported using in their classrooms. The third purpose was to investigate the relationships between teachers' beliefs about assessment and their classroom assessment practices.

Research Questions

This study utilized both quantitative and qualitative research methods to answer the five research questions:
1. What is the nature of early childhood educators stated beliefs and practices about assessment?
2. What are the relationships between early childhood educators' beliefs and practices?
3. What are the factors which influence early childhood educators' beliefs and practices?
4. What is the relationship between teacher educational preparation and beliefs and practices?
5. What are the differences between the beliefs and practices of prekindergarten, kindergarten, first, second, and third grade teachers?

Limitations

1. This study did not control for the context in which teachers completed the questionnaire.
2. This study did not control for the motivation or the honesty of teachers responding to the questionnaire or the interview questions.
3. This study did not control for the prior experiences participants had with standardized testing or with authentic assessment.

Significance of the Study

Assessment has always been a critical part of the educational process. With the pressures of the reform movement, assessment has taken on an increased role of importance. The types of assessment methods used in a classroom ultimately shape classroom practices. If standardized tests are administered in a school and high test scores are
valued, teachers will often focus on single, correct answers. If authentic assessment methods are used in a school and the thought processes of the child are valued, teachers will not be limited to a narrow curriculum which emphasizes memorizing correct facts.

Research (Isenberg, 1990) indicated that teacher beliefs affect the decisions they make in their classroom. This may or may not be true about assessment. In many cases, assessment methods are mandated and teacher beliefs may play a small role in the assessment methods they implement in their classrooms.

Identifying what early childhood educators say they believe about assessment and quantifying the types of assessment methods they use in their classroom will indicate whether beliefs and practices about assessment align or are in conflict. Studies of this nature exist for high school and upper elementary school teachers (Green & Stager, 1986; Haladyna, Nolen, & Haas, 1991; Nolen, Haladyna, & Haas, 1992; Tollefson, et al., 1985), but a beliefs and practices study regarding assessment does not exist for early childhood educators. This study will begin to identify the beliefs and practices of early childhood educators about assessment. The consistency or conflict between beliefs and practices of early childhood educators may have implications for teacher education programs and professional development inservice for teachers. This study will further increase our understanding of the relationship between teacher beliefs and practices.

Outline of the Study

The dissertation is presented in five major chapters. Chapter One includes an introduction which provides an overview for the need of this
research endeavor, the statement of the problem, the purpose of the study, pertinent research questions, limitations of the research, and the significance of the study. Chapter Two presents a literature review to provide an appropriate background for this study. Chapter Three includes the design and methods of the study. The findings are discussed in Chapter Four and the Chapter Five contains the implications, summary, conclusions, and future directions for research.
CHAPTER II

REVIEW OF LITERATURE

The following discussion of professional writings includes the history and current status of assessment issues, the theoretical basis for this study, developmentally appropriate practice, and the relationship between teachers' beliefs and their classroom practices.

Assessment

History of Assessment in Early Childhood Education

The study of child growth and development dates back to the eighteenth century when philosophers first began to view childhood as a distinctly different period of life. School of Infancy (Comenius, 1628), Some Thoughts Concerning Education (Locke, 1693), Emile (Rousseau, 1762), and Education of Man (Froebel, 1826) were among the first books which characterized children's personal and educational needs as different from older children and adults. Rousseau believed that "much too little attention had been paid to studying the child so that education could be adapted to his characteristic needs" (Weber, 1984, p. 27).

The study of children encouraged by Rousseau did not begin until the late nineteenth and early twentieth centuries. In the late nineteenth century, G. Stanley Hall began using the observational method of data collection in his studies of young children. He believed that the needs of children could be determined by a direct study of the child in naturalistic settings. Other studies of young children during this same time frame included observation of specific aspects of growth, careful
recording, and interpretation of data by an expert. In the 1920's, Arnold Gesell built on these observational data collection methods by adding one-way vision screens and cinematography. Between 1890 and 1950, hundreds of children had been studied and information disseminated to teachers and parents (Weber, 1984).

While standardized testing began around 1900, pencil-and-paper, multiple-choice tests were not used with young children until the 1960's. Prior to that time, tests for young children were developed for use by medical doctors and psychologists primarily for noneducational purposes. Researchers working with young children continued to use the observational methods of the Child Study Movement (Wortham, 1990).

**Entry of Standardized Testing into Early Childhood Classrooms**

The American view of education began changing during the early 1960's. The Russian launch of Sputnik I in 1957 caused Americans to question the quality of public schools and demand more stringent programs. Coincidentally, views on testing began to change during this same time period. Psychologists began experimenting with IQ testing with younger children (Morrow & Smith, 1990). Benjamin Bloom's work was influential in changing professional and popular opinions about intelligence and intelligence testing. In his book, *Stability and Change in Human Characteristics*, Bloom contended that IQ test scores at approximately age four accounted for half of the variance of adult IQ scores. Popularized, this theory became the basis for intervention programs for young children. Bloom's work was often interpreted by the media and the public to indicate that children learned half of everything they would ever learn by the age of four. Based on this information,
early intervention programs appeared to be the answer for many of the nation's social and educational problems (Zigler & Muenchow, 1992).

Head Start was one such intervention program. As a federally funded program, formal evaluation of the program's effectiveness was a requirement for its continued funding; however, there was not a consensus about how best to evaluate Head Start programs. Two educators involved in the early stages of Head Start called for development of new research instruments that would measure changes in attitude, cooperation, and behavior brought about by Head Start (Zigler & Muenchow, 1992). However, other researchers' opinions and the media attention for early research studies which claimed IQ gains in children who had attended Head Start programs led to the decision to use standardized tests as the measure of the success of Head Start. This decision brought standardized testing into early childhood classrooms as an accepted measure of the progress of young children.

Another connection between the federal government and early childhood classrooms reinforced the increasing use of standardized testing of young children. In 1975, the Education of the Handicapped Act, often referred to as PL 94-142, was approved by Congress. This law provided special services to young children who were placed in one or more of ten diagnostic categories: mental retardation, serious emotional disturbance, hearing impairments and deafness, visual impairments and blindness, orthopedic impairments, speech or language impairments, other health impairments, specific learning disabilities, autism, and traumatic brain injury. Standardized testing was the primary means of qualifying children for these federally-funded
services (Bredekamp & Rosegrant, 1992). Thus, more young children were taking standardized tests than before this law went into effect.

**Standardized Testing**

In the last decade, standardized testing has continued to increase dramatically. While federally-funded programs initiated the standardized testing of young children, other factors have contributed to the dramatic growth in the number of standardized tests administered to children under the age of eight. The reform movement of the 1980’s served as a catalyst for much of this testing. Frequently, the response to the public demand for increased accountability by teachers and schools has been to increase the numbers of tests and the frequency of administration (Medina & Neill, 1990; Perrone, 1981).

The standardized tests most often used with young children are readiness tests, developmental screenings, and achievement tests. A standardized test is defined by the National Association for the Education of Young Children as an instrument composed of empirically selected items that has definite instructions for use, adequate determined norms, and data on reliability and validity (NAEYC, 1988). Tests scores are often used to determine entry grade placement into elementary schools, to substantiate recommendations for grade level retention, and for inclusion into specialized programs, such as Chapter 1 classes, developmental programs, or transitional classes. While the results of standardized tests are being used to make more and more educational decisions about young children, many early childhood experts are concerned that these decisions are being made through inappropriate uses of standardized tests (Bredekamp & Shepard, 1989;
Charlesworth, 1989; Meisels, 1987, 1989; Neill & Medina, 1989). A controversy continues over whether the advantages of using standardized testing with young children is balanced by or is outweighed by the disadvantages of standardized testing.

Advantages of Standardized Testing

In Tests and Measurements in Early Childhood Education, Wortham (1990) describes four specific advantages of standardized tests. The uniformity in testing procedures and the reporting of test results in specific, interval numbers allows easy comparison of these test results against an established norm. Thus large groups of students can be tested and compared through the administration of standardized tests.

The first advantage described by Wortham was the uniformity in test administration. Specific testing procedures are written for all standardized tests and all persons administering these tests are instructed to follow testing protocols precisely. In this way, test designers try to ensure that all children taking the test receive exactly the same instructions and take the test in exactly the same situation.

The second advantage of standardized testing discussed by Wortham was that quantifiable scores are used to report test results. In standardized testing, raw scores, the number of correct answers in a given test, are translated into derived scores. Derived scores can be easily compared. One child's score can be compared with scores of other children taking the same test or against the standards established by the test designers.

The standard created by test designers, referred to as norm referencing, was the third advantage discussed by Wortham. Norm
referencing is a process by which the test is administered to large groups of children and test designers determine normal performance on this particular test for different age groups or grade levels. Typically test manuals provide tables of norms based on the scores of relevant groups of subjects.

The final advantage described by Wortham is the validity and reliability of standardized tests. Test designers write and revise test questions in order to achieve both validity and reliability for their test. Validity is the degree to which the test actually measures what it was designed to measure. Reliability is the "level of internal consistency or stability of the measuring device over time" (Borg & Gall, 1989, p. 257). To be reliable a standardized test must produce similar results when taken repeatedly.

Madaus (1991) listed additional advantages of standardized tests. He stated that standardized testing helps ensure a certain amount of homogeneity in educational standards and practice across the nation and acknowledged these tests are widely accepted by society at large.

Another advantage of standardized testing is related to the expense of testing. Popham (1987) contended "if properly conceived and implemented, measurement-driven-instruction currently constitutes the most cost-effective way of improving the quality of public education in the United States" (p. 679). While millions of dollars are being spent on standardized testing in American each year, this method of testing large groups of students is more cost-effective than many alternative assessment methods.
Proponents of this type of assessment believe that standardized testing is an objective mechanism which will ensure accountability of public schools. They believe improved test scores demonstrate improved student achievement, staff competence, and educational quality. Standardized exams are viewed as essential elements of the "School Reform Movement." (Medina & Neill, 1990).

Disadvantages of Standardized Testing

In her discussion of standardized tests, Wortham also discussed five major disadvantages: limitations of standardized tests, concerns about validity and reliability, difficulties in administering tests to young children, misapplication of test results, and the need for improvement in standardized tests (Wortham, 1990). Many educators believe that these concerns only touch the surface of the problems with standardized testing.

Early in the 1970's, educators began expressing concerns about the use of standardized testing in public schools. In 1972, the National Education Association proposed a national moratorium on all forms of standardized testing, including intelligence, achievement, and aptitude testing (NEA, 1972). Four years later, the Association for Childhood Education International and the National Association of Elementary School Principals (Perrone, 1976-78) officially questioned the usefulness and accuracy of standardized testing with young children. By the late 1980's, professional organizations were again calling for a ban of the routine, mass use of standardized intelligence, achievement, readiness, and developmental screening tests for children who were eight years old or younger (NAEYC, 1988; SACUS, 1990).
During the first few years of the 1990's, even more organizations began to question the use of standardized testing, specifically using single test scores as the basis for high stakes educational decisions. Among these organizations were the National Association of Elementary School Principals (FairTest, Fall, 1990), the American Federation of Teachers, the National School Boards Association, the Louisiana Association of Children under Six (FairTest, Winter, 1990-91), and the National Education Association which reiterated its opposition to standardized testing (FairTest, Summer 1992).

The negative response to standardized testing is not restricted to professional organizations. In several research studies, teachers were found to generally hold negative attitudes toward standardized testing. They believed that the money spent on standardized testing could best be spent in other ways and did not believe that test scores reflect what students learn. While they did not believe that standardized testing is good for education in general, they did take time away from regular classroom instruction to prepare students to take these tests (Green & Stager, 1986; Nolen et al., 1992; Haladyna et al., 1991; Urdan & Paris, 1993). Some studies indicated that teachers felt compelled to teach in ways that counter their beliefs because test scores were tied to state funding for their schools or to their own promotions. These teachers did feel pressure to raise test scores and were willing to practice teaching strategies intended to raise test scores despite their doubts that these strategies were useful in contexts outside the test-taking situation (Urdan & Paris, 1993).
Theoretical Basis for the Study

Piaget's and Vygotsky's theories of child development serve as the theoretical basis for this study. Both theorists believed that the thought processes of young children are distinctly different from those of older children and adults. Piaget believed young children constructed their own knowledge by constantly expanding and refining knowledge, with past experiences and the child's current stage of maturation as primary factors in this construction process (Thomas, 1992, pp. 276-277). Vygotsky believed that language was the primary tool by which children learned to think and that advanced modes of thinking were transmitted to children through the language that surrounded them (Thomas, 1992, p. 320). Both Piaget and Vygotsky believed that the knowledge of young children could not be measured through standardized testing; therefore, neither employed standardized testing in any of their research.

Piaget's experiences with standardized testing began early in his career. Shortly after completing his dissertation, Piaget worked with Alfred Binet, the French expert on intelligence measurement. From 1919 to 1921, while working on Binet's intelligence test, Piaget became more interested in the wrong answers of children taking standardized tests than in their correct answers. Piaget was interested in the thought processes that led children to select incorrect answers. This interest remained a central focus for Piaget's life-long research in determining how children come to know and the relationship between the knower and the known.

Rather than depend on testing as a measure of young children's development of thought, Piaget developed a different approach to
studying children. His method of nonstructured interviewing became known as the clinical method. Piaget did not use a standard set of questions with each child. He believed that children interpret questions in different ways; therefore, he tailored each interview to the responses of the child. After one or two central questions, Piaget created questions to fit the specific child being interviewed. With young children, Piaget typically used concrete objects that children could manipulate during his research. He often used lumps of clay, blocks, or different sizes of glass containers and posed questions about these objects. The interview questions were based on the child's manipulation of the objects and on their answers to his previous questions. Using the clinical method of research, Piaget could more deeply probe the child's understanding of the issue being researched than he could with a standardized instrument.

While Piaget did not write extensively about standardized testing, his beliefs about testing were clear. In Science of Education and the Psychology of the Child, Piaget (1970) discussed the problem with right versus wrong answers on standardized tests. He cautioned educators that standardized testing can not examine the thought process of the child as they choose particular answers. Piaget believed that the process of arriving at an answer was a much more important issue than the specific answer that the child selected from the choices provided. Piaget also warned educators about the potential damage from misuses of standardized testing.

Vygotsky also rejected standardized testing as his method of research with young children. He did not believe that matching a child's
response to a stimulus question would help him discover a child's ongoing thought processes. While he spoke well of Piaget's clinical method (Thomas, 1992), he chose instead a method of his own creation, the double-stimulation method. This method placed a child in the situation of solving problems with a collection of objects. In contrast to the simpler objects used by Piaget, Vygotsky chose materials that provided a more complex pattern of stimuli. He created a series of twenty-two blocks, now known as the Vygotsky blocks (Thomas, 1992), which provided the means to examine children's concept-formation. No two blocks were alike. They varied in size, color, and the nonsense words that appeared on the bottom of each block. Sorting these blocks by like characteristics presented a complex task for the child being tested. The child could not rely on previously developed concepts to solve new problems.

Vygotsky's stance on standardized testing was also clear. He did not believe in conventional testing. He thought this type of testing was all too often used for the placement of children in classroom settings. Vygotsky believed conventional testing might indicate the current level of a child's understanding of a particular concept, but he was more interested in what a child could accomplish under adult guidance or in collaboration with more capable peers. He referred to this assisted-capability as the zone of proximal development. Vygotsky claimed that no conventional test could indicate a child's true capabilities in this zone of proximal development (Crane, 1992).

The theories of Piaget and Vygotsky have provided the basis for current early childhood curriculum and assessment practices
(Bredekamp & Rosegrant, 1992). One assumption of this study was that teachers of young children who have studied early childhood theory would have beliefs about assessment issues that align more closely with the beliefs of Piaget and Vygotsky than teachers who have not had early childhood training. In teacher education programs for early childhood educators, Piagetian and Vygotskiian theories, including their beliefs about assessment of young children, are typically presented in multiple courses. This emphasis on Piaget and Vygotsky may not be present in other teacher education programs.

**Developmentally Appropriate Practice**

Piagetian and Vygotskiian theories provide a theoretical basis for much of current practice in early childhood education (Bredekamp and Rosegrant, 1992). In recent years, the concept of "developmentally appropriate practice" (DAP) has become the standard by which early childhood programs are judged. In DAP programs, young children's needs are met through both age-appropriate curricula and individually-appropriate activities. A 1987 NAEYC document, *Developmentally Appropriate Practice in Early Childhood Programs Serving Children from Birth to Age 8* (Bredekamp, 1987), defined developmentally appropriate practice, providing a framework under which early childhood educators could develop their own programs. In separate chapters organized by age group, DAP is described by dichotomous practices about different program components. For example, in discussing curriculum goals for four- and five-year old children, appropriate practice is defined by the following three practices:
Experiences are provided that meet children's needs and stimulate learning in all developmental areas - physical, social, emotional, and intellectual.

Each child is viewed as a unique person with an individual pattern and timing of growth and development. The curriculum and adults' interactions are responsive to individual differences in ability and interests. Different levels of ability, development, and learning styles are expected, accepted, and used to design appropriate activities.

Interactions and activities are designed to develop children's self-esteem and positive feelings toward learning (Bredekamp, 1987).

Inappropriate practice related to curriculum goals for four- and five-year-old children is defined by the following three practices which are graphically presented in the text opposite the appropriate strategy:

- Experiences are narrowly focused on the child's intellectual development without recognition that all areas of a child's development are interrelated.
- Children are evaluated only against a predetermined measure, such as a standardized group norm or adult standard of behavior. All are expected to perform the same tasks and achieve the same narrowly defined, easily measured skills.
Children's worth is measured by how well they conform to rigid expectations and perform on standardized tests (Bredekamp, 1987).

From these statements, methods of assessment of young children are an important part of developmentally appropriate practice. Evidenced by the negative references to standardized testing in the statements above, the 1987 DAP document took a strong stand against testing and for developmentally appropriate assessment of young children. Early childhood professional organizations are not alone in their concern about methods of assessment for young children. A 1992 NEA resolution supported this stand by calling for "the use of a variety of developmentally appropriate assessment techniques" (FairTest, Summer 1992, p. 2).

The importance NAEYC places on developmentally appropriate assessment is clear through the emphasis it is given in major documents. "Developmental evaluation of children" (Bredekamp, 1987, pp. 12-13) is one of the four major topics described in the guidelines for developmentally appropriate practice. Bredekamp cautioned that accurate testing requires that standardized instruments are both valid and reliable and that such tests for young children are extremely rare. Instead of standardized testing, observation of children's development and descriptive data are suggested as primary assessment vehicles for young children.

Developmentally Appropriate Assessment

Reaching Potentials: Appropriate Curriculum and Assessment for Young Children (Bredekamp & Rosegrant, 1992) was recently published
by NAEYC as an extension of the 1987 DAP document. Assessment received limited discussion in NAEYC's 1987 book about developmentally appropriate practice. Assessment issues are more fully discussed in Reaching Potentials. The authors suggested that authentic assessment should be used for all assessment outcomes for young children: evaluating the progress of the child, planning for instruction, reporting to parents and concerned stake-holders, identifying children who may be in need of special services, and evaluating the program (Bredekamp & Rosegrant, 1992).

While developmentally appropriate assessment can take many forms, all forms should meet the following criteria delineated in Reaching Potentials. To be considered developmentally appropriate, assessment of young children must be:

- continuous;
- directed to all developmental areas;
- sensitive to individual and cultural diversity;
- completely integrated with curriculum and instruction;
- based on a defensible theory of child development and learning;
- collaborative between teachers and parents;
- helpful to teachers in their planning to meet the needs of children and the goals of the program; and
Authentic Assessment

The call for developmentally appropriate assessment for young children has occurred concurrently with a broader concern about assessment methods for all students. A growing number of individual teachers and entire school districts are struggling to develop authentic assessment methods that meet their needs. In some cases, entire states are recognizing the need for and beginning to experiment with alternative assessment methods. The findings of the 1990 California Education Summit summarized the beliefs of many educators:

All multiple-choice tests should be eliminated. (They) do not support the kind of teaching and learning that the state and national curriculum reform movement call for. An assessment system which measures student achievement on performance-based measures is essential for driving the needed reform ... (FairTest, Winter, 1990, p. 3).

Vermont is the only state attempting to developing authentic assessment methods for grades kindergarten through twelfth. The choice of alternative assessment methods for Vermont is portfolios. A committee of teachers developed model portfolios and a plan to implement portfolio assessment in stages (Vavrus, 1990). In another state, the Arizona Education Department cut standardized testing in grades two through twelve by two-thirds and is working toward performance-based assessment to supplement the reduced standardized testing (FairTest, Fall, 1989).
Some state-wide assessment reforms include only students in the early grades. North Carolina approved alternative assessments for first and second grades to replace standardized testing. The new assessments are based on teacher observations of children while the students are involved in communications and math performances (FairTest, Spring, 1989). A New York coalition of groups interested in testing issues is working toward banning all standardized testing in grades pre-kindergarten through second and replacing these tests with developmentally appropriate assessments (FairTest, Spring, 1990). Kentucky plans to develop new assessment methods which are more complementary to its other educational reforms (Franklin County Board of Education, 1991). Missouri is working toward more alternative assessment for students between three and eight years old. In a project called the Formative Assessment Program, direct observation and a variety of methods for documenting observations form the basis of evaluating the progress of young children (FairTest, Fall, 1990).

Many authentic, or developmentally appropriate, assessment strategies are currently being investigated by early childhood researchers and being implemented by early childhood teachers. Hills (1992) described several of these strategies: kidwatching, keeping track, documenting, naturalistic assessment, and performance assessment.

**Kidwatching**

The term, kidwatching, was coined by Yetta Goodman to describe "learning about children by watching how they learn" (Goodman, 1985, p. 9). This observation method is much like the methodology of Child Study
Movement researchers and has been rekindled by the whole language movement of the 1970's and 1980's. The role of the teacher is critical in this method of authentic assessment. Kidwatching puts teachers back in the position of being experts on the children under their care.

**Keeping Track**

Again, the teacher's role is very important in this method of authentic assessment which is an approach to assessment in early literacy. The teacher collects descriptive data on children in the form of literacy interviews, reading tapes, and teacher observations, and then summarizes the information from notes and other forms of written comments, inventories, and analyses of oral reading tapes. Finally, the teacher interprets the data and quantifies it through class summaries, statistics, and graphs which satisfy administrative and public needs for accountability (Engel, 1990).

**Documenting**

This authentic assessment method is simply the observation and collecting evidence of children's learning (Chittenden & Courtney, 1989). Observational forms prepared in advance of planned observations help focus teachers' attention on specific child behaviors. This method of assessment is generally associated with documenting emergent literacy and conventional reading behaviors.

**Naturalistic Assessment**

Naturalistic assessment is a term used to describe assessing children's actual performance in a real-life context (Wood, 1988). As in the two previous examples of authentic assessment, naturalistic assessment was first proposed for use in evaluating literacy behaviors.
of young children. Teachers were encouraged to look for particular reading-related behaviors as children were working in a variety of school contexts.

Performance Assessment

Performance assessment uses specific tasks that simulate real-life problems or challenges and assesses how children carry out those tasks (Brandt, 1992; Meyer, 1992). This type of authentic assessment is based on Grant Wiggins' work in which students used competent adult models, determined the features of the model which should be present in their own work, then created their own product using criteria of the adult model to judge their own work.

Many of the authentic assessment methods Hill described have their bases in the new perspectives on early childhood literacy development. The reading readiness model dominated reading instruction for young children from the 1900's through the 1970's. Under this model, before children could learn to read they had to master a series of hierarchical skills. These isolated skills were easily measured by readiness tests and achievement tests, both constructed in the form of standardized tests. The paradigm shift regarding how young children learn to read led to major changes in early literacy instruction. Because research showed that literacy development began very early in life, early childhood teachers began trying to determine what knowledge about literacy children brought to the classroom and designed literacy experiences that built on the children's prior knowledge, instead of teaching preestablished hierarchical skills. Literacy experiences included a print rich environment, shared book reading, extension
activities for stories, and emergent writing experiences. Because classroom practices no longer matched the formal assessment of readiness and achievement testing (Morrow & Smith, 1990), many alternative methods of assessment were developed by those studying emergent literacy. These methods, based on documentation of teachers' observations, often appear in literature about developmentally appropriate assessment (Hill, 1992).

**Portfolio Assessment**

Another form of authentic assessment attracting the attention of early childhood educators is portfolio assessment (Grace & Shores, 1992). Portfolio assessment has received more attention than any single other method of authentic assessment (Adams & Hamm, 1992; Brandt, 1987/1988; Brown, 1989; Camp, 1990; Flood & Lapp, 1989; Grace & Shores, 1992; Jongsma, 1989; Mills, 1989; Puckett & Black, 1994; Tierney, et al., 1991; Vavrus, 1990). Portfolio assessment uses a variety of methods to document teacher observations and interviews with children, as well as systematic collections of work samples from children. Because observations are documented and representational pieces of work are placed in student portfolios throughout the school year, portfolio assessment is an ongoing evaluation process. Portfolios offer rich, broad information about each student across developmental domains and demonstrate the progress of individual children. A child's portfolio can include checklists, rating scales, anecdotal records, interviews, student work, audio tapes and transcriptions, and video tapes (Grace & Shores, 1992; Puckett & Black, 1994).
Each of the methods of assessing the progress and development of young children discussed above goes much further than standardized testing in helping educators monitor student progress, report that progress to families, and evaluate programs (Bredekamp & Rosegrant, 1992).

Early childhood and literacy-related professional organizations may have begun discussing authentic assessment methods earlier than others, but currently many organizations are encouraging alternatives to conventional testing. The National Council of Teachers of Mathematics presented fourteen evaluation standards in their publication, Curriculum and Evaluation Standards for School Mathematics (1989). These standards proposed that assessment be integral to instruction and that multiple means of assessment methods be used, including written, oral, and demonstration formats. The National Center for Improving Science Education is currently working to establish standards in science and to establish a systematic approach to improving science curriculum and implementing assessment methods which are more authentic (O'Neil, 1992a). The New Standards Project is piloting performance-based tasks designed to assess students' abilities in mathematics and language arts (O'Neil, 1992b).

Teachers' Beliefs and Practices

Some assessment decisions are mandated by decision-makers outside the classroom, but many assessment issues are made by classroom teachers. Teachers' decisions and classroom practices are based on many factors. Students' individual needs, parental concerns and pressure, and key issues in contemporary society are among the factors that influence teacher decisions. In some cases, teachers do not
have the opportunity to make their own decisions. State and district mandates often restrict many educational decisions. Standardized testing and grade level minimum standards are often mandated and teachers have no choice but to administer the tests and cover the prescribed material. At other levels, district objectives and school-wide goals may provide a specific focus for classroom activities. Teachers may or may not agree with that focus, but must follow it nonetheless. In other situations, teachers are in the position to make classroom decisions. Many of these decisions may be based on factors that are personally relevant to the individual teacher. Previous experiences with children and with particular instructional strategies may influence classroom practices. While various factors influence teacher decisions and classroom practices, of primary importance to this study are the influence of teachers' knowledge, their thinking processes, and their belief systems on their classroom practices.

Knowledge

A dictionary definition of the term knowledge is:

the fact or condition of possessing within mental grasp through instruction, study, research, or experience, one or more truths, facts, principles, or other objects of perception (Gove, 1986, p. 1252).

This definition implied that knowledge is specific information that is learned. Charlesworth et al. (1993) discussed this type of knowing as explicit theories and beliefs. These researchers stated that explicit beliefs, or knowledge, are learned in college courses and from colleagues, educational books, and professional journals. In reporting
another beliefs and practices research study, Smith and Shepard (1988) indicated that knowledge was distinct from beliefs in that knowledge was based on conclusive facts and truth. In an analysis of beliefs, Price (1969) held that "believing that" is inferior to "knowing that"; however, all these researchers agreed that knowledge influences beliefs.

Ernest (1989) also believed that knowledge is the result of formal learning strategies such as books and coursework. Ernest discussed "the importance accorded to the teacher's practical knowledge ... both pedagogical and curricular knowledge" (1989, p. 13). He delineated different types of knowledge as content area knowledge, knowledge of related subject matter, pedagogical and curriculum knowledge, organizational and managerial knowledge and skill, knowledge of the context of teaching, and knowledge of education, including concepts, theories, and empirical results acquired from professional literature. Ernest stated:

The teacher's knowledge ... will underpin the teacher's explanations, demonstrations, diagnosis of misconceptions, acceptance of children's own methods, curriculum decisions (such as emphasizing central concepts), and so on (pp. 16-17).

Spodek (1988) maintained that knowledge is one foundational element of professional practice. Spodek quoted Elbaz (1983) to divide professional knowledge into five content areas: curriculum, subject matter, instruction, milieu, and self. While Elbaz came to this division of knowledge through studying secondary level teachers, Spodek claimed these areas are also important to early childhood educators, that only
through awareness of all the component areas of knowledge are teachers able to "orchestrate all the elements in an educational setting to facilitate learning in children" (Spodek, 1988, p. 170). Shulman (1986) cautioned researchers involved in examining teacher cognition to investigate the role of subject matter knowledge as it is related to decision making. Shulman believed that this factor of knowledge is missing among the recent research studies on teachers' beliefs and practices.

Teachers' decisions about how best to assess student progress are affected by the factor of knowledge as described by Ernest and Spodek. Yet teachers may have very similar knowledge about their area of expertise and make very different decisions about classroom practices (Ernest, 1989).

Thinking

Another factor in decisions teachers make about practice is their own thinking. Clark and Yinger maintained that "what teachers do is affected by what they think" (1979, p. 231). Clark and Peterson substantiated this statement by indicating that practice is "substantially influenced and even determined by teachers' underlying thinking" (1986, p. 255).

Initial research in teachers' thought processes related to how they gathered, organized, and evaluated information related to their practice. Clark and Yinger (1979) described studies that examined teachers' thinking as they planned for their classes and thinking as they made judgements about a range of educational issues. During the 1980's, the definition of teacher thinking was expanded to include reflection. While
definitions of reflective practice differ (Grimmett, et al., 1990, p. 20), they typically described the process of teachers thinking about what they do in relation to what they believe. Some believed the process of reflection is the pursuit of meaning (Grimmett, et al., 1990, p. 20). Others described reflective practice as the thinking "process that leads to thoughtful, mediated action" (Grimmett, et al, 1990, p. 23). Still others defined reflection as metacognition, thinking about thinking (Pugach & Johnson, 1990, p. 188).

Virtually all views of this new focus on teacher thinking, that of reflection, were based on the work of Schon (1983). Schon described two different ways of thinking. He labelled one type of thinking as knowledge-in-action, thought that is not totally conscious, but instead, relies on past experiences interacting with the current situation to form a decision. He also discussed a second type of thought which he labelled reflection-in-action. Schon defined this type of thinking as consciously interacting with a problematic situation. Pugach and Johnson summarized most researchers thoughts about this second manner of thinking by stating, "Through reflection, teachers might develop new patterns of thinking with which to approach the complex environment of teaching as a whole (1990, p. 186).

**Beliefs**

"Several studies conducted ... suggest that teachers' beliefs affect their instructional decisions," stated Borko et al. (1989, p. 141). Nespor (1987) agreed with the importance of beliefs on decision making and suggested that beliefs have a stronger affective and evaluative component than knowledge.
At the practical level, few people would argue that the beliefs a teacher holds affect the decisions they make regarding classroom practices; however, there are numerous definitions of teacher beliefs. Dewey described beliefs as "something beyond itself by which its value is tested ... It covers all the matters of which we have no sure knowledge" (1933, p. 6). Abelson (1979) defined beliefs as the manipulation of knowledge for a particular purpose. Clark called teachers' beliefs "implicit theories (which) tend to be eclectic aggregations of cause-effect propositions from many sources, rules of thumb, generalizations drawn from personal experiences, values, biases, and prejudices" (1988, p. 5).

While the relationships among the factors that influence teachers' decision making have not been clearly established, it appears that beliefs encompass both knowledge and thinking and can serve as the best indicator of decisions that individuals make (Dewey, 1933; Nespor, 1987; Pintrich, 1990). Many researchers have contended that the complex relationships among teachers' beliefs in many areas and their instructional decisions deserve further and more extensive study. Nespor contended,

"in spite of arguments that people's 'beliefs' are important influences on the ways they conceptualize tasks and learn from experience . . . little attention has been accorded to the structure and functions of teachers' beliefs . . ." (1987, p. 317).
Since Nespor's statement in 1987, several research studies have examined teacher beliefs about different educational issues and their practices related to that issue.

**Studies Related to Teachers' Beliefs and Practices**

Although the relationship between what teachers believe and what they actually do in classrooms appears logical, limited empirical research related to beliefs and practices has been conducted. Some studies indicated consistency between beliefs and practices (Charlesworth et al., 1993; Johnson, 1992; Lehman, Allen, & Freeman, 1990; Stipek et al., 1992), while other studies have produced opposing or inconclusive results (Bryant, Clifford, & Peisner, 1991; Hatch & Freeman, 1988; Hitz & Wright, 1988; Rusher, McGrevin, & Lambiotte, 1992; Smith & Shepard, 1988; Verma & Peters, 1975).

Stipek, Daniels, Galluzzo, and Milburn (1992) conducted detailed observations of instructional practices in 62 preschool and kindergarten programs. Teachers also completed a questionnaire and were interviewed by the researchers to determine the teachers' beliefs. The study found that teachers' beliefs about appropriate education for young children were associated with the kind of program in which they taught. The strongest relationship between beliefs and practices was with the teachers who held the more teacher-directed, academic beliefs.

These findings are supported by two beliefs and practices studies conducted by Charlesworth and research associates. In their first study, a teacher questionnaire was developed to determine the degree to which kindergarten teachers valued particular classroom practices that are considered to be developmentally appropriate or developmentally
inappropriate (Charlesworth et al., 1991; 1993). The researchers also developed an observational checklist for rating the degree of appropriate and inappropriate practices in classrooms. This study indicated the first instrument was valid in determining teacher beliefs about developmentally appropriate/inappropriate practice and the second instrument was valid in determining appropriate/ inappropriate classroom practices. The researchers found a moderate, statistically significant positive correlation between beliefs and practices. The strongest correlation was between inappropriate beliefs and inappropriate practice.

After revising the questionnaire, the researchers sought a larger sample of kindergarten teachers to study (Charlesworth, et al., 1993). In this second study, they hoped to provide further data about the validity of the questionnaire and additional support for the relationship between beliefs and practices found in the 1991 study. Both research goals were accomplished. As in the earlier study, teachers did use instruction methods that were, at least moderately, related to their self-reported beliefs. This was especially true for those teachers holding more academic or developmentally inappropriate beliefs. In both studies, teachers professing developmentally appropriate beliefs held more appropriate beliefs than they actually provided developmentally appropriate classroom activities for their students.

The relationship between beliefs and practices has also been investigated in other areas of education, especially those areas related to literacy. Using a questionnaire format for research, Lehman and his associates (1990) found congruence between teacher perceptions and
teacher practice regarding literature-based reading instruction. Responses about beliefs could be used to predict more than half of the practices listed on the survey. Teachers' self-reported beliefs significantly related to the time allotted in class for self-selected reading, the role of the basal reader, primary resources for planning curriculum, the selection of book extensions, types of material used, and assessment methods.

Congruence between beliefs and practices was also found in another literacy-related research study. A nineteen-item interview schedule was used by Lipa and Harlin (1990) to determine teachers' beliefs about process writing and their instructional decisions for teaching writing. More than sixty teachers participated in this study which found that teachers' beliefs are reflected in their classroom instructional decisions.

Putnam (1983) confirmed the findings of Lipa and Harlin's study by spending 169 hours observing in six inner-city kindergarten classes to determine the relationship between the theoretical orientation of teachers and actual classroom practice. Three teachers involved in the study held beliefs consistent with a bottom-up view of reading and three believed in a top-down view of reading. The first three teachers used teacher-led instruction and workbooks, while the second three used a variety of instructional activities which gave students greater control and choice. All six teachers used instructional approaches consistent with their beliefs.

Another study also confirmed the congruence of teacher beliefs and practices. In a study of thirty English-as-a-second-language (ESL)
teachers conducted to determine the relationship between their beliefs about literacy instruction for non-native speakers of English and their classroom practices, beliefs and practices were in alignment. In this study, the majority of participant teachers had clearly defined beliefs which reflected three different approaches to teaching ESL. One teacher from each approach was observed in the classroom and transcriptions of these observations revealed instruction that was consistent with each teacher's belief system (Johnson, 1992).

As previously stated, not all research studies about beliefs and practices have shown a consistency between the two. In one observational study regarding the relationship between child care providers' theories and practice, little correspondence between self-reported beliefs and actual classroom practices was found (Verma & Peters, 1975).

A much more recent study also finds inconsistency between beliefs and practices. In a study examining the relationship between principals' and teachers' beliefs and practices regarding developmentally appropriate practice, Bryant, Clifford, and Peisner (1991) found that beliefs and practices did not match for their study participants. Most of the 103 teachers and principals who supervised these teachers either knew about or believed in developmentally appropriate practices. On a scale of 1 to 5 (1= less appropriate, 5= most appropriate), the mean score of teachers was 4.13 and the mean score of principals was 4.05. Despite the high scores regarding developmentally appropriateness, less than 20% of the classrooms met or exceeded developmentally appropriate criterion when observed by the researchers.
These findings are supported by a statewide survey conducted by the Oregon Department of Education. All principals with kindergartens in their schools, all kindergarten teachers, and 315 randomly selected first-grade teachers completed questionnaires. This study found that kindergarten teachers were using a more academic approach to their curriculum than they believed they should. Survey respondents believed that much of the discrepancy between beliefs and practices was brought about by perceived pressure from administrators and parents to implement more academic instruction (Hitz & Wright, 1988).

The inconsistency between developmentally appropriate beliefs and more traditional practices is also found in a qualitative study conducted in Ohio. In this study, classroom practice in kindergarten classes was found to be academically oriented and skills based. The curriculum appeared to be designed to prepare children for first grade. Despite the academic focus of class activities, a full two-thirds of the teachers involved in the study held beliefs that did not match the behavioristic orientation of their classroom practices (Hatch & Freeman, 1988).

Rusher, McGrevin, and Lambiotte (1992) found similar results in a survey of 500 kindergarten teachers and 167 elementary school principals in the state of Texas. Data from the questionnaires indicated that the teachers disagreed with an emphasis on academics and strongly agreed with child-centered practices. The principals held similar beliefs, although less strongly. Although this study did not attempt to relate beliefs to practices, one interesting finding related to teachers' beliefs about how their opinion influenced district policy regarding
young children. On a five-point scale, teachers mean answer to this question was only 2.65. Teachers did not think that their beliefs about young children influenced district policy for early childhood education.

On a slightly different topic, Smith and Shepard (1988) conducted a qualitative study of teachers' beliefs and practices, finding little similarities in teachers' beliefs about kindergarten readiness and retention and their actual practices in these areas. In this study, the researchers found that teachers' beliefs were internally consistent and often related to the beliefs of others in the same school environment. They found that elements of the organization of the schools in which teachers worked accounted for much of their beliefs and practices. Variables such as training or experience did not account for beliefs about readiness and retention but were often affected by the educational and social context of the teachers.

**Studies Related to Teachers' Beliefs about Assessment**

Most studies investigating beliefs about assessment have focused on teachers' beliefs about standardized testing. Urdan and Paris constructed a 110-item questionnaire and surveyed more than 150 teachers who taught grades kindergarten through eighth. The sample was somewhat skewed toward the lower grades. The study findings indicated that teachers placed little faith in the accuracy or validity of standardized tests and questioned using test scores to make funding or programming decisions. Only 3% believed that standardized tests are generally good. Less than 10% felt that the tests reflect what students learn in school. The teachers who worked with lower-achieving students had many more negative responses to testing than did teachers.
who worked with higher-achieving students. Teachers who taught non-white students had similar responses. Haladyna, Nolen and Haas (1991) and Nolen, Haladyna, and Haas (1992) surveyed teachers and administrators with similar findings.

The Tollefson, Tracy, Kaiser, Chen, and Kleinsasser (1985) study also found negative opinions about standardized testing among teachers. They surveyed teachers' attitudes toward competency, admission, and intelligence tests, all standardized tests, and found that most teachers held generally negative attitudes about testing. They did find that attitudes toward this type of testing became more positive as the grade level taught increased, with secondary teachers being more positive than elementary teachers. They also found that the more training teachers received in testing and measurement the more positive their attitudes toward testing were.

Green and Stager (1986) expanded their study to include other forms of testing as well as standardized tests but also wrote of similar findings. They surveyed more than 600 teachers, including elementary and secondary teachers, finding a generally negative attitude about standardized testing. Like Tollefson and associates (1985), Green and Stager also found that a greater knowledge base about testing was associated with more positive attitudes about tests and testing and that positive attitudes related to grade level taught. They found that teachers who thought that tests were a good assessment of their personal knowledge had more favorable attitudes toward testing in general, especially classroom testing.
The consensus of researchers who have studied teachers' beliefs about standardized testing was well described by Haladyna et al. (1991): Teachers report a consistent lack of belief in these test results and in particular with how the results are used. Although teachers and administrators participate in efforts to raise test scores, as one elementary school principal commented, 'we suffer a collective guilt in the process.' (p. 6).

Summary

Research studies have been constructed to determine teachers' beliefs about standardized testing. Other studies have been conducted to determine the beliefs and practices of teachers about developmentally appropriate practice and specific classroom practices. However, little research exists which examines all types of assessment methods and examines the relationship of beliefs about assessment to assessment methods actually used by teachers. Virtually none were conducted with an exclusively early childhood educator population. More research is needed which focuses on teachers' beliefs as related to classroom practice (Isenberg, 1990) and a study of early childhood educators beliefs and practices about assessment could add to the body of knowledge related to how teacher beliefs affect classroom decisions.
CHAPTER III

METHODOLOGY

The purpose of this study was to examine the beliefs of teachers in one school district who taught prekindergarten through third grade, about assessment of young children and assessment methods they actually use in their classrooms. This study was based on the supposition that teachers with early childhood training would hold beliefs that are more closely associated with the authentic assessment paradigm than teachers who had not had early childhood training. Therefore, beliefs about and practices of assessment methods by early childhood certified teachers were compared to beliefs held and assessment methods used by teachers who are teaching children younger than nine years old but are not certified in early childhood. A similar comparison was made by grade level.

Site

This study was conducted in seven elementary schools in a single independent school district in north Texas. Permission to administer a beliefs-and-practices questionnaire and interview selected teachers was requested from the Research and Development Department of that district in May, 1993 (See Appendix A). The director of Research and Development for that district presented the research proposal to the ten elementary school principals for site-based decisions in June, 1993.
Five principals approved the proposal in June. Two additional principals approved the proposal in August.

Subjects

The subjects involved in this study were early childhood educators who teach prekindergarten, kindergarten, first grade, second grade, or third grade classes in one of seven different elementary schools. Subjects in this study were referred to by the grade level taught and a pseudonym for the school name. These pseudonyms were determined randomly by the researcher: Kellerman, Porter, McIntyre, Gunninton, Berryman, Georgetown, and Parkville.

The total number of subjects was 143. Eighty-four teachers returned the questionnaire. This represents a 59% response rate. Of the 84 teachers who returned questionnaires, 10 taught prekindergarten, 13 taught kindergarten, 21 taught first grade, 7 taught first/second grade multi-age classes, 14 taught second grade, 16 taught third grade, and 3 taught third/fourth grade multi-age classes.

Of the 84 respondents, 4 were male; 80 female. One respondent was African-American, ten were Hispanic, 72 were Caucasian, and one listed ethnicity as "other." Respondents ranged in age from 22 to 62 and the average age of the respondents was 38. Reporting in approximate quartiles, 26% of the teachers had 1-5 years teaching experience, 26% had 6-8 years experience, 23% had 9-18 years experience, and 25% had more than 18 years teaching experience.

Of the 59 teachers who did not return the questionnaire, 20 were contacted personally. Fourteen teachers said they did not have time to complete the questionnaire or that they had too many other teaching-
related priorities. Three said that this was their first year of teaching and they did not feel comfortable in responding to questions about their assessment beliefs and practices. One teacher said that she had already mailed the questionnaire and two indicated they would complete the forms and return them that week. None of the last three questionnaires were received by the researcher.

Methods of Data Collection

Data collection took place in two stages. The first method of data collection was a questionnaire, designed in two parts. Data collected from the questionnaire was quantitative in nature. The second method of data collection was modified analytic induction (Bogdan & Biklen, 1992) which was qualitative in nature.

Questionnaire

Demographic Information

Demographic information about each teacher was collected through the first page of the questionnaire (See Appendix B). This information included the date the questionnaire was completed, the respondent's gender and age, the grade level taught, certifications held, educational background, highest degree earned, total years taught, years spent in current school, and whether and when the respondent had attended professional development sessions on assessment. One open-ended question asking teachers to describe how young children should be assessed was also included in this section of the questionnaire.

Design of the Questionnaire

Examining professional literature determined that no available instrument would measure teacher beliefs about both standardized
testing and authentic assessment methods. A new instrument was developed to measure these beliefs. A series of statements about assessment was developed. To establish construct validity of the instrument (Borg & Gall, 1989), these statements were sent to experts in early childhood education and assessment for review and comment. These experts included early childhood classroom teachers, graduate students in early childhood programs, and university faculty members.

The revised instrument was administered to a group of nine early childhood teachers to determine how easily the form could be completed. The average time to finish the questionnaire was fifteen minutes. These teachers suggested minimal changes in the format of the questionnaire.

The beliefs scale of the questionnaire (see Appendix C) consisted of 20 statements about assessment of young children. Teachers responded to each statement by choosing a number on a seven-point, Likert-type scale. The numbers on the Likert scale indicated the degree to which the teacher agreed or disagreed with each statement. The value of 1 indicated the strongest level of disagreement and the value of 7 indicated the strongest level of agreement with the statement. The value of 4 indicated neutrality, in which the respondent neither agreed nor disagreed with the statement.

Following the format of the seven-point, Likert-type scale, the second scale of the questionnaire was designed to determine assessment practices of the teachers (see Appendix D). This portion of the questionnaire required respondents to select a number, one through seven, which indicated the frequency that they use twenty different types of assessment activities. On this scale, the value of 1 indicated
that the teacher almost never (less than monthly) used this activity and
the value of 7 indicated that the teacher used the activity very often
(daily use). The value of 4 indicated frequent use of the assessment
activity, at least every other week.

Three types of scales commonly used to measure attitudes and
beliefs are summated rating scales, equal-appearing interval scales, and
cumulative or Guttman scales. Of these three scales, the summated
rating scale, which includes Likert-type scales, is the most useful in
behavioral research (Borg & Gall, 1989). The use of a seven-point,
Likert-type scale has been demonstrated to successfully measure
beliefs and practices of early childhood educators (Charlesworth, et al.,

The researcher used a questionnaire format similar to that of
Charlesworth and her associates (1991, 1993). In two studies designed
to measure the developmental appropriateness of kindergarten teachers' 
beliefs and practices, they found value in using questionnaires for
determining teachers' beliefs and practices and suggested that a scale 
for indicating degree of agreement or disagreement was far superior to 
a simple agree/disagree format (Charlesworth, et al., 1993).

Pilot of the Questionnaire

After reformatting the questionnaire, it was piloted with thirty 
teachers of pre-kindergarten through third grade classes, the same 
population as the larger research study. The pilot was conducted with a 
convenience sample, although an effort was made to select teachers who 
held widely differing opinions about assessment of young children.
Pilot Data Analysis

The data from the two scales of pilot questionnaire were analyzed using the Statistical Package for the Social Sciences - (SPSS), the most commonly used computer program in educational research (Borg & Gall, 1989). A factor analysis was conducted for the twenty items on the beliefs scale. The reliability coefficient alpha for the entire instrument was .89 and the rotated factor matrix produced five factors. Two statements, the only two statements written in a negative form, constituted the fifth factor. These were statements 15 and 18 on the Teacher Beliefs Scale. Eliminating these two statements from the instrument reduced the number of factors to four and increased the reliability of the instrument to .92.

Administration of the Questionnaire

Teachers involved in the study received the questionnaire in September, 1993. Questionnaires were mailed to each school site in sealed envelopes addressed to individual teachers. A stamped, self-addressed envelope was provided so that each teacher could easily return the questionnaire to the researcher. A second mailing of the questionnaire to nonrespondents was sent two weeks following the first mailing and telephone calls made to nonrespondents in an effort to reach an 80% response rate so that valid generalizations could be made (Borg & Gall, 1989).

Interviews

The second method of data collection was interviews with selected teachers. Bogdan and Biklen (1992) described the methodology used in this study as modified analytic induction. "The procedure of
analytic induction is employed when some specific problem, question, or issue becomes the focus for the research. The procedure has been used extensively in open-ended interviewing ..." (1992, p. 70). In modified analytic induction methodology, data collection begins with an in-depth interview of one teacher. In the in-depth interview, the researcher encouraged the teacher to describe a variety of issues related to the topic of research, including beliefs about assessment in general, specific methods used for assessing different developmental areas, and rationales for these methods. The conversation between researcher and teacher was audio-taped and transcribed. As a supplement to the interview, the researcher recorded impressions and responses to the interview using anecdotal field notes. These notes included "observations, conversations, interpretations, and suggestions for future information to be gathered" (Agar, 1980, p. 112).

From the first interview, an initial descriptive theory about early childhood educators' beliefs and practices about assessment was developed. The theory included philosophical statements about how young children learn, how assessment must fit the learning styles of those children, the teacher's preservice training in assessment and subsequent training in assessment methods and how this training affected personal beliefs about assessing young children. Other teachers holding similar beliefs about assessment were interviewed in a similar manner. After each interview, the evolving theory was modified. After several interviews with teachers who believe in and practice authentic assessment methods, teachers whose questionnaire responses placed them at the opposite end of the continuum of beliefs
about assessment were interviewed. These teachers held views which were not consistent with the evolving model of early childhood educators' beliefs and practices about assessment. By interviewing teachers who beliefs reflected both ends of the assessment continuum, a more comprehensive theory was developed (Bogdan & Biklen, 1992).

**Selecting Teachers for Interview**

Teachers were interviewed on the basis of the volunteering for this portion of the research. All teachers who were selected indicated an interest in participating in the second phase of the research through their answer to the final question on the first part of the questionnaire. The strength of beliefs in authentic assessment was determined by responses of "agree" or "strongly agree" to statements about authentic assessment methods in the beliefs scale, combined with the self-reported use of authentic assessments methods listed in the second scale. This selection process did not ensure in what proportion teachers interviewed would appear in the entire population. (Bogdan & Biklen, 1992). The sampling was purposeful so that each interview expanded the developing theory about early childhood educators' beliefs and practices about assessment.

**Analysis of Data**

**Analysis of Questionnaire Data**

The data from the two scales of the questionnaire were analyzed using the Statistical Package for the Social Sciences (SPSS). A factor analysis was conducted for the eighteen items on the beliefs scale. The reliability coefficient alpha for the instrument was .81 and the analysis produced four factors. Each factor was named for identification in the
discussion of study findings. Factor one, named "Results of Standardized Tests", had reliability of .78 and consisted of three statements of the beliefs scale:

8. Young children should be placed in special programs based on a single test score.
16. Only results from school district's standardized testing program should be used to assess the progress of young children.
17. Standardized test scores should be used to assign "grades" reflecting the learning progress of young children.

Factor two which was named "Authentic Assessment" had reliability of .76 and consisted of five statements on the beliefs scale:

9. Portfolio assessment is the best measure of a young child's learning.
15. It is important to use observations and interviews as the basis of assessing the progress of young children.
3. Observation of young children in their day-to-day activities is the best measure of a young child's learning.
11. A collection of a child's work and teacher observations can help early childhood teachers as they plan curriculum.
10. The classroom teacher is the most qualified person to assess young children's learning.
Factor three, named "Uses of Standardized Tests", had reliability of .61 and consisted of four statements on the beliefs scale:

4. The results of a national standardized test can help early childhood teachers as they plan curriculum.

6. Young children should be placed in appropriate classrooms according to results of screening and placement testing.

2. A standardized test is the best measure of a young child's learning.

14. The school district diagnostician is most qualified person to assess young children's learning.

Factor four, named "Relationship between Instruction and Assessment" had reliability of .56 and consisted of four statements on the beliefs scale:

12. Classroom instruction and assessment are most effective if integrated.

7. Classroom instruction and assessment are most effective if separated.

Responses for items of each scale were summed in total, then analyzed by MANOVA comparing early childhood certified teachers to those who had not received this certification. Factors were also analyzed by grade levels and by degrees earned.

Analysis of Interview Data

Transcriptions of the audio-taped interviews and field notes were analyzed by the primary researcher, with the assistance of two early childhood educators to ensure the trustworthiness of the interpretation
of the data (Lincoln & Guba, 1985). The two early childhood educators were graduate students who had conducted their own qualitative research studies and who were current in professional readings about assessment and beliefs and practices issues. Both were considered to be secondary researchers. The two secondary researchers assisted in "developing codes, applying ... codes or interpreting field notes to check ... perceptions." (Glesne & Peshkin, 1992, p. 147). The goal of the analysis was to identify teachers' general beliefs about assessment and determine the teachers' place on a continuum of beliefs about assessment ranging from only using traditional and standardized testing to only using authentic assessment methods and to determine how if the beliefs about assessment held by these teachers was consistent or inconsistent with the types of assessment methods they used in their classrooms.

Summary

This study had three primary purposes. First, the research was conducted to identify the beliefs of early childhood educators about assessment. Secondly, the study determined the frequency of the assessment methods they used in their classrooms. Third, the study investigated the relationship between teachers' beliefs about assessment and their classroom assessment practices. Data was collected through questionnaires and selected in-depth interviews.
CHAPTER IV

ANALYSIS OF DATA AND FINDINGS

This study investigated the stated assessment beliefs and methods used by early childhood educators in one north Texas school district. This chapter presents the analysis of the data and the findings of the research study are organized by the five research questions presented in Chapter One. These questions are: (1) What is the nature of early childhood educators' stated beliefs and practices about assessment?, (2) What are the relationships between early childhood educators' beliefs and practices?, (3) What are the factors which influence early childhood educators' beliefs and practices?, (4) What is the relationship between educational preparation and beliefs and practices?, and (5) What are the differences between beliefs and practices of prekindergarten, kindergarten, first, second, and third grade teachers? Four sources of information that were used to answer the research questions included quantitative data from the two scales of the questionnaire and qualitative data from the open-ended question on the questionnaire, the interviews with teachers, and the researcher's journal.

Research for this study began with the initial mailing of the eight-page Beliefs and Practices about Early Childhood Assessment Questionnaire. This mailing occurred the first week of September, 1993. One hundred forty-three teachers in seven different schools
received the first mailing. Third-six (25%) responded to this first mailing. A follow-up mailing to nonrespondents occurred three weeks after the first mailing. Forty-four more teachers responded to the second mailing for a total of 80 (56%) responses. A third contact was made in person by the researcher or a secondary researcher resulting in an additional four responses. Eighty-four questionnaires (59%) were returned to the researcher during a three-month period, from September to November, 1993.

Of the 84 teachers who responded to the questionnaire, 16 volunteered to be interviewed. Thirteen interviews were conducted in October and November, 1993. The remaining three teachers who indicated an interest in being involved in the last phase of the project declined to be interviewed when contacted. Appendix E depicts the number of teachers in the total research population by grade level and school. Appendix F shows the number of teachers at each school who returned questionnaires and the number interviewed.

Teachers' Stated Beliefs and Practices

The first research question of this study was: what is the nature of early childhood educators' stated beliefs and practices about assessment? In responding to the questionnaire's statements about assessment, in writing their beliefs about how young children should be assessed, and in discussing their beliefs about assessment, teachers focused on two types of assessment. The early childhood educators in this study primarily discussed what they believed about standardized testing and what they knew and believed about alternative assessment.
Teachers used the terms alternative assessment and authentic assessment interchangeably.

**Teachers' Stated Beliefs about Assessment**

Teachers' beliefs about how young children should be assessed were written in response to the questionnaire's open-ended question which was: Please describe how you believe young children should be assessed. Their beliefs were also indicated in their responses to the statements about assessment on the beliefs scale of the questionnaire and teachers discussed their beliefs about assessment issues in the interviews.

**Beliefs about Standardized Testing: Responses to Open-Ended Question**

Of the 84 respondents, 33 (39%) referred to standardized testing in their written statements on the last page of the questionnaire. Almost all teachers who referred to standardized testing in their written statements about assessment used negative terms to discuss this form of assessment. Three teachers (4%) specifically stated the belief that all standardized testing should be abolished; however, most teachers who wrote about standardized testing only discussed the ineffectiveness of this type of testing for young children. A kindergarten teacher from Parkville wrote that she felt that standardized testing was "not only inappropriate, it was useless for young children." Another kindergarten teacher from Kellerman wrote:

Standardized tests have no place in a kindergarten classroom. They are too young to understand how to take such a test and there is no reason to place them in such an uncomfortable position.
This position was also shared by teachers who taught first, second, and third grades. A second grade teacher from Gunnington commented:

No one test should be the determiner in a child's scholastic future. I feel children under the age of 9 are too young to be subjected to the horrors of standardized testing.

A third grade teacher from Berryman simply stated that "standardized testing is not the answer."

**Beliefs about Standardized Testing: Responses to Beliefs Scale**

Teachers' responses to the statements on the questionnaire's beliefs scale also demonstrated generally negative beliefs about standardized testing. Only 4.8% of the respondents indicated that they believed that standardized tests were the best measure of a young child's learning. Fifty percent of the teachers strongly disagreed with this statement and an additional 36.9% responded that they disagreed with the statement. Only 15.5% believed that the school district diagnostician was the most qualified person to assess young children's learning, with 66.7% of the respondents disagreeing. The questionnaire included two other statements related to the uses of standardized testing:

**Beliefs Scale Item #16.** Only results from a school district's standardized testing program should be used to assess the progress of children, and

**Beliefs Scale Item #17.** Standardized test scores should be used to assign "grades" reflecting the learning process of young children.
Only 4.8% of the respondents agreed with these two statements. Responses to statements on the beliefs scale demonstrated a general negative reaction to standardized testing for young children.

Beliefs about Standardized Testing: Interviews

In the interviews, teachers expanded on their negative feelings about standardized tests. Teachers discussed the limitations of standardized testing at length. They did not believe that they learned anything new about their students from standardized test results and thought that the testing questions covered too narrow a span of knowledge to accurately determine the abilities of their students. A first/second grade teacher from Porter expressed feelings that were representative of many other respondents' feelings about standardized testing:

I don't think they are doing a service to the students we work with because I feel there are more important things than the isolated skills that the standardized tests test for.

Teachers in this district seemed resigned to the fact that standardized tests had to be administered. Teachers at grades one, two, and three are required by district mandate to administer the Stanford Achievement Test. Results from these tests are typically used to place children in Chapter 1 or gifted programs. Because teachers generally believed that the testing was related to special program funding, they accepted standardized testing and often referred to it as a "necessary evil." None of the teachers who were interviewed indicated plans to try to change the district testing policy; however, they did not believe that
the test results were accurate or even useful. At best, they believed standardized testing results showed a child's capabilities on the particular day of testing. Many teachers questioned the accuracy of results for a child who was having a bad day on the day of testing. Teachers indicated they shared these beliefs about testing with parents and tried to help parents understand that test results were not always representative of a child's abilities. This position was explained by a second grade teacher:

If you have a student that is kind of nervous, they won't do as well as they are able. They are just not good at tests. I tell my parents to look at it (the test results) just like a snapshot. It happened one day. It could have been a good day or a bad day.

While most of the teachers interviewed discussed negative aspects of standardized testing, kindergarten teachers were generally the most vocal about the standardized testing of their students. All but one kindergarten teacher stated the belief that standardized testing of young children was inappropriate. Most students in this school district are given a standardized early childhood assessment near the end of their kindergarten year. Some schools test all kindergarten students. Some schools only test the younger kindergarten students (i.e. those who have birthdays after March 1). The results from this test are used to determine whether the child should go into a regular first grade class or be placed in a developmental first grade class. This test is administered to students individually by the school counselor or a diagnostician. The testing always takes place outside the child's
classroom and is typically administered in the counselor’s office. Teachers discussed how uncomfortable most children felt in being taken from their classroom by someone they did not know well and questioned how this test-taking environment negatively affected the test results.

One teacher who agreed to be interviewed was trained as a diagnostician and had spent most of her career administering standardized tests. This was her first year as a classroom teacher of a four-year-old Head Start class. As part of this federally-funded program, she was required to administer four different standardized tests to each student within the first two months of the school year. While trained as a diagnostician, her statements about standardized testing were similar to the negative views expressed by the majority of teachers interviewed in this study. She stated that she had not learned one thing from the testing that she had not already learned through observing her students as they worked on different activities within the classroom. She did not believe that testing students was a good use of her time as a classroom teacher and said that she did not believe the test results were an accurate depiction of what the children were capable of doing. She said she did not believe that standardized testing was effective until students are in the third grade.

Despite the general negative attitude about standardized testing, seven teachers (8%) wrote statements on the questionnaire which indicated they believed that some testing was acceptable. This position was expressed by a prekindergarten teacher from Parkville:

I am more comfortable with informal assessments and observations than with standardized testing, although I
do trust a good diagnostician's ability to more deeply assess a child’s abilities and perhaps a range of intellectual capacity.

One kindergarten teacher interviewed favored testing and sought out support from standardized testing for some of the opinions she had formed about a few of her students. She specifically asked that some of her students be tested by the school counselor in September. She related that she had observed some children with behavior problems and believed that testing results would help substantiate her observations as she talked with parents of these children:

I mean I had already observed it, so when parents come in here for conferences, I want to explain what our problems are and what they can do. And just having that piece of paper in front of me, as informal as it is, helps them to understand why they are observing these behaviors at home also. It is very obvious when you look at them, why they can not hold their pencil. They are functioning on a three-year-old level. Well, I already knew that, but I needed some data here to back me up.

Belief in Limited Testing

One written comment by a third grade teacher about standardized testing, was, "I also believe that standardized tests can play a role, if and only if, they are used correctly." These two statements represented the most positive attitudes toward standardized testing among all 84 teachers. Despite the beliefs of these two teachers, the reaction of respondents to standardized testing was overwhelmingly negative. Only
a few of the teachers interviewed in this study, referenced above, believed that standardized testing was beneficial to them or to the students in any way. The other teachers did not use testing results at all and questioned the practice of continuing to administer standardized tests.

In summary, not one of the 84 teachers who responded to the open-ended question described standardized testing as a preferred method of assessment or as being particularly helpful to them in working with their students. This opinion held true from comments made during the interviews. Despite the generally negative feelings about testing, teachers in this district appeared to accept standardized testing as either a state mandate or a district-level policy that they had no power to change.

Alternative Assessment Beliefs: Responses to Open-Ended Question

In answering the questionnaire's open-ended question about assessment beliefs, many teachers referred to alternative assessment methods. They mentioned observation, portfolios, collecting base line data to compare to similar assessment later in the year, checklists, surveys, collecting work samples, anecdotal records, interviews, audio and video tape, running records, and self-evaluation by the students. The two methods mentioned most often were portfolios and teacher observation.

Typically teachers wrote about broad statements about using a variety of methods to assess young children. Statements such as: "I believe young children should be assessed in a variety of ways," or "I do know that many varieties and styles of evaluation should be used per
child," were common. These two comments were written by a first
grade teacher from McIntyre and a third grade teacher from Berryman.
Two other teachers elaborated more on what they meant by variety. A
first/second grade teacher from Porter wrote:

I believe students should be assessed using a variety of
methods such as anecdotal records, teacher observations,
tape/audio/video records, samples for portfolios
(writing, math, science), and checklists.

A second grade teacher from Georgetown wrote:
Young children should be assessed using a variety of
methods - most of which involve direct observation by
teachers, parents, and even the students themselves.

While they were not completely comfortable with the documentation
process, they did believe that using checklists and anecdotal records to
record what they observed was beneficial. Several teachers said that
the process of documenting observations helped improve their
observational skills. These teachers generally believed that they were
learning much more about their students because of the process of
documenting observations than they ever had before.

In answering the open-ended question on the questionnaire, some
teachers wrote about global beliefs about how children learn as part of
their explanations of beliefs about assessment. Four teachers (5%)
discussed their beliefs that assessment should be integrated with
instruction or that assessment methods should be similar to learning
activities that students had previously experienced. A kindergarten
teacher from Gunnington wrote:
Children learn through interacting with each other as well as their social interaction with adults. They learn by doing, experiencing and manipulating. And children should be assessed through the same methods that they are learning.

**Alternative Assessment Beliefs: Responses to Beliefs Scale**

In responding to statements on the beliefs scale, 79 of 84 respondents (94.1%) agreed with the statement that it is important to use observations and interviews as the basis of assessing the progress of young children. Seventy-six of the 84 respondents (90.5%) of the respondents agreed with the statement that observation of young children in their day-to-day activities is the best measure of a young child's learning. Fifty-nine of the 84 respondents (70.3%) agreed with the statement that portfolio assessment is the best measure of a young child's learning.

**Alternative Assessment Beliefs: Interviews**

In interviews when asked about their beliefs about assessment, most teachers used terminology that is consistent with alternative assessment. They talked about the need to assess children individually against their own previous work and against grade level expectations. Most teachers indicated that testing was not the best way to discover what young children truly knew about a particular topic or skill. All teachers who were interviewed discussed the importance of teacher observation in assessing young children.

Teachers who were interviewed also explained that their beliefs about how children learn affect their daily decisions about assessment.
methods. One teacher discussed the importance of assessment methods matching the instruction in the classroom. She believed that the match between instruction and assessment would be an important factor in the successful implementation of alternative assessment methods throughout the district. This third/fourth grade teacher from Porter said:

The people that have fought the different kinds of teaching that have come along in the last ten years are going to have a hard time with it (alternative assessment). I think anybody that is not using cooperative learning, are not using any of the new things that have come up, those who are doing pencil-paper-book work ... I don't see how they are going to be able to do alternative assessment. Assessment has to match instruction. If you are not doing the instruction, then you can't do the assessment.

Other teachers discussed how their views of student learning influenced their assessment, as is shown by this reflection by a first/second grade teacher at Porter:

I am less focused on the outcome and more focused on the process that the child is going through. I don't have a set criteria that a child has to reach to be determined to be successful ... I look at all the children on a more individual basis, where they are starting and how far they come in the process, the kind of progress they are making. Now it seems like the assessments I used before
were artificial criteria. How can I have this criterion for first graders when this first grader starts here and this one starts here. So I see it all differently now. Although few teachers wrote about their general educational philosophies, teachers reported in the in-depth interviews that their general belief systems about how children learn has a substantial affect on their decisions about assessment methods they use in the classroom.

Teachers' Stated Assessment Practices

In reporting assessment practices on the questionnaire and in discussing the methods of assessment that they used, teachers discussed standardized testing, alternative assessment methods, and traditional assessment practices. Teachers' assessment practices were often mentioned in their written response to the questionnaire's open-ended question. Their choice and frequency of use of various assessment methods were indicated in their responses to items on the practices scale of the questionnaire and teachers discussed their assessment methods in the interviews.

Standardized Assessment Practices

Classroom teachers reported having no control over whether or not their students were given standardized tests. However, teachers in this study indicated they currently made all decisions about the day-to-day assessment of their students. Although teachers did not report pressure to use specific assessment methods, teachers from one school indicated that their principal was particularly encouraging regarding experimentation with forms of alternative assessment. One teacher indicated that a building level administrator had mandated particular
methods of assessing student progress at another school in the same district.

Almost all teachers indicated on the questionnaire that their students were assessed through one or more standardized tests each year. Routinely prekindergarten, first, second, and third grade teachers administered tests to their own students. Other students were tested by the school counselor or a district diagnostician. This was typical of kindergarten students. Standardized tests listed by teachers in this district included the Stanford Achievement Test (a norm-referenced achievement test), the Otis Lennon Test of Mental Measurement (an intelligence test), the Texas Assessment of Academic Skills (a battery of achievement tests which tests skill areas that improve a student's ability to think independently, read critically, write clearly, and solve problems logically in a real-world context, personal communication with Texas Education Agency, January, 1994), the Developmental Indicators for the Assessment of Learning-Revised (the Dial-R, an individual screening test which assesses motor, concept, and language skills for children, ages 2 to 6), the Language Assessment Scale and Pre-Language Assessment Scale, the Norm-Referenced Assessment Program for Texas test (a norm-referenced achievement test which has been removed from the state required program as of the 1993-94 academic year), the California Achievement Test (a norm-referenced achievement test), the Metropolitan Readiness Test (a school readiness test which measures the cognitive abilities of children 2 1/2 to 8 1/2), the Brigance Diagnostic Inventory of Basic Skills (an informal diagnostic and screening inventory for children in grades kindergarten
through sixth), the Gesell School Readiness Test (a readiness test used to determine grade placement), and an unnamed standardized developmental profile (Grace & Shores, 1992; Wortham, 1990).

In interviews, several teachers mentioned negative reactions of their students during standardized testing. They discussed the stress they observed in their students on testing days, commenting that many students appeared nervous and that some students even became physically ill during the testing process. They described how they tried to prepare their students emotionally for the test-taking process. They talked with their students before the test and tried to alleviate some of the stress by telling students that “this is an opportunity to show everything that you’ve learned this year,” or by telling their students that there may more on the test than you know, but 'just try your best.' They explained to students that testing was not something to worry about. Teachers did not generally believe that this attempt to relieve student stress was particularly effective.

None of the prekindergarten or kindergarten teachers said they changed any classroom routines to prepare students for the testing process. All but one of the first, second, and third grade teachers discussed altering instruction in some ways to prepare for testing. One teacher reported that in previous years she had specifically prepared students for the standardized test, but that she had decided this year not to do any kind of preparation.

Approximately half the first, second, and third grade teachers who were interviewed said they specifically set aside time just before the
testing to drill students. Typical of this type of preparation, a first grade teacher at Porter commented:

I try not to change the schedule too much; however, I need to get the kids used to the format to give them a chance to do their best. So we take that idiotic two weeks out and change everything and do a lot of drill and practice.

The remaining half of the first, second, and third grade teachers tried to incorporate skills they believed would be tested into daily classroom routines throughout the year and only reviewed testing format before the test. A third/fourth grade teacher at Porter responded to a question about preparing her students for standardized tests by saying:

That is what the Daily Oral Geography, Daily Oral Language, Daily Oral Math, and Analogies are for, to prepare them for some of the questions that they might have. That is what I do for them, and we will probably spend some time looking at how the test is put together.

**Alternative Assessment Practices**

In answering the open-ended question, twenty-nine of the 84 teachers (35%) referred to using multiple alternative assessment methods in their classrooms. Thirteen teachers used the term "variety" in discussing their methods of assessment. Each teacher listed different combinations of assessment methods. To describe the variety of assessment methods she used in her classroom, one second grade teacher from Georgetown wrote:
In my classroom I use portfolios, observation checklists, interviews with students, and KWL student self-surveys. This is where the students list what they know, what they want to know, and what they have learned about a particular subject.

Another teacher wrote:

I believe students should be assessed using a variety of methods such as anecdotal records, teacher observations, tape/audio/video records, samples for portfolios and checklists.

While many alternative assessment methods were listed by teachers, observation was included most frequently.

Observation

Thirty-four of the 84 teachers (40%) wrote that observation was a primary method of assessment. Simple comments such as the one made by a prekindergarten teacher at Parkville was typical of many teachers, "I use mainly observation." This attitude was also evident in the primary grades. A third grade teacher from Porter wrote, "Observations during group time is the way I assess our progress." Few teachers mentioned any method of documentation of these observations in their answer to the open-ended question; however, in the interviews, when specifically questioned about how they recorded their observations approximately half of these teachers used some method of documenting student behaviors. Other teachers who were either unfamiliar with methods of documenting observations or uncomfortable using those methods relied on their memories for recall of these observations,
evidenced by a comment from an McIntyre teacher, "I try to assess as I teach. Okay, some of it can just be observation in the classroom, things that I notice when we are doing different activities." Whether documented or not, teachers generally believed that their observation of students was the method by which they learned the most about their students.

**Portfolio Assessment**

The second most frequently mentioned form of alternative assessment mentioned in teachers' written statements about assessment was portfolio assessment. Twenty-two of the 84 teachers (26%) listed portfolio assessment as part of their classroom assessment procedures. Of these 22 teachers, 20 only mentioned using portfolios as they wrote about their assessment beliefs. They did not explain how portfolio assessment was implemented in their classrooms.

Two teachers described the contents of their portfolios in some detail. A kindergarten teacher from Gunnington wrote that portfolios should consist of:

...teacher observations and data, checklists, surveys, samples of children's work both chosen by the teacher and the child, art work, and any other information showing a child's progress.

A first/second multi-age group teacher from Porter listed the contents of the portfolios she used to evaluate her students as:

- one writing sample from each six weeks three polished,
- edited, and published little books from the beginning of the year, middle of year, and end of year
- any work/writing that the child feels is indicative of h/h (sic) learning
- artwork that child might want to include
- anecdotal records from each six weeks
- running records from each six weeks
- language arts checklist, beginning of year, middle of the year, end of the year
- self evaluations of each unit of study completed.

Portfolio assessment was also mentioned frequently in the teacher interviews. Teachers discussed how they selected portfolio entries and the process of working with their students to help them learn to choose their own portfolio entries. Collecting student work samples was discussed as an integral part of portfolio assessment. Specific work samples that were preserved in children's portfolios included: artwork, writing samples, interest inventories, mathematical summary statements, spelling tests in which children selected their own words or poetry selections and were given credit for each sound represented in a reasonable way, and learning logs. One teacher who used learning logs explained:

As far as science and social studies goes, there is a lot of writing that we do, so I include the learning logs in our portfolios. Whatever our theme is, I usually will have a little book like this (indicating several 8 1/2 X 11 pieces of paper folded in half and stapled together). I may say, today, instead of writing in your writing folder,
I want you to write an entry in your learning log about what we have studied so far in our unit. While many teachers said that they were using portfolio assessment, the portfolios that were in their classrooms varied widely in quantity and quality of entries.

**Anecdotal Records**

In responding to the open-ended question, seven teachers (8%) wrote about using anecdotal records and nine (11%) wrote about using checklists in the classroom assessment procedures. Several teachers who were interviewed also discussed experimenting with various methods of documenting their observations. These methods included both checklists and anecdotal records. The checklists were typically used to document student behaviors related to reading, writing, and work with manipulatives as well as adult/child conversations during reading and writing conferences. Anecdotal records were often used to document children’s conversations, center choices, approaches to mathematical problem-solving, reading strategies, and collaborative work. One teacher from Gunnington said:

I try and write down something about each child each week and I try and check to see if I am not noticing some children. If I notice something that they’ve done, I’ll jot it down. You know something that is out of the ordinary like today, in one of the children’s journals, someone who had just been drawing had actually written some letters down.
Few of the teachers who were interviewed were this systematic about writing anecdotal records. Most teachers expressed the feeling that they were still experimenting with documenting their observations.

**Other Alternative Assessment Methods**

Other alternative assessment methods were discussed by individual teachers but were not used by more than one or two teachers. These methods included documenting performance-based tasks, creating rubrics for analyzing student performance on math activities or group projects, recording oral reading or story retellings on cassette tapes, photographing students as they worked in centers, and keeping running records for tracking improvement of reading ability. Student self-assessment was also mentioned by several teachers. Student self-assessment was used in classrooms in two different ways. One was related to making portfolio selections and the other was related to student evaluation of their own work products such as stories, books, and projects.

**Traditional Assessment Practices**

Five of the 84 teachers (6%) responding to the open-ended question about assessment beliefs referred to believing in or using traditional assessment methods. One kindergarten teacher listed using worksheets as an one of her three primary assessment methods. Some teachers indicated that they believed in alternative assessment methods but listed using more traditional assessment methods. One kindergarten teacher from Gunnington wrote that, "Students should be assessed through student profiles on a portfolio," but she continued to report that:
Teachers can administer individual (sic) teacher made tests to help evaluate levels through the use of basal readers and other available materials in other curricular areas.

One first grade teacher, also from Gunnington, reported using "end of the book tests, timed skills tests, writing prompts, graded worksheets, spelling tests, and teacher observations to assess..." A second grade teacher from Georgetown explained that she used graded worksheets because "parents need to see these coming home - they feel more comfortable with tangible grades," and a third grade teacher listed testing and a scope and sequence listing of skills as assessment methods she used frequently.

In the interviews, when asked to describe assessment methods they used in their classrooms, only two teachers initially mentioned using any traditional methods of assessment. These two teachers used skill-based checklists on which they noted whether or not students had mastered specific skills such as letter or numeral recognition. No other traditional assessment methods were mentioned until the researcher asked questions about assessment of specific content area understanding. During this line of questioning, most teachers said they used some form of traditional assessment: end of the chapter tests, end of the book tests, teacher-made tests, timed skills tests, graded worksheets, spelling tests, observational grading, or skills mastery checklists. The two traditional assessment methods that teachers most often mentioned were grading students based on whether or not specific skills had been mastered and administering end of the chapter tests.
from textbooks. Even teachers who were committed to or were experimenting with different forms of alternative assessment relied on some forms of more traditional classroom assessment for certain content areas. Part of their reasoning for using these methods was to determine grades for report cards. Other reasons included not knowing how to use alternative assessment in certain content areas and not having time to investigate how to implement alternative assessment beyond what they were already implementing.

In summary, the nature of early childhood educators' beliefs and practices about assessment can be summarized through the four categories which emerged from the qualitative data and their responses to the beliefs scale of the questionnaire. Teachers in this study are concerned about using standardized testing with young children and do not use the results that come from the standardized testing that is required for their students. They use a combination of authentic and traditional assessment methods to provide information they need for monitoring student progress, planning future instruction, and reporting student achievement or progress to parents. Finally, teachers consider more general educational philosophies about how young children learn during their daily decisions about assessment of their students.

The Relationships between Beliefs and Practices

The second research question was: what are the relationships between early childhood educators' beliefs and practices? Analysis of the answers to the open-ended question on the questionnaire indicated a general agreement between teachers' beliefs and practices. In writing their answers as to how young children should be assessed, many
teachers discussed the ineffectiveness of standardized testing to determine what children know and how the classroom teacher could be much more effective using methods other than testing to assess children. From this data, the relationship between beliefs and practices appeared to be consistent.

While no obvious discrepancies between beliefs and practices were apparent in the written statements themselves, many differences were obvious in comparing written statements about assessment beliefs to reported assessment practices. Discontinuity also appeared in comparing teachers' responses to similar assessment methods on the beliefs scale and the practices scale. Thus from the questionnaire data, two categories emerged: continuity between beliefs and practices and discontinuity between beliefs and practices. The interviews provided more answers to this question. The primary categories of continuity and discontinuity also emerged from the interview data although more than one of these categories was often shared by teachers during the same interview. During the interviews, all but one teacher expressed some degree of inconsistency between what they believed about assessment and their classroom practices. An additional category emerged from the interviews. That category was insecurity about assessment issues and methods. As in the category of discontinuity between beliefs and practices, insecurity about assessment was also expressed to some degree by all but one teacher. Finally, a statistical analysis of authentic assessment beliefs as related to alternative assessment practices was conducted to provide quantitative data for this research question.
Continuity Between Beliefs and Practices

In answering the open-ended question on the questionnaire, many teachers discussed assessing individual children and often mentioned teacher observation and multiple measures as their assessment practices. Some teachers who were interviewed held strong beliefs about alternative assessment and were implementing many different methods in their classrooms. They believed that children should be taught and assessed as individuals. They had experimented with various forms of alternative assessment and were generally pleased with the information they were able to learn about their students using these new methods.

This group of teachers' stated beliefs about assessment and the assessment methods they used in their classrooms were generally consistent. They used multiple methods to evaluate children's progress. They were saving students' work samples and comparing early work to similar pieces created more recently. In this way, they were monitoring children's progress against their own previous work. They were making notes about children's approaches to problem solving and collaborative work. They were taking photographs as children worked on different activities in the classroom and using audio tape to record different reading behaviors.

Although some teachers' beliefs and practices about assessment were consistent, most teachers described themselves as being in a constant state of change regarding assessment. Several teachers mentioned "being on the road" or "being on the right path" toward
alternative assessment. A first/second grade teacher described her feelings:

I feel like it has taken me a long time to read enough and learn enough about it to get to where I am right now, but I still don't feel like I am at the place where I need to be, but when I look at how I am doing compared with the majority of teachers I see, I think that I have a pretty good understanding. I feel like I am getting there.

Only one teacher used the term "stage" to describe her "path" from traditional assessment toward alternative assessment, but many teachers described similar experiences which could be considered stage-like. In talking about first learning about alternative assessment methods, they described a general awareness of something new in the area of assessment. Some mentioned hearing new terminology at a workshop. Others heard colleagues discussing portfolio assessment. Following the vague awareness, most teachers discussed seeking out specific information about checklists, anecdotal records, or portfolios. Most, then discussed using methods developed by other people and then a gradual recognition that the methods developed by others had to be revised to better meet their assessment needs. Finally, teachers described feeling enough confidence in their knowledge about alternative assessment and their own students to begin developing their own methods of alternative assessment.

Most teachers using alternative assessment methods spoke of some misgivings on how they were implementing what they believed, but overall, their beliefs about assessment and the decisions they made
about what assessment methods to use in the classroom were consistent.

There were also several teachers in this study who held much more traditional beliefs about assessment. They believed that children's performance should be compared to grade level standards and that this comparison should be assessed through methods such as worksheets and tests. These teachers demonstrated continuity between their written statements about assessment and their reported assessment practices. One teacher indicated on the practices scale of the questionnaire that she frequently used end of the chapter tests, end of the book tests, and teacher made tests. In answering the question about how young children should be assessed, she wrote, "Use a checklist of skills to be mastered by a specified time. If mastered, go to next skill or level." A first grade teacher also indicated on the practices scale that she used graded worksheets on a daily basis and frequently used end of the chapter, end of the book, timed skills and teacher made tests. Concerning the assessment of young children she wrote:

I strictly believe that children need to be assessed frequently in all subject areas. I use end of book tests, time skills tests, writing prompts, graded worksheets, spelling tests, and teacher observations to assess my children.

Continuity between beliefs and practices existed for many teachers in this study, both those who believed in and used traditional
assessment methods and those who believed in and used alternative assessment methods.

**Discontinuity Between Beliefs and Practices**

Discontinuity was apparent between what teachers said they believed about assessment and in their reported assessment practices in both the responses to the questionnaires and in the interviews. Obvious differences between beliefs and practices emerged from comparing written statements about assessment to the assessment methods that teachers indicated they used most frequently on the practices scale of the questionnaire. Other differences between beliefs and practices were evident in the way in which some teachers defined and implemented particular assessment methods. Some discontinuity between beliefs and practices was evident when teachers described beliefs which favored alternative assessment, yet they used a combination of alternative and traditional assessments in their classroom. Still other differences were evident when teachers talked about standardized testing in negative terms, yet described feelings of pride when their students' test scores were high.

**Discontinuity Between Written Statement and Practices Scale Responses**

Discontinuity was apparent in teachers' responses in 15 of the 84 questionnaires (18%). Teachers' written statements about assessment beliefs contradicted assessment methods they used as reported on the practices scale. A second grade teacher from Kellerman wrote, "Teacher observation is the best method of assessment. Learning should be a personal experience involving meaningful activities." On the
beliefs scale, she strongly agreed that observation of young children in their day-to-day activities is the best measure of a young child's learning. However, in math and science, she indicated that she used end of the chapter tests, end of the book tests, and graded worksheets on a daily basis and administered teacher-made tests weekly.

Another second grade teacher, this one from Porter, wrote:

I think we can get a better assessment of children's through observation, checklists, and portfolios. Video and audio interaction are good to show development through a school year.

This teacher's written statement indicated that she believed in alternative assessment methods, but on the practices scale she indicated that she used end of the chapter tests, end of the book tests, teacher-made tests, and graded worksheets weekly.

A first grade teacher wrote, "I believe young children should be assessed by portfolio, observation and interviews" (teacher's emphasis). She strongly agreed that portfolio assessment was the best measure of a young child's learning and that it was important to use observations and interviews as the basis of assessing the progress of young children. In the interview, she continued to discuss the importance of alternative assessment; however, on the practices scale of the questionnaire, she indicated she used end of the chapter tests weekly for math and science and used graded worksheets daily and spelling tests twice a week for language arts.

The discrepancy between indicating beliefs in alternative assessment methods and using traditional assessment practices
appeared to be stronger for first, second, and third grade teachers. Of the 21 questionnaires in this category, two were from kindergarten teachers, eight were from first-grade teachers, seven from second-grade teachers, and four from third grade teachers.

**Discontinuity between Responses to the Two Scales**

Discontinuity also appeared in comparing beliefs and practices as reported on the questionnaires two scales. More than 70% of the respondents indicated that they believed that portfolio assessment is the best measure of a young child's learning and more than 90% agreed that a collection of a child's work and teacher observations can help early childhood teachers as they plan curriculum. Yet, self-reported use of portfolio assessment was dramatically lower than the numbers of those who believed in this assessment method. Only 37 of the 84 teachers (43%) reported using portfolio assessment in the area of social/emotional development at least twice a month. In math, 43 teachers (51.1%) used portfolios, and in language arts, 46 (54.8%) used portfolios at least twice a month. All three figures are much lower than the figures for the beliefs statements about portfolios. Even in self-reported practice, teachers indicated much less use of portfolios than their beliefs would indicate.

**Discontinuity due to Definitions of Assessment Practices**

The second most apparent discrepancy between individual teacher's beliefs about assessment and the practices they used in their classrooms related to the definition of assessment terms and implementation of alternative assessment methods. This difference was only apparent in interviews when the researcher was able to
analyze assessment artifacts. While several teachers reported using alternative assessment methods such as portfolios and anecdotal records, the artifacts that they produced did not meet current definitions of these assessment methods. For example, the Northwest Regional Educational Laboratory defined portfolio as "a collection of a child's work which demonstrates the child's effort, progress, and achievements over time" and anecdotal records as "factual, nonjudgmental observations of an observed activity" (1991). Most of the portfolios and anecdotal records shared during interviews did not meet these criteria.

**Artifacts**

Most teachers who were interviewed said they believed in portfolio assessment and claimed to be using this method of assessment in their classrooms. In examining documents they referred to as portfolios, it was obvious each teacher was defining portfolio assessment differently. One teacher shared what she called portfolios. The file folders contained a collection of teacher-completed forms that indicated whether or not students had mastered discrete skills. Still another teacher referred to a set of file folders which contained only two samples of kindergarten children's artwork as portfolios. In both cases, the teachers had marked the questionnaire that they strongly agreed with the statement that portfolio assessment is the best measure of a young child's learning and marked on the practices scale that they used portfolio assessment for language arts, math, and social/emotional development daily. Another teacher shared a set of "portfolios" which contained only mimeographed worksheets completed
by students. This teacher had agreed with the questionnaire statement about portfolio assessment and indicated she used portfolio assessment for all three areas at least every other week.

The same pattern of multiple definitions and contradictions between self-reported practice and artifacts emerged regarding anecdotal records. Several teachers listed anecdotal records as part of their classroom assessment program. Again, in examining the artifacts the teachers presented as anecdotal records, many would not fit generally accepted definitions of this type of documentation of teacher observations. One teacher's spiral notebook of anecdotal records consisted of a listing of student behavior that she did not believe was appropriate. Another teacher described her written notations of mastery or nonmastery on a skills checklist as anecdotal records. Neither of these methods of notetaking satisfy the current definition of anecdotal records which is a written description of a single incident related to one or more students. In several cases, teachers who reported using anecdotal records on the practices scale of the questionnaire had no anecdotal records in their classroom to share during the interview. Some teachers discussed using alternative assessment methods and cited observation as their primary source of information about children's progress; however, they did not use any method of documenting their observations. They relied on their memories to recall information about students.

**Combining Alternative and Traditional Assessment**

Another category of discontinuity between beliefs and practices related to combining alternative and traditional assessment methods.
The use of alternative assessment methods typically fell along content area lines. Teachers who used alternative assessment methods to document children's progress in the area of literacy tended to use more traditional methods to assess children in math. The same discrepancy existed for teachers who used alternative assessment methods to assess children's mathematical understandings. They tended to use more traditional assessment methods for the language arts.

These teachers generally recognized the discontinuity between their beliefs and practices, acknowledging that they believed alternative assessments were better for children and gave teachers more information about students. They went on to explain that they were only able to research and implement a limited amount of change in their classrooms. Each teacher in this category had plans to expand the areas in which they were using alternative assessment methods.

Other differences between beliefs and practices about assessment surfaced in relationship to how teachers felt about standardized testing. Several teachers said they did not believe in testing, yet the same teachers were excited when their students' test scores were high. A first grade teacher who said she mainly used portfolio assessment to measure student progress commented:

If it (the standardized test results) doesn't turn out too great, I think 'Oh, well,' and just pass it on. If they did really well, then we can brag about that and rave about that. Last year was the first year my students have scored higher on their tests than their ability level since I've been teaching, so that made me feel really good. I
felt like that I had really done something right in my teaching that year.

In summary, discontinuity between teachers' beliefs and practices about assessment existed on many different levels. Some reported practices that contradicted their written beliefs about assessment. Others used alternative assessment terms to describe the assessment methods they were using in their classrooms but their documents showed that they were not implementing those assessment methods according to current acceptable definitions. Other teachers described feelings about standardized tests that did not match their stated beliefs about this type of assessment. Still other teachers reported on the practices scale that they were using assessment methods that were not confirmed during the interviews.

Insecurity about Assessment Beliefs and Practices

Not all teachers' statements about beliefs and practices about assessment fit into the two categories of continuity or discontinuity. A third category of comments emerged that reflected a state of insecurity. Few teachers expressed insecurity about what they believed about assessment in their written statements or in the interviews. Most appeared more comfortable in what they believed about assessment than they did in the implementation of their beliefs. Many teachers had heard alternative assessment methods mentioned in inservices, but they did not have enough information about specific methods to understand the purpose or implementation of those methods. One kindergarten teacher expressed her frustration and confusion about implementing anecdotal records in her classroom:
I am trying to get into anecdotal records, but this has been a rough year. I have not been able to. I have a book that I carry back and forth to school every day, trying to find the time to get into that. I am just not sure what to be writing down. I started with just behavior, so I could keep track of who was doing what on what day, but I have not been able to do it the way I think I should be doing it.

Other teachers were insecure about what they were trying to do in the area of assessment. They thought they should be using alternative assessment methods, but they did not have sufficient information to be able to say that they really believed in this assessment method. While they thought they should be using portfolios or anecdotal records, they had no particular focus for implementing any of these methods. Two different teachers expressed this feeling. One teacher said:

It (authentic assessment) is one of these new things that has come along. I don't know enough. I just feel there is still a lot that is not known about it. I am just grabbing everything I can right now.

Another teacher echoed the same feelings by saying:

I am always looking for more information on it. I do, because I haven't found that one method that shows every aspect of the student nor will I probably ever. So every time I see something in a journal, I think, I'll try that. So I am still on the look.

Many teachers who were beginning to experiment with one or more alternative assessment methods felt they wanted to implement more of
these methods in their classrooms but were unsure of how to proceed. Organizational issues were often points of confusions for teachers in trying to implement new methods of assessment. This feeling was expressed by a first/second grade teacher:

It is hard for me to find a checklist that totally meets my needs. Now I have 8 or 10 and that's just too cumbersome and time consuming. I know that there's a lot of other things out there and that the checklist is not the end all in assessment. I just started teaching multi-age and this (alternative assessment) is just something else new. I've got a long way to go, just in getting organized and keeping up with everything.

Some teachers simply felt overwhelmed by all the responsibilities of being a teacher and could not focus on assessment issues. One teacher who was experimenting with portfolios and anecdotal records commented about her previous year of teaching kindergarten:

I was kind of just trying to survive and the way I did assessment was just to check to see if they knew the letters of the alphabet and that kind of thing. Just coming in as a new teacher, I was not secure enough to know what to do.

Most teachers believed that they needed additional knowledge about alternative assessment methods but few knew how to proceed in securing that knowledge. In the interviews, teachers usually reported some insecurity about assessment issues.
Correlation between Authentic Beliefs and Practices

To further analyze the relationship between early childhood educators' beliefs and practices about assessment, a Pearson product-moment correlation was computed (n=79) between factor two of the beliefs scale, authentic assessment, to the alternative assessment methods on each of the three practices scales. Factor two on the beliefs scale, as well as the other three factors derived from the factor analysis, was explained in Chapter 3. A relationship between beliefs about authentic assessment and use of alternative assessment methods in the area of language arts was indicated (r = .43, p < .001). Relationships between authentic assessment beliefs and alternative assessment practices in math/science (r = .28, p < .01) and between authentic assessment beliefs and alternative assessment practices in behavior/social/emotional development (r = .23, p < .01) were also indicated; however, the values were much lower.

In summary, in examining the relationship between early childhood educators' beliefs and practices about assessment, the statistical correlations supported evidence found in the analysis of qualitative data. Some teachers demonstrated a general consistency between their beliefs and their practices; however, many teachers in this study made decisions about assessment in their classrooms that were inconsistent with their assessment beliefs. Still other teachers were insecure about what they should be practicing related to assessment issues.

Influences on Beliefs and Practices

The third research question was: what are the factors which influence early childhood educators' beliefs and practices? While five
categories of responses emerged from the interview data, the single most often mentioned influence was the atmosphere of the school in which the teachers worked. The supportive nature of the school atmosphere falls into the more general category of institutional factors. The other four categories of influences on beliefs and practices included formal and informal training, personal factors, programmatic requirements and needs, and uses of assessment.

**Institutional Influences**

Institutional factors that influenced teachers beliefs and practices about assessment included those at the building level, the state level, the district level, and pressures they felt from society in general and the early childhood profession in specific.

**Building Level Influences**

The most frequently mentioned institutional influence occurred at the school building level. Teachers talked about the atmosphere at different schools. They indicated this atmosphere created by the personalities of the people that work there either motivated or stifled experimentation with new educational concepts. Atmosphere or climate was difficult for teachers to define but one of the elements they believed contributed to this factor was the role of the principal in encouraging but not insisting on experimentation with alternative assessment methods. A second contributing factor teachers mentioned was colleagues who were also experimenting with various forms of assessment. Several teachers talked about having friends who were willing to share their experiences and spend time discussing the results of their efforts as critical to their own willingness to experiment with
authentic assessment. Teachers from Porter felt particularly supported by their principal and colleagues. This comment from a first/second grade teacher was typical of responses from all teachers at Porter:

I feel like, from the building level especially, we are encouraged to try new assessment methods. I think our administration openly invites us to do what we know is best for children. In doing that, part of that is the way we assess children, in seeing them as individuals. They are very upbeat and morally supportive, trying to keep our morale up and encouraging us to do that with our children. I think most people here feel like there is a lot of support for us to try things. We are trusted.

Teachers who felt most secure in their use of or experimentation with alternative assessment worked in buildings where they felt this support from administration and also believed their colleagues were interested in what they were learning. A first/second grade teacher also from Porter expressed this idea very well:

I've been in two buildings. The building where I am now, the colleagues are very interested in knowing what I am doing and wanted to know more about it so they may choose to use that in their classrooms if they want to. Where I was before, my colleagues could have cared less about what I was using and the administration was insistent that I use the basal tests and the regular spelling tests.
This support at the building level was frequently described by teachers as a necessary factor for their inclination to make changes in their educational practices, more specifically in their practices related to assessment.

**State Level Influences**

The second most frequently mentioned institutional factors which influenced beliefs and practices about assessment fell under the category of state requirements. State mandated standardized testing did affect several teachers in how they assessed students. Second and third grade teachers were somewhat concerned about the Texas Assessment of Academic Skills test administered in third grade. Despite the fact that most of these teachers did not believe in standardized testing or the results from such tests, they did acknowledge being influenced by the testing process itself.

Teachers discussed how the state mandate for numerical grades for second and third grade students influenced the types of assessment activities they used. Even the teachers who believed in and were trying to use alternative assessment methods in their classrooms believed they had to develop some method to assign numerical grades for report cards.

A few teachers mentioned essential elements and how those grade level requirements affected the way in which assessment was implemented in their classrooms. They were concerned about having to document each student's abilities in relationship to each of the essential elements for their grade. Most teachers were concerned about
meeting state requirements and said that mandates did influence the decisions they made about assessment in their classrooms.

**District Level Influences**

District requirements was another category under institutional influences. The district did require standardized testing that was not mandated by the state. Teachers discussed the same issues related to testing that they mentioned when discussing state required testing.

Some teachers discussed their belief that a lack of district-wide philosophy about assessment was a hindrance to many teachers in changing from traditional assessment methods they had used for so many years. These teachers believed that a district policy favoring alternative assessment would have to be adopted and extensive training provided before many teachers in the district would consider changing their assessment methods.

Report cards or progress reports at each grade level were developed at the district level and were also a strong influence on the assessment classroom teachers made. Teachers who believed that alternative assessments were not helpful in completing the report cards were less inclined to use the newer assessment methods. They viewed the alternative assessment methods, particularly portfolios, as too time consuming if they had to be maintained in addition to the other assessments they used to prepare the report cards or progress reports for each of six grading periods that were required by combined district and state mandates. One teacher from Kellerman stated:
I might be interested in changing some of my assessment methods if it would be beneficial to me as the teacher. I just don't have a lot of extra time. I can't do it all.

Supportive influences for alternative assessment did exist at the district level, but few teachers were aware of the district-level interest in promoting alternative assessment. The district-level administrators who were particularly interested in moving toward alternative assessment methods were only mentioned by two teachers in interviews. Academic councils have been established by one district level administrator. Teachers from each elementary school were invited to volunteer to serve on each of the academic councils, one for math, one for language arts, one for social studies, and one for science. From descriptions by two teachers at two different schools, the agenda for each council appeared to be first reviewing and rewriting the district level curriculum for that particular content area, then examining assessment methods for the newly written curriculum. A second grade teacher from McIntyre indicated how she was changing her beliefs about assessment through her participation on the math council:

We are reading lots of articles on assessment, a lot, and we got a book a couple of weeks ago about assessment. We are looking at alternative assessment. We are learning about checklists and portfolios and writing rather than just the regular paper and pencil tests. I am not very far along, but that makes sense.

The emphasis of the assessment portion of the councils' work was to investigate the uses of portfolio, anecdotal records, and using children's
writing about content area processes as the major assessment tools for the district. The second teacher who mentioned the work of the district academic councils was very optimistic about the district's move toward alternative assessment. She said:

I am on the math council. This year we are coming up with alternative assessments and then we are going to Austin and try to get TAAS waivers. That is our goal this year. There is myself and one other on the math council that are in charge of getting portfolio assessment training, then training everybody on the math council, and then going out and training the teachers in the district.

Despite this teacher's optimism, none of the other teachers interviewed were familiar with the work of the councils.

These same two teachers also felt supported at the district level because of funding which the single district level administrator, a curriculum supervisor, approved for training about alternative assessment. Funding for teacher-selected training was secured when these two teachers asked the curriculum supervisor to pay for specific conferences they wanted to attend. No other teachers were aware of district-level funding available to them.

**Pressure Related Influences**

Another influence on teachers' reported beliefs and practices about assessment was pressure from a variety of sources. Three teachers who were interviewed mentioned feeling some pressure about using particular assessment methods. Two teachers referred to the pressure associated with standardized testing. Another teacher
mentioned that a district level administrator in the department of special education had said at a district wide meeting of special education teachers that raising TAAS scores was a district goal for the 1993-94 year. No other teachers mentioned this meeting or hearing about a district goal of raising TAAS scores. One teacher mentioned that her principal talked about raising standardized test scores. All other teachers interviewed said they felt no overt pressure to prepare students for standardized tests. The third teacher mentioned that at another school in this same district, the principal at the previous school had insisted that she give spelling tests and administer tests that were a part of the basal reading series. With this exception, all teachers interviewed said they felt they could use any assessment methods they chose to use in their classrooms.

Many teachers felt that standardized test results were necessary because of society's pressure on schools to prove that they were improving public education. They believed that this pressure was behind much of the testing that they were forced to administer. Other teachers said they felt pressure from parents of their students and indicated that they were using more traditional assessment methods so that they could have number or letter grades to share with parents. While these teachers felt pressure to use standardized or traditional assessments, two teachers mentioned feeling pressure from the field of early childhood educators not to use these methods.

Influences of Training

The issues about influences of training on beliefs and practices about assessment fell into two major categories. Those categories
were formal and informal training. Formal training included undergraduate teacher education classes, graduate level classes, inservices and workshops, and professional organizations. Informal training included professional literature and the relationships that teachers developed with each other.

**Formal Training**

Several teachers discussed the lack of training they received in alternative assessment methods during their undergraduate work. Some complained that portfolios were not addressed in any of their undergraduate classes. One teacher who graduated two years ago made a comment reflective of the feelings expressed in a few of the interviews:

> I feel sorry for some of the other teachers, even some of them that graduated five years ago. They did not have the same kind of (college) education that I did. They never even read about different kinds of assessment. It's harder for them than me.

For this teacher, the concepts of multi-age classes, cooperative learning, and alternative assessment were not new. They were incorporated into his undergraduate college training. For many teachers, these are new ideas, requiring substantial change in the way they teach. For him, these concepts are just "how I learned to teach."

Some teachers talked about only becoming aware of alternative assessment methods in graduate level classes they had taken in the past two years. The teachers who indicated feeling comfortable using portfolio assessment, anecdotal records, running records, and developmental checklists were the teachers taking advanced coursework
in which the philosophy behind alternative assessment was discussed and experimentation with these assessment methods were course requirements. Two teachers mentioned specific professors who encouraged them to use alternative assessment methods. These professors not only provided instruction about the alternative assessment but modeled these methods in their college classes.

District and school building level inservices and workshops were also mentioned as influencing classroom assessment decisions but to a much lesser degree than college classes. Teachers said that short inservices after school or on Saturdays simply did not provide enough information. They stated that many times terms were mentioned without sufficient explanation for actual implementation in the classroom. They said they had heard in several inservices that portfolio assessment should be used to evaluate students, but they were not given details on what kinds of information should be included in portfolios or how that information should be evaluated once it was collected. The teachers most positive about inservices were those whose colleagues had attended extended workshops and then come back to the school and reported what they had learned in summary form.

One teacher mentioned professional organizations as a support system for her experiments with alternative assessment. She was active in the Texas Council for Teachers of Mathematics, attended state conferences, and kept in close contact with colleagues across the state who were also experimenting with alternative assessment methods for evaluating mathematical understand of children.
Informal Training

Professional literature was an area several teachers referred to as informal training. They specifically mentioned articles from professional journals and the few books they found which explained how alternative assessment could and should be used in the classroom. Several teachers sought out information about assessment in professional literature. One third/fourth grade teacher from Porter commented:

I am always looking for more information on it. I do because like I said, I haven't found that one method, all-fire method, that shows every aspect of the student nor will I probably ever. But I am still on the look. So every time I see something in a journal, I think I'll try it. So I am still on the look.

Several teachers said that an important influence for them was the informal network that they had established with other teachers. Teachers reported learning much more from other teachers than they did in formal inservices and workshops or in reading professional literature.

I think, for myself, I probably wouldn't have even thought of doing it (portfolio assessment) if it hadn't been the direction that my school was going and I saw colleagues that I respect, whose work I respect. I looked at them and thought, "Hey maybe this will work."

Most of the teachers interviewed tended to believe other teachers who were actually using portfolios in their own classrooms over inservices given by "experts" or articles or books about portfolio assessment. This
informal training network took different forms. Some teachers reported seeking out mentors, forming study groups themselves, working with their grade level teams, or forming one-on-one relationships with teachers from other grade levels. One teacher described the experience of a study group:

She (study group leader) gives us lots of articles to read, I mean a lot. I would never have time to find all those articles, but when someone else gives them to you, it's great. We all read them before we meet and discuss what we thought about what was written, like if we could use some of the things that other schools are doing. I probably would not have changed how I assess kids on my own, but I was interested in math and I thought I could learn more about math in this group. I am, but I am finding out more about how to teach math by changing how I assess.

Knowledge about the newer methods of assessment was secured by teachers in both formal and informal ways.

**Personal Factors**

Several personal factors influenced teachers' beliefs and their decisions about which assessment methods to use in the classroom. These factors included how their students reacted to assessment; interactions with parents of their students; their own experiences with different assessment methods, both positive and negative; and constraints they felt which kept them from implementing changes in their assessment of students.
Student Reactions

Teachers often mentioned the reactions their students had to more formal assessments as a major influence in their beliefs about testing. Teachers who observed stress in their students during standardized testing were less likely to use teacher-made tests as assessment methods. Teachers also commented about noticing children's reactions to grades. Some teachers said that the importance children placed on "getting good grades" to the exclusion of what they were learning in class influenced a decision to begin using different methods of assessment. A first grade teacher said:

Alternative assessment seems to be less stressful for the kids. They like seeing the "E" but whenever they don't get the "E," they know that they haven't made the mark. It really defeats all the work that we try to do for self-esteem. Although an "S" is still really good, but they still know no matter what you say to them, they know that an "S" isn't as good as an "E."

Several teachers mentioned changing to alternative assessments because of a desire to meet professional responsibilities to meet individual needs of their students and to find ways of assessing students that helped build their self-esteem. One teacher said the motivating factor for her experimentation with alternative assessment methods was helping more students become successful at school. She commented:

Some students probably have been hindered or hurt by only one way of assessing. Maybe they don't do well on a
pencil-paper test. I think more students could be successful with alternative assessments.

The belief that alternative assessment was better for students was an idea common to several teachers who were using this type of assessment in their classrooms. Another teacher expressed this idea slightly differently:

We are really dealing unfairly with children if we don't look at lots of ways and lots of different views of how a child is working. I've taught the old way. Children actually knew more than they were being given credit for knowing when a teacher just evaluated using pencil-and-paper evaluations and only number grades or standardized tests. I felt like it (changing to alternative assessment methods) was for the children.

How students reacted to assessment methods seem to be a strong influential factor in many teachers' decisions about which assessment methods to use in their classrooms.

Interactions with Parents

There were two beliefs related to teacher beliefs regarding parents. The first was what teachers thought the parents' needed to know about their children's progress. The second was what teachers perceived were expectations from parents. These perceived expectations often related to number or letter grades. Teachers commented that parents felt more comfortable with grades because that was a part of their own educational experience and the grades gave them the sense that they understood where their child was in
relationship to other children. Some teachers said they continued using traditional assessments because they believed parents want to see traditional grades. One second grade teacher wrote, "I do use graded worksheets. Parents need to see these coming home. They feel more comfortable with tangible grades."

Other teachers said that they take the initiative to try to educate parents about alternative assessment. One third/fourth grade teacher from Porter explained:

I have a lot of parents that ask about their child's work cause I don't send that much stuff home, so I started sending home the checklists that we do together. Parents like it because it is a lot more detailed than just sending home a worksheet with a grade on it, because it shows not only that the teacher took the time to think through what they wanted out of the assignment, but they took the time to think through what each individual did related to the assignment.

Parents' expectations or what teachers perceive to be parental expectations seem to influence the assessment decisions made by classroom teachers.

Teachers' Own Experiences with Assessment

Another personal factor that influenced teacher beliefs and practices about assessment was their own personal experiences with assessment. Those who had experimented with alternative assessment and felt their efforts had failed were much more negative about future exploration of this type of assessment. Teachers who felt successful
about their efforts to implement alternative assessment methods were excited about expanding their use of this type of assessment. One teacher commented:

This is my first year to try portfolios and I specifically decided to stick to literacy. You know, start small, then add. Well, I don't think that literacy is starting small! Sometimes I am just overwhelmed by it all, then I look through some of the stuff I collected at the beginning of the year and what they are doing now and it is all worth it. Next year I am planning to add math to portfolios. I am starting to read a little bit now and I think it could be really great. Looking at changing my assessments of the kids is making me think about how I teach math. I am really excited about what this could all mean.

Constraints

The final factor related to beliefs and practices about assessment was a negative factor. Some teachers thought they should be making changes in their assessment of students but talked about constraints that kept them from implementing any changes in the assessment. Time was the constraint they mentioned most often. With one exception, teachers believed that alternative assessment was more time consuming than traditional assessment methods. This feeling was true of both teachers who were using these methods and those who had not yet initiated alternative assessment in their classrooms.
Some teachers acknowledged that alternative assessment required extra time and accepted that fact. A first/second grade teacher from Porter said:

Many people ask me, 'Doesn't it take a lot of time to do some of these things?' And I say, 'Yes, but it is worth it.' It does take time to check my dictations every weekend. It does take time to do running records, but I do running records when the students are having their independent reading, so isn't that a good use of my time. I can give them a little conference then based on what I saw them doing during their running record. So that doesn't bother me and certainly it is a lot more worthwhile than when I used to take home 120-150 worksheets every night and check those kinds of papers. I probably spent two hours every night checking those worksheets, which I thought were stupid and hated, but I didn't know what else to do. Not all teachers viewed alternative assessment as particularly time consuming. Another teacher, who also teaches at Porter said:

Actually for me, I feel like it is a lot easier for me to do. I don't have a stack that I take home every day like I used to. The first year I would sit with a stack. There was so much paper pushing that the kids did. If each child did three dittoes a day, that was 60 papers a day. This, for me, right now is taking a lot less time which I never thought it would. I thought that this would be so time consuming. You know, how do you choose what
assignment to put in there. It seems to be coming pretty easily what goes in there (in the student's portfolio). You know, the little notes that I take. I scribble it down on a piece of notebook paper.

Another issue which was a constraint for some teachers was the feelings of discomfort brought on by trying to change classroom practices. Most teachers expressed their feelings of comfort by describing changing to alternative assessment as "hard." A second grade teacher commented, "I am just learning and I think it makes sense. I just think it will be hard to do." A first/second grade teacher from Porter said, "I do feel like it (anecdotal records) is important. It is just very hard to do." She believed she should be using anecdotal records to record observations of her students but had not been able to adjust her classroom routines to include the notetaking.

Some teachers were trying to develop ways of reducing the number of hours that they were investing in implementing alternative assessment methods. One teacher discussed using volunteer parents and high school helpers as a way of reducing the number of hours that she had to spend implementing portfolio assessment in her classroom.

Teachers generally believed that portfolios and other methods of alternative assessment were much more time consuming than what they were currently using. While most teachers were concerned about the time required outside the contact hours with students, one teacher was concerned about the time that alternative assessment took away from her time with children:
I learn most about children from observation. I am doing a lot more watching this year than I ever have and writing down what they are doing and taking the time to do that is something I am having to make myself do. It's the budget of how much my time is worth. If I am sitting tutoring one-on-one, how valuable is that time? If I just sit here and watch each child for even a minute. That is a lot of time each day to watch a kid for a minute. That is 20 minutes out of the day that I sit and watch. To kind of weigh that is kind of a struggle for me, but I am trying.

Other teachers were reluctant to begin experimenting with alternative assessment or to expand what they were currently using because they did not feel they had sufficient knowledge to take the next step forward in changing their assessment of students. Lack of knowledge about assessment methods was often mentioned as a constraint to change.

Several teachers commented that the traditional mindset of other teachers would be a constraint for large numbers of teachers in this district if they were asked to change from traditional assessment to alternative assessment. A second grade teacher from McIntyre said:

They think what we are doing now is fine, so why do we have to change? I think that they have to be shown that it can work and give them different kinds of assessments which they can use and be successful with.
Some teachers were concerned about using only alternative assessment in elementary school because of what students will encounter in secondary and higher education. One teacher commented:

The question is 'how do you prepare the children for that because they are going to always come up against a test. You know, to get out of high school, there is a test and it is not that you have a paper that is better than the last paper. You have to make a certain score. That will be such a culture shock for them. It is really whether or not you make the grade, whether or not you match up.

In summary, teachers reported that several personal factors influenced the decisions they made about which assessment methods they used in their classrooms.

Programmatic Requirements and Needs

Program requirements also were also mentioned as an influence on teachers' beliefs and practices about assessment. Teachers talked about being required to administer standardized testing because of state funding for programs such as Chapter 1, gifted pull-out programs, bilingual classes, and English-as-a-Second Language programs; however, the funding situations the teachers referred to do not require standardized test scores. While different departments of the Texas Education Agency confirmed that they do accept forms of alternative assessment to satisfy requirements for funding, teachers were unaware of this, still believing the district had to provide standardized test scores to fund programs. This belief helped teachers accept standardized testing as what they described as a necessary evil. While
they did not believe in standardized testing, they believed that the additional benefits of the funding for the children outweighed the negative effects of testing on young children.

Other program areas which influenced assessment in the classroom were specific instructional programs. Two teachers who were interviewed were active in the Reading Recovery program sponsored by the district. Both teachers were inclined to use alternative assessment in their classrooms before the Reading Recovery training, but became leaders in their schools regarding alternative assessment after the training. Both teachers were implementing all elements of Marie Clay’s program and were teaching other teachers how to use these assessment activities.

Teachers who were still using textbooks as the guide for content area instruction reported being influenced by the assessment methods recommended in the textbooks. They often used the end of the chapter tests or tried the assessment methods referred to in teachers’ guides. Teachers who expressed that they were beginning to broaden their instructional methods to include more authentic methods of instruction said that they were using more authentic methods of assessment associated with their new methods of instruction. One teacher mentioned using the Math Their Way program and used more observation and anecdotal records to assess her students’ progress in math. One teacher mentioned using GEMS (Great Explorations in Math and Science). This teacher was also using anecdotal information and had begun to ask students to write about their mathematical explorations and problem solving. She used these two methods of assessment as her primary
Methods for evaluating students' progress in understanding mathematical concepts.

**Uses of Assessment**

Another factor that teachers reported which influenced their decisions about assessment issues was the way in which they used the results from different assessment methods. From data on the open-ended question on the questionnaire three categories emerged regarding use of assessment results. These categories were monitoring student progress, planning future instruction, and reporting student achievement or progress to parents. In responding to the open-ended question, ten teachers (12%) made comments about using assessment results to monitor student progress. Four teachers (5%) mentioned using assessment for planning future instruction and four other teachers (5%) mentioned using assessment for reporting to parents. Data from the in-depth interviews also included the three categories mentioned above. More detailed information was gained through the analysis of the interviews and one additional category emerged from analysis of the interviews. That category was self-evaluation for the teachers. Each teacher who was interviewed indicated their choices of assessment methods was in some way influenced by how they intended to use the assessment results.

**Monitoring Student Progress**

The majority of teachers who mentioned how they used the results of assessment discussed monitoring student progress. Representative comments fell into two categories. Teachers tended to look for developmental progress or they looked for skill mastery. Comments
typical of teachers who used assessment to monitor a child's progress included one made by a first/second grade teacher at Porter, "I believe that children should primarily be assessed by observations of their progress over time." For the teachers who primarily used assessment to monitor mastery of skills, this statement by a first grade teacher from McIntyre was representative, "Use a checklist of skills to be mastered by a specific time. If mastered, go on to the next skill or level."

In the interviews as in responses to the open-ended question, the primary reason teachers gave for using assessment in their classes was to determine student progress. Some teachers were primarily concerned about children acquiring skills and used various assessment methods to monitor student mastery of reading and mathematical skills. The skills teachers mentioned most frequently were letter recognition, symbol/sound identification, and mastery of addition and subtraction facts. They were also concerned whether students met grade-level learner objectives. A kindergarten teacher from Kellerman expressed this position:

At the beginning of the year and at points in the middle, I have my own checklist for letters, sounds, numbers, and as we complete a math unit, that information. I write mastery and what month, just so I can keep track of that...I call them over as I have time and ask one-to-one and then I jot down whether they can do it or not and if they can't, that lets me know I need to keep working on it
and if they've got it, then I don't, so that is my assessment.

The teachers who were using some form of alternative assessment method were more inclined to discuss using assessment to determine individual student's progress against their own previous performance rather than whether students mastered specific skills or met specific learner objectives. A first grade teacher from Porter expressed this opinion:

I think the most important criteria for my assessing them is have they made progress from where they started out, from where they were. I think that is the most important criteria for my assessing students. Have they made progress? If they have, then whether they accomplished the objective is not that relevant. It depends a lot on their backgrounds. If they come in with a big deficiency in a subject area and at the end of the unit, they really haven’t met the objective or they are not really very far along, compared to the rest of the class, but for them, with zero knowledge and background, and they have really come a long way, then that is important also.

Another first grade teacher stated similar feelings:

I think what I look for, above all, is to see the progression a child has made in whatever it is, so anything I look at, I think about what they did last week or yesterday or the beginning of school and view their
work in terms of what they did before. I think that you have to look at kids that way.

Teachers also mentioned using alternative assessment methods to help the students understand their own progress. A first grade teacher found this aspect of alternative assessment one of the most exciting reasons to use new assessment methods:

I kept their papers from the very first day of school. Every once in a while through the year I keep things. I could see a big change, but even more for the kids. When they look back and see, it is really rewarding for them. They laugh at how they wrote their name and everything else. It is really rewarding for them, and really rewarding for me too.

Monitoring student progress was the primary use of assessment results for the early childhood teachers involved in this study.

**Planning Future Instruction**

Although few teachers wrote about using the results of assessment as the basis for their instructional planning, several teachers discussed this issue in the interviews. They determined future lessons for the whole class and for individual students based on assessment outcomes. Anecdotal records about how children used manipulatives helped teachers plan future math lessons. Running records helped teachers determine books which fell into each student's instructional level of reading. Checklists of behaviors typical of different writing stages helped teachers decide about the next set of mini-lessons about writing to provide for different groups of students.
A first grade teacher from Porter commented, "I use information I gain from assessment mainly to plan future lessons. I need to know where we are going from here."

In the interviews, teachers said they never used standardized test results to plan curriculum, but they did use results from traditional and alternative assessments to plan future lessons. These beliefs were substantiated by responses to two statements on the beliefs scale. In response to the statement that a collection of a child's work and teacher observations can help early childhood teachers as they plan curriculum, 81 of 84 respondents (96.4%) agreed, while only 14 (16.7%) agreed with the statement that the results of a national standardized test can help early childhood teachers as they plan curriculum. While teachers indicated that they use the results of classroom assessment methods for instructional plannings, they said the results of standardized tests play no part in planning for future lessons.

**Reporting to Parents**

The second most often mentioned use for assessment was reporting to parents. Almost all teachers who were interviewed discussed this. All teachers believed that parents had a right to know how their children were doing in classes, but they did not agree on what kinds of information about children should be given to parents. The difference in opinion tended to fall into two categories. One group of teachers believed they should report a student's progress as compared to their own previous abilities. The other group of teachers preferred reporting how the student was doing compared to grade level expectations.
Second and third grade teachers who were required by district and state mandates to assign report card grades all discussed how they used various assessment methods to arrive at the grades they gave students. Some teachers found it easier to give numerical grades based on traditional assessment methods like classroom participation and teacher-made tests, but many were experimenting with different ways of incorporating alternative assessment and report card grades. One teacher at Porter who developed rubrics to evaluate her students' mathematical activities also developed grading scales to correlate to each point on the rubric scale. In this way, she combined alternative assessment with the need to assign grades.

During interviews two teachers discussed how they used assessment of their students to evaluate themselves as teachers. The same first grade teacher from Porter discussed using assessment outcomes to plan future lessons said:

Sometimes it lets me know that I've really missed the mark, that I overexpected something or I really undershot them and they really blew me away on what they came up with, so it helps me gauge where to go on my next lessons because the kids I have every year are so different.

Teachers' uses of assessment results varied from classroom to classroom. As they make decisions about which assessment methods to choose, teachers generally consider how they will use the information gained from assessment results to monitor student progress, plan for
instruction, report to parents, or analyze their own success in the classroom.

In summary, while many factors influenced teachers' beliefs and practices about assessment, the most often expressed positive influences for use of alternative assessment was the atmosphere at the school where they taught, training they had about alternative assessment, and how they perceived their students reacting to assessment methods. The most often reported negative influence about using these newer methods was the additional time that teachers believed would be required to use alternative assessment.

Relationship between Educational Preparation and Beliefs and Practices

The fourth research question was: what is the relationship between educational preparation and beliefs and practices?

Educational preparation may be considered in two different ways from the demographic information provided by the respondents on the questionnaire. These two ways are Texas state certification held by teachers and the level of university degree that teachers had obtained. Early childhood certification might imply that teachers who hold this level of certification have had different educational preparation than teachers who hold elementary, English as a second language, and/or gifted and talented certification. Thirty-five teachers (42%) held early childhood certification and 49 (58%) did not. Teachers who have obtained master's degrees (42, 50%) might have had different educational preparation than teachers who hold bachelor's degrees (42, 50%).
A multivariate analysis of variance (MANOVA) was used to determine whether teachers who held early childhood certification differed from those teachers who did not hold this certification related to the four factors beliefs scale dependent variables: results of standardized tests, authentic assessment, uses of standardized tests, and the relationship between instruction and assessment. These factors were discussed in Chapter 3. MANOVA was also used to determine whether differences existed between teachers who had a bachelor's degree and teachers who had a master's degree on the same four factors of the beliefs scale.

MANOVA results regarding early childhood certification showed statistically significant difference between the two groups (Wilks Lambda = .85, F(4,79) = 3.41, p < .05). A univariate analysis of variance was used to determine on which scales the two groups differed. Results indicated significance for factor three, uses of standardized tests, (F (1,82) = 5.64, p < .05). Table 1 depicts the means and standard deviations for all four belief factors as related to the issue of early childhood certification.

MANOVA results regarding level of university degree obtained by teachers showed no significant difference between the two groups. Teachers who had obtained bachelor's degrees were not different from the group of teachers who had obtained master's degrees. This analysis indicates little relationship between relationship between educational preparation of teachers and the beliefs they hold about assessment and the decisions they make about assessment methods;
Table 1  
Means and Standard Deviations related to Early Childhood Certification
early childhood certified n=35  not early childhood certified n=49

<table>
<thead>
<tr>
<th>Factor/Certification</th>
<th>Mean</th>
<th>SD</th>
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<tbody>
<tr>
<td>Results of Standardized Tests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>early childhood certified</td>
<td>19.20</td>
<td>3.653</td>
</tr>
<tr>
<td>not early childhood certified</td>
<td>19.71</td>
<td>2.111</td>
</tr>
<tr>
<td>Authentic Assessment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>early childhood certified</td>
<td>28.20</td>
<td>4.451</td>
</tr>
<tr>
<td>not early childhood certified</td>
<td>28.71</td>
<td>4.248</td>
</tr>
<tr>
<td>Uses of Standardized Tests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>early childhood certified</td>
<td>21.97</td>
<td>4.076</td>
</tr>
<tr>
<td>not early childhood certified</td>
<td>19.78</td>
<td>4.249</td>
</tr>
<tr>
<td>Relationship between Instruction and Assessment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>early childhood certified</td>
<td>11.20</td>
<td>2.576</td>
</tr>
<tr>
<td>not early childhood certified</td>
<td>11.76</td>
<td>2.321</td>
</tr>
</tbody>
</table>

however, these procedures could not control for actual content of college courses.

During the interviews some teachers provided some insights into this question of the relationship between educational preparation and beliefs and practices. Teachers who had graduated from college within
the past two years or who had taken a graduate class within that same time period indicated that they had classes which focused on the newer authentic assessment methods. These teachers held much stronger beliefs about assessment and were more inclined to be using alternative assessment methods in their classrooms. One teacher said:

After taking the class that used Marie Clay's new book *The Observational Survey*, it's crazy to think about how we were assessing children before. It just makes so much more sense this way. I don't think I could go back to the old ways of assessing children's literacy development.

These teachers indicated that having professors who explained why alternative assessment was preferable to traditional assessment or standardized testing influenced their beliefs about assessment in favor of the newer methods. They also said that having college classes at either the undergraduate or graduate level which required experimentation with alternative assessment increased their confidence about using it in their classrooms.

Teachers whose college training did not include alternative assessment methods tended to select more traditional methods of assessment and use assessment methods used by the majority of their building colleagues. These teachers said that their college training included classes on testing and measurement, but that they did not rely on this training when constructing tests in their classrooms. Teachers stated that educational preparation can make a difference in beliefs and
practices about assessment, but they said this preparation is at the college course level and is related to the content of those courses.

In summary, the teachers in this study who were using alternative assessment methods in their classrooms said they believed that educational preparation could influence teachers' beliefs and practices about assessment.

Grade Level Differences of Beliefs and Practices

The fifth research question was: what are the differences between beliefs and practices of prekindergarten, kindergarten, first, second, and third grade teachers? This question was investigated both qualitatively and quantitatively. Analysis of the responses to the open-ended question on the questionnaire showed small differences of beliefs about assessment or assessment methods among teachers by grade level. Table 2 indicates the number of teachers, by grade level, that mentioned several issues related to assessment as they wrote about their beliefs about how young children should be assessed. These issues include standardized testing, traditional assessment methods, assessment through observation, portfolio assessment, use of multiple measures, using assessment to look for progress, and using assessment to look for skill mastery. Teachers considered these assessment issues to be important as they wrote about how they believed young children should be assessed. Among grade levels only minor differences related to beliefs about assessment are apparent in this table.

However, using a MANOVA procedure to analyze the differences among the five grade levels on the dependent variables of the beliefs
Table 2

Frequency of Teacher's Written Comments about Assessment Issues by Grade Level

<table>
<thead>
<tr>
<th></th>
<th>PK</th>
<th>K</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total who Responded</td>
<td>10</td>
<td>13</td>
<td>28</td>
<td>14</td>
<td>19</td>
<td>84</td>
</tr>
<tr>
<td>Standardized Testing</td>
<td>6</td>
<td>5</td>
<td>7</td>
<td>9</td>
<td>6</td>
<td>33</td>
</tr>
<tr>
<td>Traditional Assessment Methods</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Assessment through Observation</td>
<td>5</td>
<td>7</td>
<td>9</td>
<td>8</td>
<td>5</td>
<td>34</td>
</tr>
<tr>
<td>Portfolio Assessment</td>
<td>0</td>
<td>4</td>
<td>8</td>
<td>7</td>
<td>3</td>
<td>22</td>
</tr>
<tr>
<td>Multiple Measures</td>
<td>2</td>
<td>5</td>
<td>9</td>
<td>8</td>
<td>5</td>
<td>29</td>
</tr>
<tr>
<td>Assessment Re: Progress</td>
<td>1</td>
<td>4</td>
<td>8</td>
<td>4</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>Assessment Re: Skill Mastery</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>14</td>
</tr>
</tbody>
</table>

scale, significant differences were determined (Wilks Lambda = .61, F(16, 232.82) = 2.55, p < .001). A univariate analysis of variance was used to investigate for significant differences for each factor. Results indicated significant differences for factor two, authentic assessment (F (4, 79) = 4.49, p < .01), and factor three, uses of standardized tests (F (4, 79) = 3.27, p < .05).

The post hoc analysis using the Scheffe method indicated for factor two, authentic assessment, second grade teachers differed significantly at the .05 level from prekindergarten and from third grade teachers. Also for factor three, uses of standardized tests,
kindergarten teachers were statistically different at the .05 level from third grade teachers. These results indicated that there are significant differences between the beliefs of teachers of young children.

There are also differences between the assessment practices of prekindergarten, kindergarten, first, second, and third grade teachers. While the self-report of some assessment practices on the practices scale of the questionnaire is consistent, others are not. Virtually all teachers report using teacher observation as a primary assessment method. This is consistent across grade levels. The use of alternative assessment methods, including portfolios, anecdotal records, checklists, and rating scales, is also reported in almost equal numbers across the grade levels. However, first, second, and third grade teachers are much more likely to include traditional assessment methods in their classrooms. Classroom testing, including teacher-made tests, end of the chapter and end of the book tests, and spelling tests, is much more frequently administered in first, second, and third grade classrooms than in prekindergarten or kindergarten. Although several Pre-K and kindergarten teachers reported using graded worksheets, this practice was much more common in the other three grades. The primary difference of self-reported assessment methods used by different grade levels was the use of traditional assessment methods.

Summary

The findings from this research indicated that the early childhood educators involved in this study reported generally negative beliefs about standardized testing and indicated stronger beliefs in alternative
assessment than in traditional assessment. They described multiple factors which influence their day-to-day decisions about the practices they use to assess young children. These assessment practices range from very traditional to a combination of alternative assessment methods. While some teachers in this study used assessment methods that were consistent with their beliefs, many more teachers had discontinuity between their beliefs and practices.
CHAPTER V

CONCLUSIONS AND IMPLICATIONS

Summary
This purpose of this study was to investigate the beliefs and practices about assessment of early childhood educators in one school district in north Texas. An analysis was made of teachers’ responses to the Beliefs and Practices about Early Childhood Assessment Questionnaire. This questionnaire measured what early childhood educators believed about standardized and alternative assessment of young children and which of twenty assessment methods they used in their classrooms as well as the frequency of that use. An analysis was also made of individual in-depth interviews conducted with teachers who volunteered for this portion of the research project.

Conclusions
Six primary conclusions may be drawn from the data collected in this investigation of 84 early childhood educators. First, the vast majority of educators in this study did not report using standardized test results as part of the assessment of their students. Instead, these teachers said they relied on a combination of traditional and alternative assessment methods to assess student progress. Second, most early childhood educators in this investigation expressed beliefs about assessment which incorporated alternative assessment terminology; however, many of their practices were more traditional than their professed beliefs. Third, teachers changing from traditional assessment
to alternative assessment methods seemed to move through predictable stages. These stages appeared to be awareness, training, experimentation, personalization, and diversification. Fourth, many factors influenced teachers' beliefs and practices about assessment; however, the strongest factors affecting assessment beliefs and practices were knowledge about assessment methods, the atmosphere of the school, and what teachers believed was best for their students. Fifth, educational preparation seemed to affect teachers' beliefs and practices about assessment, only if their university courses specifically included the study of alternative assessment. Sixth, there were some apparent differences between the beliefs and practices of prekindergarten, kindergarten, first, second, and third grade teachers.

Beliefs and Practices about Assessment

In general early childhood educators in this study did not believe that standardized testing was appropriate for young children. They did not support testing of young children, except in special cases. While almost all the students of the early childhood educators involved in this study took at least one standardized test each year, the teachers reportedly disregard the results of this testing for classroom use. Administration of standardized tests was viewed by the vast majority of this group as merely compliance with state or district mandates. Their beliefs about standardized testing were fairly uniform and almost always negative.

In this study, teachers' beliefs about other forms of assessment were mixed and they tended to combine the use of traditional and alternative assessment methods in their classrooms. They generally
believed that students should be assessed individually, but this individual assessment took many different forms. In their own classrooms, teachers' decisions about assessment were generally based on the desire to know more about their students or wanting to monitor student progress or skill mastery. Most of the teachers in this study were using a combination of both traditional and alternative assessment methods, although there was a tendency for teachers to use one or the other type of assessment the majority of the time. Teachers who primarily used traditional assessment methods were most interested in determining what facts children knew and what skills they had mastered. Teachers who primarily used alternative assessment methods seemed to be most interested in determining how children used what they knew and how they used the skills they were acquiring. In almost all cases, teachers who were implementing alternative assessment methods in ways consistent with current professional literature did so in only one content area. Several teachers were primarily interested in literacy development of their students and used a variety of alternative assessment methods to document the progress of their students in this area. One teacher was beginning to incorporate these methods in related content areas that they integrated with their language arts instruction, such as social studies. More traditional assessment methods were still being used in content areas such as math and science. For other teachers who were primarily interested in the content area of mathematics, they used alternative assessment methods for math and more traditional assessment methods for language arts.
Most of the teachers who were interviewed tended to use alternative assessment methods as one feature of their assessment of students. Those teachers who had begun changing assessment methods had done so because they believed that the newer assessment methods were better for their students. This belief was expressed by a second grade teacher:

Basically I am one of those teachers who has used tests - either teacher-made or made by the publisher, that kind of thing...(but) some student probably have been hindered or hurt by only one way of assessing. This is better for more students. I think more students could be successful with alternative assessment.

Use of Alternative Assessment

Teachers' self-reported beliefs about assessment including their responses on the beliefs scale and their written statements were generally more closely aligned with alternative assessment philosophies than what was evidenced by artifacts shared during the interviews. Many teachers have incorporated the some terms associated with alternative assessment into the language they use when discussing assessment of young children. However, some were not using definitions for these terms that are generally presented in professional literature.

The different definitions being used for alternative assessment terms accounted for many of the discrepancies between stated beliefs and practices found in this study. Many of the teachers had developed personal, working definitions of such terms as "portfolios," "anecdotal
records," and "checklists" that were only slight variations of the traditional assessment methods that they had been using for many years. In examining the artifacts that teachers labelled "portfolios," it was clear that most of these teachers were using a working definition of portfolio in which information about a student was placed in a file folder. They did not seem to understand the importance of using multiple methods of documenting teacher observations and collecting children's work samples over time (Graces & Shores, 1992; Puckett & Black, 1994).

On the practices scale of the questionnaire, teachers consistently reported using observation as one of their primary assessment methods. This was confirmed in interviews as most teachers said that observation was one method they relied on daily. Most of the teachers who were interviewed indicated that they believed observation was an alternative assessment method. While teachers' observations can provide valuable insights into a child's developmental progress, only through documentation using checklists, rating scales, anecdotal records, or other methods can these observations be considered alternative assessment methods. Therefore, many teachers who considered themselves to be using alternative assessment through daily observations of their students were not in fact implementing alternative assessment methods according to the standards set in professional literature (Clay, 1993; Grace & Shores, 1992; Puckett & Black, 1994).

Proposed Stages of Change
The teachers who were interviewed discussed similar feelings about the process of incorporating alternative assessment methods into their classroom routines. They appeared to move through similar stages in the process of implementing new assessment methods. These stages could be descriptively labeled as: awareness, training, experimentation, personalization, and diversification.

First, teachers became aware of alternative assessment methods. Some teachers read about alternative assessment methods while others heard the terms "portfolio assessment" during inservice presentations. Still others heard colleagues discussing newer methods of assessment they were beginning to use.

Following the general awareness of portfolio assessment, anecdotal records, or other methods of alternative assessment, these teachers began to seek out specific training or began looking for a colleague who was experimenting with these methods. Several teachers experienced difficulty in finding sources that offered specific logistical information about different alternative assessment methods. They wanted to find step-by-step directions for using portfolio assessment in the classroom and were not able to find that kind of information.

After locating sufficient information to feel somewhat comfortable with the concept of alternative assessment, teachers first used methods which had already been developed by experts or colleagues. Some teachers collected checklists and rating scales they found in professional journals or books about assessing students. Other teachers labeled file folders and began collecting work samples from their
students, frequently seeking advice from teachers who were already using portfolio assessment.

One teacher explained how she felt during this stage:

Portfolios...I feel like I am in the crawling stage still. I don't know if I am doing it right, if I am pulling the right things and I am kind of nervous about changing over to the kids choosing their own papers to put in there. I kind of feel like I am in the beginning stage and do need to learn more about it, but I am really happy that I am doing this now.

After using examples from other people, most teachers began personalizing the alternative assessment methods. They realized that the methods developed by other people did not work for them or were not as appropriate for their curricula as they wished. When they came to this realization, teachers began revising checklists, methods of taking anecdotal records, and the contents and organization of portfolios. This stage was described by a first/second grade teacher at Harrison:

At first I went through the whole observational study (referencing the work of Marie Clay) with one child, mainly because of this class I am taking. Then I came up with my own. I did a language arts checklist. I drew that up myself. Now I've revised it and I feel like I made it easier to use and more concise. Actually I wrote a second checklist for some of my really high level children that are moving up into intermediate type reading behaviors, but I haven't used it yet.
Once teachers had begun devising their own methods of alternative assessment and began to feel more comfortable with these methods, they began adding different methods of assessment. Some teachers started by collecting children's work samples and organizing the work into portfolios, then added anecdotal records to document their own observations of children's behaviors, then added running records to document progress in children's reading. Other teachers began with other alternative assessment methods and added different ones as they began to feel successful with the first method.

In each case, the teachers who were using different methods of alternative assessment started using these methods in one content area. Only after moving through all the stages mentioned above regarding the first content area did teachers begin considering how they might begin to use alternative assessment methods in other content areas. One teacher was beginning to integrate language arts and social studies instruction and was using alternative assessment for this integrated instruction. Some other teachers in this study had reached the point of that they were considering using alternative assessment methods for other content areas, but had not actually done so.

Each stage in the process of moving from traditional assessment toward more authentic assessment methods took time. The following comments from a second grade teacher at McIntyre are representative of how teachers feel about needing time to make changes in their assessment methods:

I have always been one to observe my students, kind of keep a mental note of ... they know this or they don't
know that. But now it is time to try to manage and organize and find the time to make the checklists or whatever to assess a student. I think I will have to do it real slowly.

These stages of changing from traditional assessment methods to experimentation and regular use of alternative assessment methods were common to several teachers involved in this study.

Influences on Assessment Beliefs and Practices

Teachers beliefs about assessment and their decisions about what assessment methods to use in their classrooms had multiple influences. The three specific factors that teachers mentioned most often were knowledge about assessment methods, the beliefs and practices of other teachers who were important to them, and what they thought was best for their students.

Teachers seemed to need both theoretical knowledge about the value of alternative assessment methods to students and teachers and practical knowledge about the implementation of these methods before they would consider experimenting with them. Teachers felt that they needed to have sufficient knowledge about alternative assessment before they would be willing to experiment with the newer methods of assessment. Without knowledge about the value of alternative assessment and specific information about implementation of these methods, teachers were generally unwilling to change their current assessment practices.

Another factor influential in changing classroom assessment methods was the beliefs and practices of other teachers who were
important to them. For many involved in this study, the other teachers who were important to them were colleagues who taught in the same building. Other teachers who did not share the same philosophical approach to assessment with their building colleagues found support outside their building. This support took many forms. Some teachers developed mentoring relationships with a single teacher. Other teachers established study groups with several teachers. Still others formed other collaborative relationships with teachers in other cities with whom they established relationships through professional organizations.

Without specific training in methods of assessment, teachers tended to use what was suggested in teachers' editions of textbooks or what other teachers around them used. The assessment beliefs and practices of teachers in this study seemed to be very influenced by the beliefs and practices of those people who surround them. The concept of beliefs being interwoven with school structure and social climate has been discussed in other beliefs and practices research studies (Lester & Onore, 1990; Smith & Shepard, 1988; Stipek et al., 1992).

Influence of Educational Preparation on Assessment Beliefs

Educational preparation did seem to have some affect what teachers believed about assessment and which assessment methods they were using with their students. Quantitative analyses indicated generic educational preparation issues such as certification and degree held did not significantly influence teachers' beliefs and practices about assessment; however, qualitative analyses indicated specific college classes and specific professors who teach alternative assessment methods did influence teachers' beliefs and practices. All the teachers
who had studied alternative assessment methods in university settings, both undergraduate and graduate classes, were using or at least experimenting with these methods in the classrooms.

**Differences between Grade Levels**

The results from this study indicated that there were significant differences between prekindergarten, kindergarten, first, second, and third grade teachers. The post hoc analysis indicated significant differences between kindergarten and third grade teachers regarding the use of standardized tests. One possible explanation for this difference may be the emphasis placed on preparing students to take the state-mandated Texas Assessment of Academic Skills test in the fourth grade. Third and fourth grade teachers in this district attended special inservice presentations about the importance of students scoring well on this test and ways to help students perform better on this standardized test. The information provided in these meetings may have influenced the third grade teachers to be more favorable about standardized testing and thus may account for the differences between kindergarten teachers and third grade teachers.

The post hoc analysis also showed that second grade teachers differed significantly from prekindergarten and third grade teachers, with second grade teachers favoring the use of alternative assessment. One possible explanation for this difference may be related to teacher inservice. Just as third grade teachers attended inservice presentations on the TAAS testing procedure, prekindergarten teachers in this district attend inservice presentations on administration of the standardized testing required by their Head Start procedures and may have been
influenced by these presentations. With the focus of building level inservices about assessment on standardized testing, fewer of the prekindergarten and third grade teachers had attended inservices about alternative assessment methods.

The results of this study indicated that assessment for some teachers in this district is in a state of transition. Of the teachers who were interviewed, all were at some level of the stages suggested earlier in this chapter. All were at least aware of alternative assessment terminology whether or not they were implementing these methods in their classrooms. Standardized testing is required at every grade level and inservice presentations at some grade levels encourage an emphasis on scoring well on these types of assessment. At the same time, alternative assessment methods are being encouraged by some administrators. Teachers indicated that inservice presentations did not always provide enough information about implementation of these methods so that they felt sufficiently prepared to implement these methods of assessment in their classrooms. Assessment terminology is not uniformly defined in the district; therefore, written statements about assessment beliefs and practices may mean different things to different teachers and administrators.

Implications

The findings of this investigation hold implications for all teachers and teacher educators. Teachers in this study indicated that three factors were most influential in helping them change from using traditional assessment methods to experimenting with alternative assessment methods. These three issues were knowledge about
assessment issues, support of other people with similar beliefs, and beliefs about what is best for children. These three factors could be applicable to teachers of other age groups as they are to early childhood educators.

**Implications for Early Childhood Programs**

The factors which early childhood educators in this study cited as most influential should be of particular interest to those early childhood educators who work in or administer early childhood programs and who favor alternative assessment. These three factors are: helping teachers acquire knowledge about alternative assessment methods necessary for them to make changes in their classroom practices, supporting those teachers in the process of change, and helping teachers understand educational practices that are best for children. All three issues can be addressed within individual educational programs.

Two of the issues are related to knowledge. Specific information about the value of alternative assessment and details about implementing different methods of alternative assessment can be provided for early childhood educators in a variety of ways. Inservice presentations can be organized to offer information to teachers. Teachers from other programs who have already begun implementing portfolio assessment, are writing and evaluating anecdotal records, or are working with a variety of documentation methods can be brought into schools as inservice presenters or as on-going consultants. Articles from professional journals can be gathered, duplicated, and distributed to teachers in order to share what other teachers are doing.
in the area of assessment. The same approaches can be used to help teachers gain more knowledge about what is best for young children.

The issue of support for teachers going through the process of change can also be addressed within individual educational programs. Study groups can be organized. Administrators or teachers in leadership roles can help encourage and support teachers who are attempting to move from traditional assessment methods to alternative assessment methods. Furthermore, support for teachers should be provided in the acknowledgement that such changes require long periods of time. This support could be provided through realistic expectations of teachers attempting change as well as attempts to help the teachers themselves understand that such changes require several months, perhaps years.

**Implications for Teachers of Other Age Groups**

The implications for early childhood educators may also hold true for teachers of other age groups. Teachers must be provided specific information about the value and logistics of implementing alternative assessment methods with their students. They must also be supported and encouraged throughout the process of change.

**Implications for Early Childhood Teacher Education Programs**

The results of this study indicate that it is important for teachers to acquire a knowledge base about alternative assessment methods before they will consider changing from the assessment methods they are currently using. Teachers must understand how authentic assessment methods can help them better understand their students. Teachers must also be helped to understand the specific logistics of implementing authentic assessment methods in their classrooms. The
needs of early childhood educators fall into two categories: preservice teachers, typically served by teacher educator programs, and teachers who are already working in schools.

For preservice teachers, teacher education programs must address the needs of beginning teachers by providing a broad base of knowledge in child development, also addressing authentic assessment as it relates to development of young children. Field experiences must be provided so that preservice teachers can experiment with observing young children and using methods to document those observations.

For teachers already working in the schools, teacher education programs, in cooperation with school districts and teachers within the district, should develop ways to help those teachers gain the necessary knowledge about alternative assessment and to support their efforts in changing from assessment methods they are currently using.

Charlesworth, a researcher in the areas of assessment and beliefs and practices of early childhood educators, believes that the only way to support practicing teachers through the process of change is to work with them individually in their classrooms over a period of time (personal communication, November 10, 1993).

Implications for Further Research

The researcher suggests several improvements for investigating the research questions presented in this study. First, the beliefs scale should be revised to include statements about more traditional assessment methods. The dichotomy of assessment belief statements on the questionnaire between standardized testing and authentic assessment appears to be a false one. Few teachers view assessment in
this manner. Most early childhood educators disregard standardized testing and view the dichotomy of assessment between traditional and alternative assessment methods. Inclusion of statements about traditional methods of assessment would give a more complete depiction about what early childhood educators believe about assessment.

The use of the Beliefs and Practices about Early Childhood Assessment Questionnaire to determine what teachers believe about assessment and what assessment methods they actually use in their classrooms may be questionable. Questionnaires have been successfully used to determine early childhood educators' beliefs and practices about other issues (Charlesworth, et al., 1993). However, the terminology which is currently used to describe assessment issues has multiple definitions. Therefore, it was difficult to control for the working definition each teacher is using when completing the questionnaire. The discrepancies found in this investigation between what teachers reported on the questionnaire and what was discovered in the interviews indicated that other research methods might be more productive in determining beliefs and practices about assessment. Multiple interviews with teachers combined with participant observation in their classrooms and analysis of documents used for assessment would provide a more accurate and richer study of the questions about early childhood educators' beliefs and practices about assessment.

Conclusions

Early childhood educators in this study used a combination of traditional and alternative assessment methods in their classrooms to
assess their students and complied with mandates regarding testing. The findings of this investigation indicated that while teachers are beginning to make changes in their classroom decisions about assessment, any major change in educational practices takes time as well as substantial training and support for teachers trying to implement the change. Further study of early childhood educators' beliefs and practices about assessment will assist researchers in understanding the complex nature of the relationships between teachers' beliefs and their classroom practices and those factors which influence these beliefs and practices.
APPENDIX A

RESEARCH PERMISSION PROPOSAL
Dissertation Topic Proposed *
by Deborah Diffily

* The name of the independent school district receiving this research proposal has been replaced with a pseudonym.

Working Title:

Early Childhood Educators' Beliefs and Practices about Assessment

Purpose of the Research:

This research study will examine the assessment beliefs and practices of all kindergarten, first grade, and second grade teachers in the Livingston Independent School District. Two opposing trends can be seen in the area of assessment in education today. First, standardized testing is being used with increasing frequency and carrying more importance in decisions about placement of and programming for young children. Opposing this trend are educators who believe that standardized testing cannot meet the needs of individual schools, classrooms, or children; therefore, they encourage more authentic methods of assessment which integrate instruction and assessment. The degree to which teachers believe in one of these assessment trends affects their practices, although there are frequent inconsistencies between teachers' beliefs and practices.

This study will be conducted in two phases. The first phase, using quantitative methods, will identify early childhood educators' self-reported assessment beliefs and practices. Simply stated, what do they believe about assessment and what assessment methods do they use in their classrooms. The second phase, using qualitative methods, will attempt to determine, through observation and interview, the relationships between questionnaire answers and actual classroom practices for approximately 10% of the research population.

Research Procedures:

A questionnaire consisting of 15 statements about assessment beliefs and 15-20 statements about assessment practices will be mailed to all Livingston ISD teachers of kindergarten, first-grade, and second-grade classes. Teachers will be asked to indicate the statement that most closely reflects their own beliefs and practices on a seven-point Likert-
scale and return the questionnaire to the researcher. The questionnaire will require less than 30 minutes to complete, and a self-addressed, stamped envelope will be provided.

After data analysis, approximately 10% of the teachers will be contacted for permission for researchers to observe in their classrooms for three hours and to interview them for approximately one hour after school hours. Only teachers who indicate an interest in further research on the original questionnaire will be contacted. The name of the school, school district, city, and all individuals will remain anonymous. Within the dissertation, pseudonyms will be used.

Time Requirements:

With the permission of the Livingston ISD Department of Research and Development, an introductory letter will be mailed to principals on August 1, explaining the research project and the benefits to those who agree to participate.

The first mailing of questionnaires will be Friday, September 3. A second mailing to nonrespondents will be Friday, September 17. Data will be analyzed as questionnaires are received. A sample of teachers who indicated their willingness to participate in further research will be contacted and classroom observations and after-school interviews will be conducted between September 29 and October 15.

Upon completion of the research, a summary of findings will be presented to the Livingston ISD Department of Research and Development and to interested principals.

Financial Requirements:

Livingston ISD will not be expected to provide any funds to support this research project. The researcher will assume the cost of mailing all questionnaires to the elementary schools. The researcher will also assume the cost of providing position statements and brochures about assessment from National Association for the Education of Young Children and the Southern Early Childhood Association to all teachers who return the questionnaire and a book about portfolio assessment to all teachers who agree to be observed in their classrooms and interviewed after school hours.
APPENDIX B

DEMOGRAPHIC INFORMATION
BELIEFS AND PRACTICES ABOUT EARLY CHILDHOOD ASSESSMENT
QUESTIONNAIRE
BELIEFS AND PRACTICES ABOUT EARLY CHILDHOOD ASSESSMENT
QUESTIONNAIRE

(Confidentiality of the respondent is guaranteed. No names of respondents or schools will be used in any reporting of the findings from this study.)

1. Date: __/__/___

2. Circle Gender: Male  Female

3. Age: ___

4. Ethnicity: ________________

5. Grade Level Currently Taught: PreK  K  1  2  3

6. Check Certificates Currently Held: Elementary ___
   Early Childhood ___
   Kindergarten Endorsement ___
   English as Second Language ___
   Gifted and Talented ___

7. Educational Background:

   Institution

   Major

   ________________________________

   ________________________________

   ________________________________

   Earned In Progress

8. Highest Degree:

   Bachelors ________________________________
   (date)

   Masters ________________________________
   (date)

   Doctorate ________________________________
   (date)

9. Have you attended a workshop or seminar on assessment in the past two years? Yes ___ No ___ If so, when was the most recent one? ________________ (date)
10. How many years have you taught? ____

11. How many years have you taught in your current building? ____

The second phase of this research will consist of a tape-recorded interview with individual teachers. Would you be willing to participate in the second phase of this research? ____ Yes ____ No

Revised by Deborah Diffily from Beliefs about Early Childhood Assessment Questionnaire (January, 1993) developed by Pamela O. Fleege, Dean K. Frerichs, Deborah Diffily, & Jill Fox, University of North Texas.
APPENDIX C

TEACHER BELIEFS SCALE
QUESTIONNAIRE, SCALE I
TEACHER BELIEFS SCALE

Directions: Circle the value that indicates the degree to which you agree or disagree with each statement. Values 1, 2, and 3 indicate disagreement with the statement (1 indicates the strongest level of disagreement). Values 5, 6, and 7 indicate agreement with the statement (7 indicates the strongest level of agreement). Value 4 indicates that you neither agree nor disagree with the statement.

KEY: 1 = Strongly Disagree
     4 = Neutral
     7 = Strongly Agree

1. Assessment is important to the learning process of young children. 1 2 3 4 5 6 7
2. A standardized test is the best measure of a young child's learning. 1 2 3 4 5 6 7
3. Observation of young children in their day-to-day activities is the best measure of a young child's learning. 1 2 3 4 5 6 7
4. The results of a national standardized test can help early childhood teachers as they plan curriculum. 1 2 3 4 5 6 7
5. The informal draw-a-man test gives educators valuable information about a young child's cognitive development. 1 2 3 4 5 6 7
6. Young children should be placed in appropriate environments based on the results of screening and placement testing. 1 2 3 4 5 6 7
7. Classroom curriculum and assessment are most effective if separated. 1 2 3 4 5 6 7
8. Young children should be placed in special programs based on a single test score. 1 2 3 4 5 6 7
KEY: 1 = Strongly Disagree  
4 = Neutral  
7 = Strongly Agree  

9. Portfolio assessment is the best measure of a young child's learning.  
   1  2  3  4  5  6  7

10. The classroom teacher is the most qualified person to assess young children's learning.  
    1  2  3  4  5  6  7

11. A collection of a child's work and teacher observations can help early childhood teachers as they plan curriculum.  
    1  2  3  4  5  6  7

12. Classroom curriculum and assessment are most effective if integrated.  
    1  2  3  4  5  6  7

13. Placement of young children in special programs should be determined using a battery of test scores as well as observations.  
    1  2  3  4  5  6  7

14. The school district diagnostician is most qualified person to assess young children's learning.  
    1  2  3  4  5  6  7

15. The learning of young children is not enhanced by utilizing assessment results.  
    1  2  3  4  5  6  7

16. It is important to use observations and interviews as the basis of assessing the progress of young children.  
    1  2  3  4  5  6  7

17. Only results from school district's standardized testing program should be used to assess the progress of young children.  
    1  2  3  4  5  6  7
18. Classroom teachers do not need training how to interpret test scores.
   1 2 3 4 5 6 7

19. Standardized test scores should be used to assign "grades" reflecting the learning progress of young children.
   1 2 3 4 5 6 7

20. In areas that are difficult to measure by traditional tests, only alternative assessment procedures should be used to determine young children's progress.
   1 2 3 4 5 6 7
APPENDIX D

ASSESSMENT ACTIVITIES SCALES

QUESTIONNAIRE, SCALE II
Non-Standardized Methods of Assessment

KEY: 0 = Never Use
1 = Almost Never (Less than monthly)
4 = Frequently (At least every other week)
7 = Very Often (Daily)

For LANGUAGE ARTS

1. End of the chapter tests    0 1 2 3 4 5 6 7
2. End of the book tests      0 1 2 3 4 5 6 7
3. Checklists                0 1 2 3 4 5 6 7
4. Rating scales             0 1 2 3 4 5 6 7
5. Teacher-made tests        0 1 2 3 4 5 6 7
6. Timed skills tests        0 1 2 3 4 5 6 7
7. Writing prompts           0 1 2 3 4 5 6 7
8. Anecdotal records         0 1 2 3 4 5 6 7
9. Interviews                0 1 2 3 4 5 6 7
10. Performance-based tasks  0 1 2 3 4 5 6 7
11. Teacher observation      0 1 2 3 4 5 6 7
12. Portfolio assessment     0 1 2 3 4 5 6 7
13. Children's journals      0 1 2 3 4 5 6 7
14. Graded Worksheets        0 1 2 3 4 5 6 7
15. Scope and Sequence Skills Lists 0 1 2 3 4 5 6 7
16. Spelling tests           0 1 2 3 4 5 6 7
17. Art work                 0 1 2 3 4 5 6 7
18. Audio and/or video tape  0 1 2 3 4 5 6 7
19. Student self-assessment  0 1 2 3 4 5 6 7
20. Family surveys           0 1 2 3 4 5 6 7
Non-Standardized Methods of Assessment

KEY: 0 = Never Use
1 = Almost Never (Less than monthly)
4 = Frequently (At least every other week)
7 = Very Often (Daily)

For MATH/SCIENCE

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Non-Standardized Methods of Assessment

KEY: 0 = Never Use  
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For BEHAVIOR AND/OR SOCIAL EMOTIONAL DEVELOPMENT

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<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>16. Spelling tests</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>17. Art work</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>18. Audio and/or video tape</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>19. Student self-assessment</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>20. Family surveys</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
APPENDIX E

STUDY POPULATION BY SCHOOL AND GRADE LEVEL
<table>
<thead>
<tr>
<th>School</th>
<th>Pre-K</th>
<th>K</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Georgetown</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>19</td>
</tr>
<tr>
<td>McIntyre</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>Porter</td>
<td>1</td>
<td>4</td>
<td>13*</td>
<td>4</td>
<td>13*</td>
<td>35</td>
</tr>
<tr>
<td>Kellerman</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Gunnington</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>21</td>
</tr>
<tr>
<td>Berryman</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>Parkville</td>
<td>14</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
<td><strong>18</strong></td>
<td><strong>42</strong></td>
<td><strong>30</strong></td>
<td><strong>36</strong></td>
<td><strong>143</strong></td>
</tr>
</tbody>
</table>

* First/second teachers at Porter are included in the first grade total. Third/fourth teachers at Porter are included in the third grade total.
APPENDIX F

RESPONDENTS BY SCHOOL
Respondents by School

<table>
<thead>
<tr>
<th>School</th>
<th>Number of Teachers</th>
<th>No./% Teachers Who Returned the Questionnaire</th>
<th>No./% Teachers Who Were Interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Georgetown</td>
<td>19</td>
<td>8 - 42%</td>
<td>1 - 5%</td>
</tr>
<tr>
<td>McIntyre</td>
<td>17</td>
<td>13 - 76%</td>
<td>1 - 9%</td>
</tr>
<tr>
<td>Porter</td>
<td>35</td>
<td>22 - 66%</td>
<td>6 - 17%</td>
</tr>
<tr>
<td>Kellerman</td>
<td>16</td>
<td>4 - 25%</td>
<td>1 - 6%</td>
</tr>
<tr>
<td>Gunnington</td>
<td>21</td>
<td>11 - 52%</td>
<td>2 - 10%</td>
</tr>
<tr>
<td>Berryman</td>
<td>18</td>
<td>11 - 61%</td>
<td>0 - 0%</td>
</tr>
<tr>
<td>Parkville</td>
<td>17</td>
<td>11 - 41%</td>
<td>1 - 9%</td>
</tr>
</tbody>
</table>
REFERENCE LIST


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Meisels, S. J. (1987). Uses and abuses of developmental screening and school readiness testing. Young Children, 42(2), 4-9


Putnam, L. (1983). A descriptive study of two philosophically different approaches to reading readiness as they were used in six inner city kindergartens. (ERIC Document Reproduction Service No. ED 220 807).


