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ABSTRACT

This is a report of a statewide study of kindergarten practices in North Carolina in 1988 which involved classroom observations (N=103 randomly selected classrooms) and questionnaires returned by 218 elementary school principals (an 86% response) and by 375 kindergarten teachers (an 81% response). Several questions were addressed by the study. (1) Are North Carolina kindergartens being taught in a developmentally appropriate manner? (2) Are certain aspects of kindergarten emphasized more than others or taught more appropriately? (3) What is the relationship of kindergarten classroom quality to various teacher, principal, and school characteristics? (4) How frequently and for what reasons does kindergarten retention occur? (5) What are the obstacles to developmentally appropriate kindergarten instruction? (6) What avenues are available to help improve kindergartens? The five main sections of the report cover kindergarten history and research; the study methodology; results; discussion of the results and their implications for kindergarten in North Carolina; and recommendations for action. Citations number 29. Numerous appendices include a list of the members of the study's advisory board; items from the Early Childhood Environment Rating Scale; a checklist of kindergarten activities; teacher interviews; the Attitude to School Questionnaire; related letters; elementary school principal and teacher questionnaires; questionnaire codes; and descriptions of hypothetical classrooms. (RH)

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Best Practices for Beginners: Quality Programs for Kindergartners

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BEST PRACTICES FOR BEGINNERS: QUALITY PROGRAMS FOR KINDERGARTNERS

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March 1989

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Best Practices for Beginners: Quality Programs for Kindergartners

This is a report of a statewide study of kindergarten practices in North Carolina in 1988. The reasons for this study were an increasing concern about the developmental appropriateness of kindergarten, an increasing use of retention in kindergarten, and an increasing tendency for parents to delay kindergarten entry for their eligible children.

This study was commissioned by the Education Subcommittee of the Joint Legislative Commission on Governmental Operations. The study was conducted by researchers at the Frank Porter Graham Child Development Center, Donna Bryant, Richard Clifford, and Ellen Peisner. This report is divided into five main sections: (1) a review of kindergarten history and research, (2) the methods by which we conducted the study, (3) the results, (4) a discussion of the results and their implications for kindergarten in North Carolina, and (5) recommendations for action.

Kindergarten History and Research

Kindergarten was started in Germany in 1837 by Friedrich Froebel (1782-1852), a philosopher and educator. About 1840 Froebel first gave the name of "Kindergarten" to his school at Blankenburg, where he taught young children between 3 and 7 years of age. The word kindergarten literally means "children's garden," which hints at Froebel's philosophy of educating body, mind, and soul through play, outdoor experiences, music, movement, spontaneity, creativity, and independence. In his own words, the purpose of kindergarten was:

> To take the oversight of children before they are ready for school life, to exert an influence over their whole being in correspondence with its nature; to strengthen their bodily powers; to exercise their senses; to employ the awakening mind; to make them thoughtfully acquainted with the world of nature and of man; to guide their heart and soul in a right direction, and lead them to the Origin of all life. (Barnard, 1881, p. 91).

To accomplish this, he believed that after the age of three, children should be placed under the influence of a properly trained teacher for a portion of the day. Froebel differed

in this view from his mentor Pestalozzi, who thought that the mother, the natural educator of the child, ought to retain sole charge up to the sixth or seventh year.

Froebel wrote music, plays, stories, riddles, and games for his kindergartners. He also developed a series of ten objects and exercises, which he called Gifts--the first kindergarten "curriculum": six different colored woolen balls to teach similarity, discriminations and perception; a wooden sphere, cube, and cylinder to teach time, space, form, and motion; a large cube divisible into eight smaller cubes to teach relationships and elementary mathematical principles; and seven others. (Milton Bradley first manufactured these "gifts" for the commercial market in 1871, and remained committed to the kindergarten cause even though these initial curriculum materials were a financial failure. His manual for the use of the materials eventually became a best-seller.)

Froebel's kindergarten philosophy gained widespread acceptance among educated Germans in the 1800's, but in 1851, a year before Froebel's death, Prussian authorities banned kindergarten as a subversive influence. Perhaps they confused Froebel the educator with his politically active nephew, or perhaps they feared the freedom implied by Froebel's educational philosophy. Although the interdict was cancelled in 1860, it had damaged the progress of kindergarten in official German circles. In the meantime, nevertheless, the kindergarten movement had spread to England, France, Holland, Italy, and America.

Kindergarten in the United States

The first American publication of Froebel's ideas was a pamphlet issued in 1856 by the American Journal of Education. That same year the first kindergarten was opened in Watertown, Wisconsin by Margarethe Schurz, a student of Froebel's from Germany. Schurz started the kindergarten, conducted in German, for her own young daughter and the children of friends, and other kindergartens soon followed.

In Boston 3 years later, Schurz met Elizabeth Peabody. Already an advocate of education, Peabody was so impressed with the conduct and abilities of Schurz' daughter that she became a "kindergarten convert" (Jenkins, 1930, p. 7). She opened the first English-speaking kindergarten in Boston in 1860, and was the primary person responsible for publicizing the movement and organizing the first teacher training center for kindergarten teachers in the U.S.

Although she helped open several charity kindergartens in Boston, Peabody was unsuccessful in starting public kindergarten there because of funding shortages. She did convince the Superintendent of the St. Louis Public Schools

to open the first public school kindergarten in 1873, eventually overcoming his excuses about hot weather and lack of space and money. This kindergarten was taught by Susan Blow, a young woman who had studied with Froebel's widow. Within 6 years there were 53 kindergarten classes in St. Louis. By the 1880's there were hundreds of kindergartens in public schools throughout the United States (Ross, 1976).

Henry Barnard, the U.S. Commissioner of Education at that time, was a strong proponent of the kindergarten movement. From 1855-1880, while serving as editor of the American Journal of Education, he published several papers enthusiastically supporting kindergarten (Barnard, 1881).

In the late 19th and early 20th centuries, kindergartens were often included in settlement houses to benefit children and their mothers. The Women's Christian Temperance Union added a kindergarten department to develop moral strength in children. In San Francisco, the Silver Street Kindergarten and the Jackson Street Free Kindergarten became models of large charity kindergarten systems operating in slum areas. Parent cooperation was emphasized and kindergarten teachers saw their role as strengthening family relationships. Since classes were only held in the mornings, afternoons were spent making home visits and conducting parent meetings. The rapid growth of the kindergarten movement during those early years was a testament to the great value placed on the education of young children, and also to the hopes of many that kindergarten could be an agent of social reform.

In the process of joining the public schools, however, kindergartens lost some of their old identity. First-grade teachers complained that children coming into their classes from kindergarten could not pay attention unless they were entertained and could not follow directions. Many kindergarten teachers succumbed to the "tyranny of the primary teacher" (Hill, 1900, p.48) and concentrated more on discipline and neatness. Although this tension was troublesome, it also fostered positive changes: cooperation between kindergarten and first-grade teachers, the common belief that kindergarten and primary content should be coordinated, and some relaxation of the rigid first-grade routines.

Even as kindergarten was growing, educators began debating the appropriateness of the methods in vogue, including Froebel's rigidly prescribed use of materials, Montessori's structured procedures, and G. Stanley Hall's scientific approach to child behavior. During this period of conflict in the early 1900's, Patti Smith Hill, a former kindergarten teacher and a professor at Teachers College, Columbia University, was one of the strongest advocates for kindergarten. She proposed a curriculum that was relevant

and child-focused, allowing for initiative and creativity. She encouraged the use of climbing equipment and materials promoting gross-motor development rather than the fine-motor emphasis of the Froebel kindergarten. Hill also advocated the combination of kindergarten and first grade in order to lessen the academic emphasis of first grade, not to increase the academic focus of kindergarten. She believed that first-graders should also be given the opportunity for creative and self-chosen activities before beginning the basics of reading and arithmetic--a prophetic suggestion in the 1930's (Rudolph & Cohen, 1984).

As with many new movements, the rigidity necessary to validate the early programs was relaxed as kindergarten became more well-established in the mid-1900's. Froebel's precise system was interpreted more loosely, new materials were brought into use, and experimentation became more acceptable. Kindergarten teachers, by and large, focused on the whole child and the active process of learning by doing. They encouraged self-expression, and helped children learn to get along, play games, sing songs, and have fun learning. Despite the conflict within the kindergarten movement, all kindergartens, whether traditional (Froebelian) or progressive, brought new ideas to the elementary school.

In the 1960's, the schools came under pressure to change. The launch of Sputnik caused educators to question math and science training. Why Johnny Can't Read caused them to question language training. The country became concerned over the economic, social, and educational problems of the poor. This pressure particularly affected kindergarten since research in the field of early childhood had begun to show a relationship between preschool or early school experiences and later academic success. As in the late 1800's, kindergarten was again expected to be an agent of social reform.

In an attempt to help poor children "catch up," many kindergartens became watered-down versions of first grade. Others adopted new technologies or procedures such as the Bereiter-Engelman direct verbal instruction method or behavior modification, or revived older ones such as the Montessori school. Many methods and theories have come and gone, yet none has been "proven" to be the best for kindergartners. The often unasked question is "Best for what?" For socializing young children? For teaching the 3 R's? For getting ready for first grade? For eradicating poverty and illiteracy? For stimulating creativity and independence? As this historical review has summarized, over the years kindergarten has been called upon to do all of these tasks. It still is.

Kindergarten in North Carolina

For her master's thesis at the University of North Carolina in 1929, Edna Edmonds attempted to survey all kindergartens in North Carolina. She received responses from 36 of the 50 teachers known to be teaching kindergarten. The majority of them had no proper training; only six had kindergarten diplomas; nine had bachelor's or master's degrees. Thirty of the 36 classes were open from 7-9 months a year, and most were half-day. The tuition per pupil ranged from nothing up to $11 per month. Single kindergarten classes were being conducted in 23 towns such as Wilson, Chapel Hill, and Statesville. Greensboro and Charlotte each had two kindergarten classes, and Raleigh had three. All of these were privately supported classes. Surprisingly, Asheville had 10 kindergarten classes conducted within the public schools.

The first Asheville kindergarten began in 1892, founded by "the public spirited ladies of Asheville (to be conducted) in the poorer sections of the city in order to care for the children while their mothers were away from home at work." (Edmonds, 1929, p. 11) By 1907 they had grown to four classes, maintained and operated by private subscriptions. After the death of one of its most liberal benefactors, the Asheville Free Kindergarten Association requested that the school system assume control of the kindergartens. Once the school committee consented, State Senator Charlie Webb had the Legislature enact a law that allowed for the public conduct of kindergartens in the city of Asheville. This bill was passed on February 25, 1907, marking the first legislative involvement in kindergartens in North Carolina.

Over the next 40 years, the number of kindergartens increased, and interest in state-supported programs grew among parents and educators. In 1969 the North Carolina General Assembly passed legislation establishing public kindergartens in several districts in the state. State-wide programs were phased in over a 7-year period so that full school day kindergarten was available to all eligible pupils by the fall of 1976. A substantial training program was created to increase the quite limited supply of teachers educated to work with 5-year-olds. Guidance was provided to local districts based upon a set of pilot programs which preceded the full implementation of kindergarten. Studies conducted in the mid-1970's compared the academic achievement in later grades of children from the pilot kindergartens with children who had not attended kindergarten (North Carolina Department of Public Instruction, 1975). These studies clearly documented kindergarten's value for young children in North Carolina.

Current Concerns About NC Kindergartens

While the kindergarten program has clearly demonstrated its worth, increasing concern about the adequacy of kindergarten has been expressed. This concern centers on the developmental appropriateness of kindergarten practices for the children being served. There is evidence that the focus of kindergarten has changed from what was originally envisioned and established.

In the 1975-76 school year, the retention rate for kindergartens was 0.5%; by 1981-82 the rate had increased to 4.3%; and by 1984-85 to 5.9%. During that same period the first grade retention rate stayed relatively more stable, from 7.3% (1975-76) to 9.4% (1981-82) to 9.2% (1984-85) (North Carolina Board of Education, 1986). Thus, the increase in kindergarten retentions has not been a matter of simply retaining children in kindergarten rather than in first grade. More children are failing this first, important year of school.

The last major study of kindergartens in North Carolina was conducted in 1983 by the North Carolina Association for the Education of Young Children. This study concluded that most kindergarten classrooms were adequately equipped, that there was a major shift between kindergarten and first grade in both materials and teaching practices, and that parents and principals believed that social skills should be emphasized in kindergarten as well as basic cognitive skills. A comparison of teachers' attitudes in 1974 and 1983 showed changes in their beliefs about what constitutes effective kindergarten teaching, with less emphasis on child choice and more emphasis on teacher direction (NCAEYC, 1983).

National Concerns About Kindergarten

These concerns about kindergarten are not restricted to North Carolina. Current national concerns about kindergarten focus on the developmental appropriateness of what is being taught and how it is being taught. The state of California recently established a School Readiness Task Force to study such issues (California State Department of Education, 1988). In Oregon principals and teachers have been surveyed regarding their opinions about kindergarten (Oregon Department of Education, 1986). In response to these kinds of concerns, the National Association for the Education of Young Children, a major national organization of early childhood educators, felt the need to identify developmentally appropriate practices (Bredekamp, 1986). Their position statements on appropriate kindergarten practices were developed through consultation with a wide range of educators, psychologists, researchers, and specialists. Recommendations include the areas of

curriculum, adult-child interactions, relations between the home and school, and developmental evaluation of children.

The NAEYC guidelines also suggest that an integrated curriculum providing for physical, emotional, social, and cognitive development is best for kindergartners. Learning is promoted through free play when children can choose from many different materials and activities. Development is enhanced if classrooms are child-focused, well-organized, and taught in a facilitative rather than didactic manner (Howes & Olenick, 1986; McCartney, 1984). High-quality classrooms are those in which teachers interact with children in a responsive and informative way (Clarke-Stewart & Gruber, 1984). Programs with highly trained teachers and close supervision by experts are more effective (McKey, et al., 1985).

These characteristics that constitute a good kindergarten classroom are well-known, and recommendations based on these findings have gained widespread theoretical acceptance. However, translating these recommendations into actual classroom practices has been more difficult to achieve. The National Association of Early Childhood Specialists in State Departments of Education recently issued a position statement on Unacceptable Trends in Kindergarten Entry and Placement (1987). This report highlights trends toward: "(1) inappropriate uses of screening and readiness tests, (2) denial or discouragement of entrance for eligible children, (3) the development of segregated transitional classes for children deemed unready for the next traditional level of school, and (4) an increasing use of retention" (p. 2).

One response to these concerns has been a growing trend for parents to voluntarily defer kindergarten entrance for their children. Several states have recently modified the age of entry to require children to be somewhat older before beginning kindergarten. This response represents a misunderstanding of the research regarding the effects of age of entry on the success of pupils in school. Numerous studies consistently document the fact that the youngest children in a group perform less well on standardized tests and are somewhat more likely to be retained in grade (Uphoff and Gilmore, 1986).

Some difference in grade-level achievement tests is expected since scores are not adjusted for age of the child. On average, a child aged 5 years, 11 months will know more than a child aged 5 years, 1 month, simply because of more experience in the world. This 10-month difference in age has given the older kindergartner 16% more time since birth to gain knowledge and skills. The magnitude of this difference decreases as the children grow older and the relative difference in age decreases. By graduation from

high school, this difference in age is less than 5% of the child's life.

While individual parents may correctly decide that their young child would score better on achievement tests in school if entry were delayed, Bredekamp and Shepard (1989) argue that the decision to change age of entry for all children misses the point completely. The result of such a change would simply be to have a different group of children perform less well on the achievement tests. This analysis is supported by earlier research on first-graders before kindergartens were available. Children entering first grade directly were found to have the same patterns of achievement by age as more recent studies of kindergarten children (Miller & Norris, 1967).

In response to all of these concerns about the appropriateness of kindergarten classes, the increasing retention rate, and questions about age of entry, the 1987 session of the North Carolina General Assembly called for a study of kindergartens in the state.

Based on the literature cited above, we developed a model depicting the relationship between three classes of variables as shown below: (1) background and situational variables, (2) classroom procedures, and (3) child outcomes.

Background and Situational Variables	Appropriate Classroom Procedures	Positive Child Outcomes
-teacher preparation in early childhood	-child-focused & child choices allowed	-adequate developmental progress
-teacher belief in learning through play and child-choice vs structured academic activities	-appropriate activities with emphasis on learning through play	-positive attitudes toward school, teachers, learning, and self
-principal support for developing appropriate kindergarten	-activities developmentally suited to 5-year-olds	-enhanced and cooperative social skills, less aggression
-adequate space and materials	-environment structured for active exploration and interaction	-improved attention span
	-range of ability, development and learning style accepted	

We presume that appropriate classroom procedures for kindergartners are related to certain background and situational variables, and that more positive child outcomes

result from more developmentally appropriate classrooms. Specific relationships among these variables are not well-documented. In this study we attempted to tap as many of these domains as possible in order to identify determinants and outcomes of developmentally appropriate kindergarten.

Major questions to be answered in this study are:

(1) Are North Carolina kindergartens being taught in a developmentally appropriate manner? If not, what is the extent of the problem?

(2) Are different aspects of kindergarten emphasized more than others, or taught more appropriately? How is development encouraged in the areas of social skills, motor development, language interaction, creativity, and self-help? Are some areas better addressed than others?

(3) What is the relationship of kindergarten classroom quality to various teacher, principal, and school characteristics? Are education, experience, or attitudes related to classroom practices? Do classes differ by region or school size?

(4) How frequently and for what reasons is kindergarten retention occurring?

(5) What are the obstacles to developmentally appropriate kindergarten instruction and what avenues are available to help improve kindergartens?

METHOD

This study involved the collection of data from three major sources: 1) Visits to a random sample of kindergarten classes in North Carolina, 2) Questionnaires sent to a random sample of principals of N.C. public schools housing kindergarten classes and principals of the schools visited, and 3) Questionnaires sent to a random sample of kindergarten teachers and also to the teachers in the sample classrooms visited. Each of the components of the data collection is discussed in this section. Table 1 provides an overview of the data collected.

Early in the conduct of this study we established an advisory board consisting of public school personnel involved in operating kindergartens, university faculty engaged in training kindergarten teachers, and others involved in public policies affecting kindergartens. (A list of advisory board members is contained in Appendix A.) The board played an important role in helping to shape the design of the study, the instruments, and our analysis and interpretation of the results.

Classroom Visits

The classroom visits involved two observational measures, the Early Childhood Environment Rating Scale (Harms & Clifford, 1980) and the Checklist of Kindergarten Activities, plus a Teacher Interview, and the Attitude to School Questionnaire completed by students.

Sampling Plan

Observations of 112 kindergarten classrooms were conducted during the Spring and Fall of 1988. The sampling plan was established in consultation with the Controller's Office in the State Department of Public Instruction. That office provided a computer tape which contained a list of all kindergarten classes in North Carolina during the 1987-1988 school year. A computer list of randomly generated numbers was used to select classrooms to be observed. These classes were sampled in proportion to the statewide distribution of kindergarten children by two variables: Region of the State (West, Piedmont, and East), and School Size (Small, Medium, and Large).

Regions of the state were defined in consultation with the Office of State Budget and Management. As shown in Figure 1, state planning regions A-E constituted the West region, regions F-K (minus Johnston county) formed the Piedmont region, and regions L-R (plus Johnston) formed the East region. School size was defined as follows: Small=Average Daily Membership (ADM) of less than 300, Medium=ADM of 300-599, and Large=ADM of 600 or greater.

Table 1

Overview of Kindergarten Project Data

	Observation and Survey				Survey
	Spring Random	Spring Exemplary	Fall Random	Fall Exemplary	General Random
Early Childhood Environment Rating Scale	N=53	N=5	N=50	N=4	X
Checklist of Kindergarten Activities	N=53	N=5	N=50	N=4	X
Teacher Interview	N=53	N=5	N=50	N=4	X
Attitude to School Questionnaire	N=1209	N=132	X	X	X
Teacher Questionnaire	N=47/53 (89%)	N=5/5 (100%)	N=46/50 (92%)	N=4/4 (100%)	N=275/355 (77%)
Principal Questionnaire	N=47/53 (89%)	N=4/4 (100%)	N=46/50 (92%)	N=4/4 (100%)	N=125/150 (83%)

Figure 1

NORTH CAROLINA

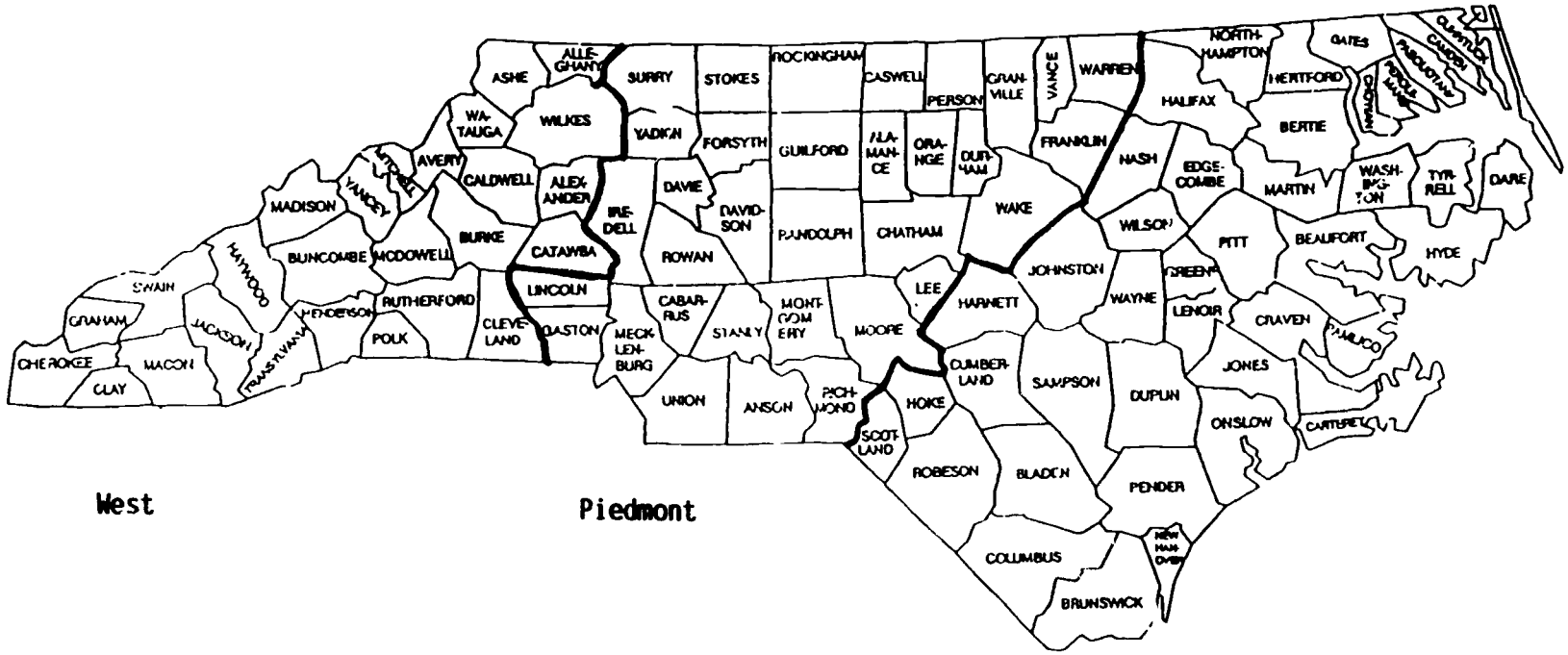


Table 2 contains the distribution of kindergarten children by region and school size, as reported by the Controller's Office for 1987-1988. This sampling plan was chosen in order to investigate possible regional differences in kindergartens or differences related to overall size of the school.

Two additional conditions were placed on random selection: 1) no more than two schools were chosen from a single Local Education Agency (LEA), and 2) no more than one class was chosen from a single school. If either of these two conditions was not met, the next class on the random list was selected. The effect of these two restrictions was to increase the range of districts and schools included in the observation sample. At the same time this procedure had the effect of decreasing sample representation of large districts and schools with many kindergarten classes. Furthermore, if a selected teacher was no longer teaching kindergarten, was teaching a K-1 class with more than 1/3 first-graders, or chose not to participate, then another teacher from that school was randomly chosen. If no other teacher was available, then the next school on the random list was chosen. This plan ensured that a representative cross-section of schools was included in the study.

In the spring, 53 classrooms from the random sample were observed during the month of May and the first week of June, 1988, as shown in Table 3. Note that the distribution of observed classes closely matches the distribution of kindergarten children as shown in Table 2. Only one school selected in the initial random sample chose not to participate because they were already involved in another research project.

In addition, five classrooms identified by Department of Public Instruction staff as exemplary kindergartens were observed during the spring, in order to assure that some examples of developmentally appropriate practices would be seen. The region and size distribution of these exemplary classes included one from a Western Medium-sized school, one from a Western Large school, and three from Eastern Large schools. (Note that two of the exemplary classrooms visited in the spring were at the same school.)

In the fall, another 50 randomly chosen kindergarten classes were observed during the months of October and November, and the first week of December, 1988. Table 4 presents the distribution of those classes by region and school size. One additional restriction placed on the selection of the fall random sample was that no classrooms were chosen from schools visited in the spring. Four schools selected in the initial random sample chose not to participate in the study, and were replaced with others from the random list.

Table 2

Distribution of Kindergartners in North Carolina
1987-1988

Region	Size of School			Row Totals
	Large	Medium	Small	
West	3306	7252	2676	13,234
	3.9%	8.7%	3.2%	15.8%
Piedmont	14,317	23,273	3960	41,550
	17.1%	27.8%	4.7%	49.6%
East	11,923	14,164	2961	29,048
	14.2%	16.9%	3.5%	34.7%
Column Totals	29,546	44,689	9597	83,832
	35.2%	53.3%	11.5%	100%

Table 3

Distribution of Kindergarten Classes in Spring Sample

Region	Size of School: Large	Medium	Small	Row Totals
West	2 3.8%	5 9.4%	2 3.8%	9 17.0%
Piedmont	9 17.0%	17 32.1%	2 3.8%	28 52.8%
East	5 9.4%	9 17.0%	2 3.8%	16 30.2%
Column Totals	16 30.2%	31 58.5%	6 11.3%	53 100%

Table 4

Distribution of Kindergarten Classes in Fall Sample

Region	Size of School: Large	Medium	Small	Row Totals
West	2 4.0%	4 8.0%	2 4.0%	8 16.0%
Piedmont	9 18.0%	14 28.0%	2 4.0%	25 50.0%
East	7 14.0%	8 16.0%	2 4.0%	17 34.0%
Column Totals	18 36.0%	26 52.0%	6 12.0%	50 100%

Additionally, four more exemplary kindergarten classes were observed in the fall. These exemplary classes included one from a Piedmont Medium-sized school, two from Piedmont Large schools, and one from an Eastern Large school.

A total of 103 classes were observed in the combined spring and fall random samples. The regional and size distribution of these classes closely approximates that of all kindergartners in North Carolina, as can be seen by comparing the percentages of observed classes in each cell in Table 5 with the percentages of kindergartners in each cell in Table 2. Selecting the observation sample in this way fairly represents the types of classes in which kindergartners are enrolled across the state. For example, 17.1% of all North Carolina kindergartners attend Large schools in the Piedmont. The observation sample included a similar percentage (17.5%) of kindergarten classes from Large Piedmont schools. The observed classes do indeed accurately reflect the statewide distribution of kindergartners, and are therefore a representative sample.

Measures

Two observational measures were used to record information from the classes visited. The Early Childhood Environment Rating Scale (Harms & Clifford, 1980), a rating scale designed for preschool classes, was modified for use with kindergarten classes. This standardized instrument provides an assessment of the curriculum, environment, teacher-child interactions, and teaching practices within the classroom. This kindergarten version of the scale consists of 32 items in six subscales: Personal Care Routines, Furnishings, Language-Reasoning Experiences, Fine and Gross Motor Activities, Creative Activities, and Social Development. Each item is scored from 1 to 7, where 1 represents an inadequate situation, 3 is minimal, 5 is good, and 7 is excellent. Both the subscale scores and the total score can be converted into mean ratings between 1 and 7, corresponding to the above designations of environment quality. A list of scale items is contained in Appendix B, along with sample items from each of the subscales.

We developed a new measure, the Checklist of Kindergarten Activities, in order to obtain supplementary observational information about the activities and setting in kindergarten classes. (See Appendix C for a copy of the Checklist.) This instrument includes 32 yes/no items in the Activities subscale covering seven areas of teaching activities in the classroom (Language, Cognitive, Social, Self-regulation, Self-esteem, Disposition to Learn, and Physical), and 21 items in the Materials subscale about specific materials present in the class. The Checklist also

Table 5

Distribution of Kindergarten Classes
in Combined Fall and Spring Samples

Region	Size of School			Row Totals
	Large	Medium	Small	
West	4 3.9%	9 8.7%	4 3.9%	17 16.5%
Piedmont	18 17.5%	31 30.1%	4 3.9%	53 51.5%
East	12 11.7%	17 16.5%	4 3.9%	33 32.0%
Column Totals	34 33.0%	57 55.3%	12 11.7%	103 100%

includes six additional yes/no items about the setting and group time; three demographic items about the number of students present, enrolled, and their races; plus two open-ended questions about the most and least developmentally appropriate practices seen during the observation. The version used in the fall also added six questions about the role of the teacher's assistant.

The Teacher Interview, also designed by the project investigators, is a set of questions for gathering more extensive information directly from teachers about their concerns, the classroom environment, and the processes of teacher supervision, retention in kindergarten, and identification of children with learning problems at their school. Assessors wrote verbatim, or as close to verbatim as possible, teachers' answers to these questions which were later coded. Appendix D contains a copy of both the spring and fall versions of the Teacher Interview. The six questions on the role of teachers' assistants were included only in the fall interview, and are the same questions completed by the assessors on the Checklist of Kindergarten Activities. In addition, the questions about retention were changed slightly on the fall version, since decisions about retaining children are not made until the end of the school year.

The Attitude to School Questionnaire (Strickland, Hoepfner, & Klein, 1976) provided an objective measure of children's self-reported attitudes to various common school situations. This instrument was used only in the spring, and not in the fall because children had not been in these classrooms long enough to have accurately measurable attitudes to school. Each child was given a booklet containing pictures of 18 school-related situations with three faces (happy, neutral, and sad) below each picture. Girls received booklets with pictures and faces of female children, while boys' booklets contained male children. The classroom assessor read a description of each situation, and the child then circled the face corresponding to how he or she would feel in that situation. These responses were scored as 1 for each happy face circled, 2 for neutral, and 3 for sad. The first three items on the questionnaire are designated as practice, and were not added into the total score. The remaining 15 items were averaged into a total mean score between 1 and 3 for each child, representing overall happiness with school. A total of 1341 children (1198 in the random classes and 132 children in the exemplary classes) completed the ASQ. Eleven children who did not answer three or more of the items were excluded from the random sample. Appendix E includes a copy of the questionnaire, along with a list of the descriptions of each situation.

Observation Procedures

Two-day training sessions were held in the spring and fall in order to prepare the classroom assessors. Five assessors were recruited from across the state to conduct the observations in the spring, and six were recruited for the fall, including three returning assessors from the spring. During training the assessors and the project investigators observed kindergarten classes each morning using the Early Childhood Environment Rating Scale and the Checklist of Kindergarten Activities, and discussed the observations that afternoon. In addition, the assessors learned how to administer the Teacher Interview and the Attitude to School Questionnaire in practice sessions with the investigators.

The study coordinator visited 11 schools, one with each assessor in the spring and fall, in order to provide interrater reliability data on the two observational measures. A Pearson's correlation coefficient was calculated for the mean ECERS scores and for the total CKA scores. Interrater reliability on the ECERS was 0.97, and on the CKA was 0.95.

A letter describing the study was sent to each selected teacher, the principal of that school, and the superintendent of the district, along with a cover letter from the legislative Education Subcommittee. (Copies of these letters are contained in Appendix F.) The principal and teacher at each school were called by the study coordinator in order to answer any questions and ascertain agreement to participate. The classroom assessor then contacted the principal and teacher directly in order to schedule the observation. During these visits, assessors spent 2-3 hours in the classroom completing the Early Childhood Environment Rating Scale and the Checklist of Kindergarten Activities. In the spring, they also administered the Attitude to School Questionnaire to the students, which took 30-45 minutes. Later in the day, the assessor interviewed the teacher for 30-45 minutes in order to ask about activities she did not see that day and to conduct the Teacher Interview.

Principal Questionnaires

The second component of the data consisted of a survey of principals of schools with kindergartens using a measure we designed, the Questionnaire for Elementary School Principals. (See Appendix G.) This questionnaire was used to obtain information directly from principals about their knowledge, attitudes, and philosophies toward kindergarten.

The major topics covered in the Principal Questionnaire include:

1) The qualifications considered and difficulty of hiring kindergarten teachers
2) Knowledge of developmentally appropriate practices
3) Areas emphasized in their kindergarten program
4) Sources of influence on their kindergarten program
5) Use of discipline and children's behavior at school
6) Use of transition and pre-kindergarten / readiness classes
7) Use of standardized testing
8) Factors considered for retaining children in kindergarten
9) Services and placements used for children with special needs
10) Areas of their kindergarten program needing the most improvement
11) Most outstanding areas of their kindergarten program
12) Opinions about public programs for 4-year-olds
13) Number of kindergartners at their school
14) Demographic information about the principal.

Sampling Plan

Principal questionnaires were sent to a randomly selected sample of 150 elementary school principals, as well as the 111 principals of the observed schools. (Note that 8 principals included in the random questionnaire sample were principals of schools observed in the fall. This overlap was unavoidable since the fall observation sample was chosen after the questionnaires were distributed.) This random sample of 150 principals represents about 14% of all principals of schools with kindergartens in North Carolina. The sample was chosen by matching a computer list of all principals of schools with kindergartens in the state to a list of randomly generated numbers. Principals of schools observed in the spring were excluded from the random questionnaire sample since they were sent questionnaires as a follow-up to the spring observation. The total number of principals sampled was 253 (150 random, plus 111 from observed schools, minus 8 overlapping).

Procedures

During the month of August, questionnaires were mailed to the random sample of 150 principals, plus the 57 principals of schools observed in the spring. The 54 principals of schools visited in the fall were given the questionnaire at the time of the observation and were asked to send it back as soon as possible. The return address and postage were included on the questionnaires. A letter describing the study and a cover letter from the Education Subcommittee were sent with each questionnaire mailed out in August. Follow-up letters encouraging principals to participate, along with a second copy of the questionnaire, were sent to principals who had not yet responded one week after the initial requested return date. Similar follow-up letters were also sent in December to principals of the schools visited in the fall. (Appendix H includes copies of these letters.) Overall, 86% (218/253) of the Principal Questionnaires were returned, an extremely high return rate for survey research of this kind. For example, only 57% returned surveys in the 1983 NCAEYC kindergarten study discussed previously. Individual return rates for each sample group are reported in Table 1.

Teacher Questionnaires

The third component of the data consists of a survey of kindergarten teachers in North Carolina. The project-designed Questionnaire for Elementary School Teachers was used to obtain information about teachers' knowledge, attitudes, and philosophies about kindergarten. (See Appendix I.) Most of the questions in the Teacher Questionnaire are similar to those in the Principal Questionnaire. The major topics covered in the Teacher Questionnaire are:

1) The qualifications and experiences considered important for kindergarten teachers
2) Knowledge of developmentally appropriate practices
3) Areas emphasized in their kindergarten program
4) Sources of influence on their kindergarten program
5) Flexibility in deciding the curriculum
6) Use of discipline and children's behavior at school
7) Impact of preschool experiences on children's preparation for kindergarten
8) Use of standardized testing
9) Factors considered for retaining children in kindergarten
10) Services and placements used for children with special needs
11) Areas of their kindergarten program needing the most improvement
12) Most outstanding areas of their kindergarten program
13) Opinions about public programs for 4-year-olds

14) Number of kindergartners in their class
15) Demographic information about the teacher.

Sampling Plan

Teacher questionnaires were sent to 355 teachers chosen randomly from all kindergarten teachers in the state, as well as to the 112 teachers of classrooms observed in the spring and fall. (Note that one teacher of an exemplary class from the fall and two randomly chosen teachers from the fall observations were also included in the random questionnaire sample, since the fall observation sample was selected after the teacher questionnaire sample.) The random sample of 355 teachers represents 10% of all kindergarten teachers in North Carolina. This sample was selected by matching a computer tape containing the names of all kindergarten teachers in the state in 1987-88 with a list of randomly generated numbers. Teachers of kindergarten classes observed in the spring were excluded from the random questionnaire sample, since they were sent questionnaires as a follow-up to the classroom observation. The total number of teachers sampled was 464 (355 random, plus 112 observed minus 3 overlapping).

Procedures

Questionnaires were sent in September to the 355 teachers in the random sample and the 58 teachers of classrooms visited in the spring. The 54 teachers of kindergartens visited in the fall were given the questionnaires at the time of the observation and asked to complete them as soon as possible. The return address and postage were included on each questionnaire. A letter describing the study and a cover letter from the Education Subcommittee were sent with each questionnaire. A follow-up letter encouraging teachers to participate, along with a second copy of the questionnaire, was sent out about 1-1/2 weeks after the initial requested return date to those teachers who had not yet returned their questionnaires. A second follow-up in the form of a postcard reminding teachers to return their questionnaires was mailed about two weeks after the second requested return date. Similar follow-up letters were also sent in December to teachers from the fall observation sample. (Copies of these letters are contained in Appendix J.)

Overall, 81% (375/464) of the Teacher Questionnaires were returned. Individual return rates for each sample group are included in Table 1. Teachers move or quit teaching at the rate of approximately 10% per year. Since we were selecting teachers in the fall of 1988 from the previous school year's teacher list, the highest return rate we could have hoped to achieve was about 90%. We consider the 81% teacher return rate to be outstanding, reflecting

significant interest in the topic of kindergarten teaching, in addition to the efforts of the research team to obtain a high return rate.

RESULTS

Classroom Visits

Early Childhood Environment Rating Scale

The first series of analyses concerned data from the classroom visits in the spring and fall. The primary observational measure of the quality of kindergarten classroom environments was the Early Childhood Environment Rating Scale (ECERS). Table 6 presents the ranges, means, and standard deviations for each of the 32 ECERS items, as well as the six subscales and the overall score from the 103 randomly chosen classes. On a scale from 1 (Inadequate) to 7 (Excellent), the mean overall score was 4.26 (s.d.=0.77), and the median score was 4.28. Scores on most items varied across the full range, although a few items received no scores of 1 or 2. The subscale and total score means also covered a wide range, as shown. This wide range of scores suggests that there is a great deal of variation in the quality of kindergarten practices across the state.

A similar pattern is displayed in Figure 2, which shows the frequency distribution of total scores on the ECERS from the spring and fall random samples, with scores from the spring and fall exemplary schools noted on top in a different pattern. The exemplary schools were included in the sample to ensure that some classes with developmentally appropriate practices, indicated by high scores on the ECERS, would be seen. The range of scores for the exemplary schools, 4.56-5.84, was toward the upper end as expected. While these schools increased the number of scores above the mean, they did not increase the range of scores. Some of the random schools scored as high or higher than the exemplary schools, suggesting that good quality classrooms were observed in the random sample as well. Therefore, the random sample adequately represented the upper end of kindergarten classes as measured by the ECERS.

The mean ECERS subscale scores also varied across the different content areas, as shown in Figure 3 and also in Table 6. The highest mean score was the Fine and Gross Motor subscale (4.86, s.d.=0.76), while the lowest was Social Development (3.63, s.d.=1.20). While some subscale areas were weaker overall across the state, and may require more emphasis on improvement, none of these areas had a mean rating as high as 5 (Good) for the entire sample. The range of scores on each subscale included quite low scores, as well as scores at or near the ceiling. For example, the range on the social subscale, the lowest area overall, reached the maximum of 7 at the upper end. This variation within scales suggests that the range of quality in each area varies, although there are classes achieving scores near the top of the scale in each content area.

Table 6

Mean Scores on ECERS Items
N=103

Item	Mean	S.D.	Range
Greeting/Departing	4.01	1.93	1-7
Meals/Snacks	3.96	1.14	1-7
Nap/Rest	4.52	1.67	1-7
Toileting	2.56	1.95	1-7
Personal Grooming	3.77	1.03	1-7
Personal Care Subscale	3.77	0.82	1.60-5.80
Routine Furnishings	4.97	2.21	1-7
Learning Furnishings	3.58	1.12	1-7
Relaxation Furnishings	4.40	1.60	2-7
Room Arrangement	4.86	1.74	1-7
Child Related Display	4.26	1.00	3-7
Furnishings Subscale	4.42	1.03	1.80-6.40
Understanding Language	5.12	1.37	3-7
Using Language	4.74	1.54	2-7
Reasoning	4.50	1.43	2-7
Informal Language	4.17	1.79	1-7
Language Subscale	4.63	1.26	2.50-7.00
Perceptual/Fine Motor	5.58	1.49	1-7
Fine Motor Supervision	4.99	1.42	1-7
Gross Motor Space	4.71	1.23	3-7
Gross Motor Equipment	3.56	1.40	1-7
Gross Motor Time	4.75	1.19	3-7
Gross Motor Supervision	5.54	0.99	3-7
Motor Subscale	4.86	0.76	2.83-6.50
Art	3.12	1.85	1-7
Music/Movement	5.74	1.01	3-7
Blocks	4.34	1.75	1-7
Sand/Water	3.15	1.81	1-7
Dramatic Play	3.33	1.09	1-7
Creative Schedule	4.66	1.53	2-7
Creative Supervision	5.37	1.36	1-7
Creative Subscale	4.24	0.97	1.86-6.43
Space to be Alone	3.29	1.64	1-7
Free Play	3.33	1.92	1-7
Group Time	4.08	2.04	1-7
Cultural Awareness	2.50	1.08	1-7
Tone	4.96	1.33	1-7
Social Subscale	3.63	1.20	1.60-7.00
Overall Mean	4.26	0.77	2.44-6.25

Figure 2

MEAN ECERS SCORE
112 CLASSES

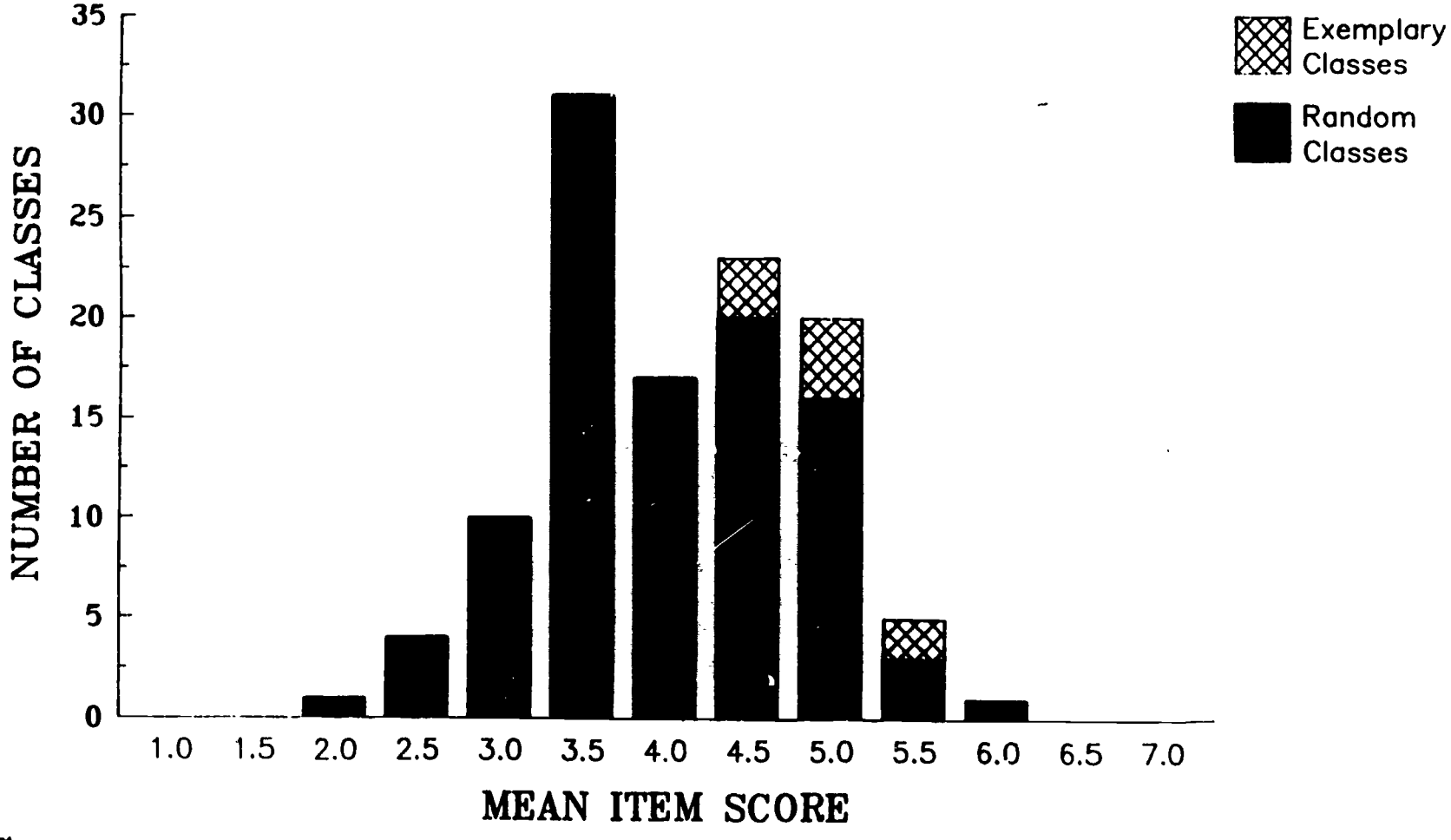
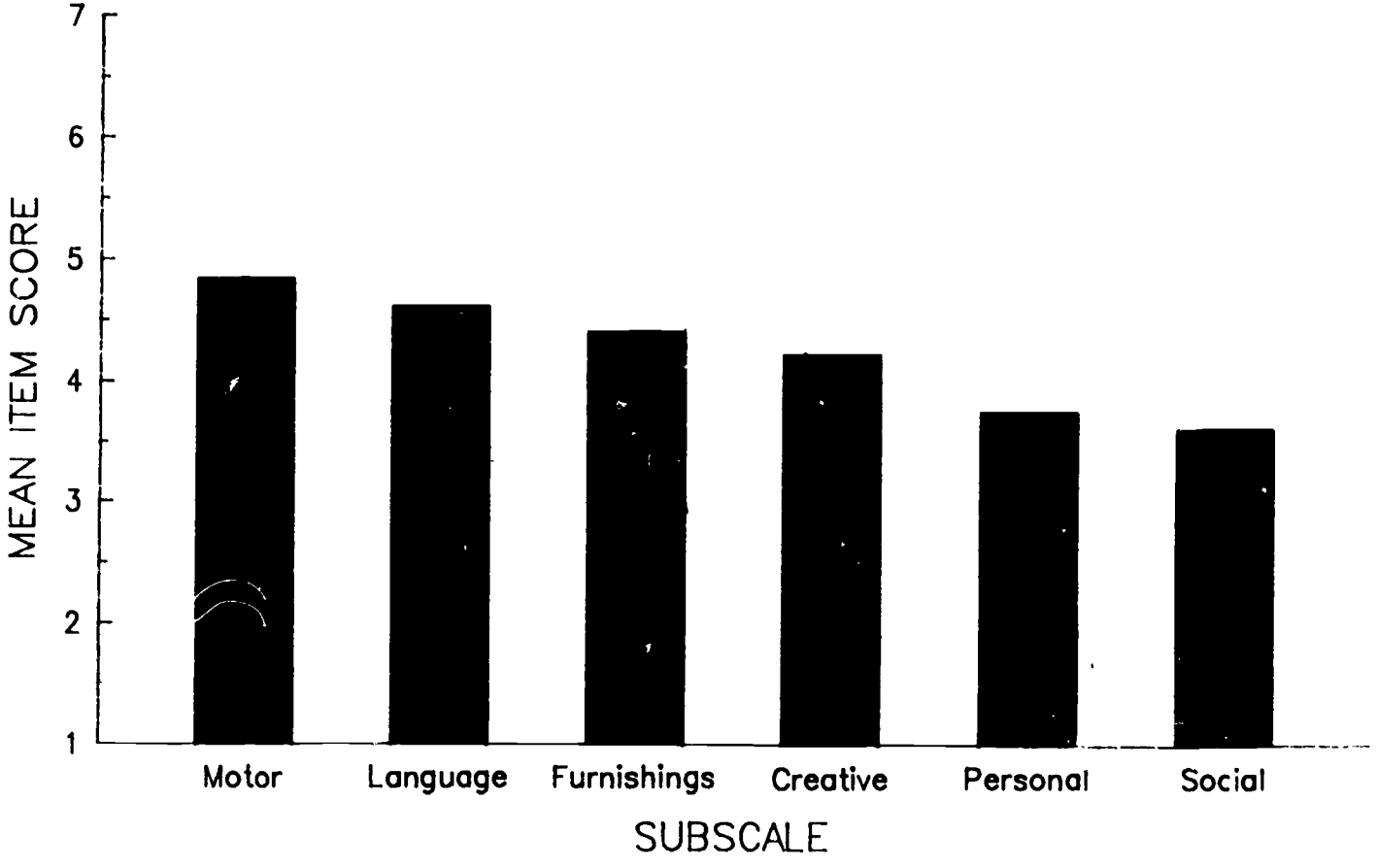


Figure 3

MEAN ECERS SUBSCALE SCORES
103 CLASSROOMS



Of the seven lowest mean item scores, three items were in the Social Development subscale, three were in the Creative Activities subscale, and one was in Personal Care. The items from the Social Development subscale included cultural awareness, space to be alone, and free play. From the Creative Activities subscale, art, sand/water play, and dramatic play were among the lowest items on the scale, as was toileting from the Personal Care subscale. The lowest item, cultural awareness, and the second lowest, toileting, were from the two lowest subscales overall. The mean scores on these two items were also a great deal lower than the other items on the scale, and are well below even a minimal rating of 3.

Checklist of Kindergarten Activities

The Checklist of Kindergarten Activities (CKA) provided supplementary information about the quality of practices in kindergarten classrooms observed during the spring and fall. Table 7 presents the ranges, means, and standard deviations for each of the areas covered on the Checklist, as well as for the Activities and Materials subscales and the Total score. The mean Total score was 38.49 (s.d.=6.92), which is equivalent to 73% of the maximum possible score of 53. The mean Activities subscale score was proportionally higher than the Materials subscale (75% vs. 68%), although both were substantially below the maximum. Similar to the ECERS data, the CKA scores included a wide range, suggesting that there are substantial variations in quality among kindergarten classes in the state.

As expected, the nine exemplary schools were also at the upper end of the range on the CKA. The mean Total score was 46.8 (s.d.=4.2, range=40-52), the mean Activities subscale score was 28.6 (s.d.=2.7,range=24-32), and the mean Materials score was 18.2 (s.d.=1.9, range=16-21). The large amount of overlap between the scores of exemplary and random classes indicates that some higher quality classrooms were found in the random sample as well.

A separate section on the CKA asked whether worksheets/ditto sheets, workbooks, and basal readers were present in the classroom. Most classes did use dittos or worksheets (83.5%). Workbooks were present in about half the classes observed (50.5%). Few classes had basal readers in the room (22.8%).

Another question on the CKA rated the amount of time children spent in large groups vs. small groups vs. alone using a 1-3 scale, from most to least. As shown in Table 8, the distributions for both random and exemplary classes were similar, with slightly less than half the schools spending the most time in large group and about half spending the

Table 7

Mean Subscale Scores on Checklist of Kindergarten Activities
N=103

Area	Mean	S.D.	%	Range	Maximum*
Language	3.80	1.16	76	1-5	5
Cognitive	5.38	1.57	67	0-8	8
Social	1.89	0.95	63	0-3	3
Self-Regulation	2.99	0.85	75	0-4	4
Self-Esteem	2.39	0.73	80	0-3	3
Disposition to Learn	5.11	1.34	85	1-6	6
Physical	2.58	0.76	86	1-3	3
Activities Subscale	24.14	4.79	75	11-32	32
Materials Subscale	14.35	3.18	68	6-21	21
Total	38.49	6.92	73	19-53	53

*Note: This number indicates the maximum score possible.

Table 8

Ratings of Amount of Group Time from the Checklist of Kindergarten Activities

		Random Classes N=103		Exemplary Classes N=9	
Group	Rating	Frequency	%	Frequency	%
Large Group	1 (Most)	45	43.7	3	33.3
	2	49	47.6	5	55.6
	3 (Least)	9	8.7	1	11.1
Small Group	1(Most)	52	50.5	4	44.4
	2	31	30.1	4	44.4
	3(Least)	20	19.4	1	11.1
Alone	1(Most)	7	6.8	2	22.2
	2	26	25.2	0	0
	3(Least)	70	68.0	7	77.8

Rank-order how the time was spent (1=most, 3=least)
__Large group __Small group __Alone/at desk

most time in small groups. In most of the classes, children spent the least amount of time working alone.

Assessors also rated whether the activities were mostly teacher-led or mostly child-led. In 91 (88%) classes in the random sample, and 5 (56%) classes in the exemplary sample, the activities were mostly teacher-led. Only 10 (10%) of the random schools and 4 (44%) of the exemplary classes were rated as mostly child-led. In the remaining 2 (2%) random classes activities were evenly split between teacher-led and child-led.

Another question on the CKA asked whether the activities seemed more liked "play", or "work", or some of both. In about half the schools (52% random and 44% exemplary) the activities were rated as some of both, about one-third (30% random and 56% exemplary) were rated as mostly "play", and about one-fifth (17% random and 0 exemplary) were rated as mostly "work".

Information was also gathered on the CKA about the number of children in membership in the class, the number of children present in class during the observation, and the racial composition of those present. An average of 24.9 (s.d.=2.9) children were in membership in each class, and an average of 22.9 (s.d.=3.4) children were present during each observation in the random classes. Of the children present, an average of 15.6 (68.4%) were white, 6.8 (29.3%) were black, and 0.5 (2.3%) were other races. For the exemplary classes, an average of 25.9 (s.d.=2.6) students were in membership. An average of 24.4 (s.d.=3.4) students were present during the observations, and an average of 17.9 (72.0%) of them were white, 5.3 (22.8%) were black, and 1.2 (5.2%) were other races.

Six questions about the types of activities performed by the teacher's assistant were included only on the fall version of the CKA. The frequencies and percentages for each of these activities are included in Table 9. In over half the random classes the assistants spent little or no time in activities apart from the class, or in working with the whole class. They frequently worked with small groups or interacted with the children in basic routines such as lining up, being quiet, and going to lunch. They tended to spend either little or some time in routines involving little interaction with the children (e.g. helping prepare or pass out materials), and working one-on-one with a child. The patterns in the four exemplary classes look similar to the random classes. The variation in ratings for each of these activities suggests that there are wide differences among classes in the role played by the teacher's assistant.

Table 9

Time Spent by Teachers' Assistants in Classroom Activities from the Checklist of Kindergarten Activities

(Fall Sample Only)[1]

Activity	Rating of Time Spent	Random N=49 Frequency	Random N=49 %	Exemplary N=4 Frequency	Exemplary N=4 %
Involved in activities apart from the class	Frequently	6	12.2	0	0
	Somewhat	18	36.7	2	50.0
	None/Little	25	51.0	2	50.0
Helping prepare materials, pass out materials, etc.- little interaction with children	Frequently	11	22.4	1	25.0
	Somewhat	21	42.9	2	50.0
	None/Little	17	34.7	1	25.0
Interacting with children in basic routines	Frequently	28	57.1	1	25.0
	Somewhat	20	40.8	3	75.0
	None/Little	1	2.0	0	0
Working with a small group	Frequently	29	59.2	3	75.0
	Somewhat	11	22.4	0	0
	None/Little	9	18.4	1	25.0
Working with an individual child (one-on-one)	Frequently	8	16.3	2	50.0
	Somewhat	22	44.9	2	50.0
	None/Little	19	38.8	0	0
Working with or leading the whole class	Frequently	4	8.2	0	0
	Somewhat	12	24.5	1	25.0
	None/Little	33	67.3	3	75.0

[1]This information was included for the Fall sample only.

How did the teacher's aide spend time in each of the following activities? F=Frequently, S=Somewhat, N=Not at all/ very little

Attitude to School Questionnaire

The Attitude to School Questionnaire (ASQ), administered only during the spring visits, provided information about individual kindergarten students' happiness with school. Scores on each of the 15 ASQ test items ranged from 1-3, with lower scores representing greater happiness with school. As shown in Table 10, the mean score on individual items in the random classes ranged from 1.21 (s.d.=0.54) to 2.15 (s.d.=0.86), with an overall mean across the 15 items of 1.67 (s.d.=0.36). A total mean ASQ score between 1-3 was determined for each child by averaging the values of the 15 items. These actual scores ranged from 1.00-3.00. The ASQ scores of the children in each class were averaged together to provide a mean class score. These class means ranged from 1.39 to 1.93.

The ASQ scores of children in the five spring exemplary classrooms are similar to those of the random sample. The mean class score for the exemplary schools was 1.56 (s.d.=0.30), with a range from 1.48-1.67. Although these scores are slightly more positive overall, the range is well within that of the random schools, suggesting that children's attitudes toward school in the exemplary classes are similar to those in some of the random classes.

Retention in Kindergarten

Other information obtained from the spring classroom visits was the number of children retained in each class. A retention was counted when a child was kept in regular kindergarten for another year or placed in "transition kindergarten" for a year, a class for children who have completed one year of kindergarten, but are not considered ready for first grade. Transition classes were used in 11 (20.8%) of the spring schools. In either case, the child is not promoted to first grade.

Across the random spring observation sample of 53 classes, 8.6% (115/1330) of the children enrolled in these classes were retained. The number retained in each class ranged from 0 to 15, representing 0% to 52% of the children in the class. The frequency of classes retaining various numbers of children is shown in Table 11. Nearly 36% of these classes retained no children, while another 26% retained only 1 child. Slightly over one-third of the sample (20 classes) accounts for 88% of the children retained.

In the five exemplary classrooms visited in the spring, 1.5% (2/136) of the children were retained. Three classes retained no children, while two classes retained one child. Although these retention figures for the exemplary classes seem lower than the average across the random sample, there

Table 10

Mean Item Scores on the Attitude to School Questionnaire

	Random N=1198		Exemplary N=132	
Questionnaire Item	Mean	S.D.	Mean	S.D.
*1.Trip over a rock	2.80	0.49	2.58	0.68
*2.See teacher walking down the hall	1.35	0.58	1.36	0.59
*3.More time for numbers tomorrow	1.80	0.82	1.64	0.71
4.Done number work--now there's more number work	2.15	0.86	1.94	0.86
5.Teacher is talking to parents	2.06	0.85	1.94	0.85
6.Time for school to begin	1.47	0.73	1.52	0.78
7.Doing your math	1.68	0.80	1.64	0.77
8.Principal talking to parents	1.93	0.88	1.64	0.80
9.Have something to show class	1.21	0.54	1.22	0.43
10.Done reading--Now there's more reading	2.02	0.85	1.94	0.90
11.Principal is standing in front of class	1.70	0.78	1.62	0.79
12.Get to school and go inside	1.46	0.69	1.27	0.54
13.Sitting and doing your work	1.65	0.76	1.58	0.77
14.Parents ask if you like the kids in your class	1.31	0.62	1.27	0.55
15.Given books to work at home	1.63	0.79	1.45	0.68
16.Need help and teacher comes over to help	1.29	0.58	1.27	0.58
17.Play time is over--Now you work at desk	2.12	0.88	1.96	0.87
18.Aunt & Uncle ask if you like school	1.36	0.65	1.18	0.49
Overall(Items 4-18)	1.67	0.36	1.56	0.30

*These were practice items and were not counted in the overall ASQ score.

Note: Items were scored as 1=Happy Face, 2=Neutral Face, 3=Sad Face

Table 11

Frequency of Retentions in Spring Observation Sample

N=53

Number of Children Retained in Class	Frequency of Classes	% of Classes
0	19	35.8
1	14	26.4
2	5	9.4
3	3	5.7
4	2	3.8
5	5	9.4
7	2	3.8
8	1	1.9
12	1	1.9
15	1	1.9

were many random classes with equally few retentions. A great disparity exists across the state in retention in kindergarten: while many kindergartens retain no or few children, others retain several.

Figure 4 presents the distribution according to sex and birthdate of the children in the spring random sample who were retained. This figure shows that more boys were retained than girls (67 vs. 48), and that younger children were retained more frequently than older children (42 vs. 32 vs. 26 vs. 15).

Tests for Differences by Region and School Size

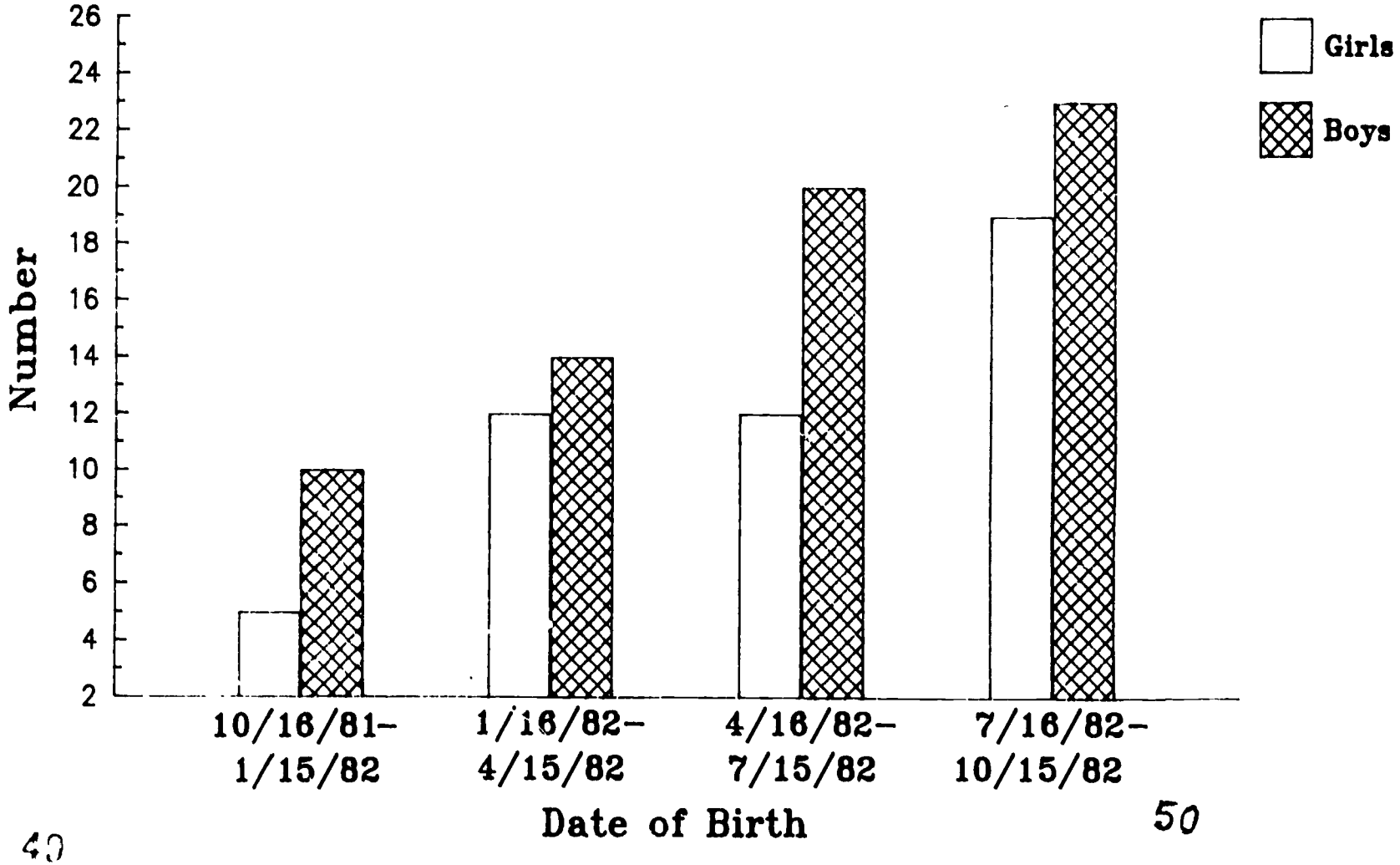
The scores on the Early Childhood Environment Rating Scale (ECERS) were analyzed to test for possible differences in the random sample in the quality of the classroom environment by Region and School Size, the variables by which the sample was stratified. Tables 12-14 present the means and standard deviations on this measure by Region and School Size for the spring, fall, and combined samples respectively. Separate analyses were conducted for the spring observations, the fall observations, and the combined spring and fall observations. Both total scores and subscale scores were tested in separate analyses of variance, with Region (East, Piedmont, and West) and School Size (Small, Medium, and Large) as independent variables. On all these analyses, there were no significant main effects or interactions. This result suggests that the quality of the kindergarten classroom environment, as measured by the Early Childhood Environment Rating Scale, is not related to the region of the state nor to the size of the school.

Similar sets of analyses were conducted using data from the Checklist of Kindergarten Activities (CKA). Scores on the Activities and Materials subscales were tested, as well as the Total score, derived by combining these two subscales. Tables 15-17 present the means and standard deviations on the Total score and Activities and Materials subscales by Region and School Size for the spring, fall, and combined samples respectively. Separate analyses of variance were run on the spring, fall, and combined samples to test the effects of Region (East, Piedmont, and West) and School Size (Small, Medium, and Large).

Using the total score from the spring observations, there was a significant interaction effect, $F(4,52)=2.66$, $p< 0.05$. There were no significant main effects or interactions for either the Activities or Materials subscales in the spring data. In the fall sample, there were no significant main effects or interactions on total scores, or on either set of subscale scores. The analyses of the combined spring and fall data resulted in no

Figure 4

KINDERGARTEN RETAINEES BY AGE AND SEX



N=115

Table 12

Mean Scores on the Early Childhood Environment Rating Scale for Spring Random Schools

N=53

Region	Size of School: Large	Medium	Small	Row Totals
West	4.4	4.2	4.0	4.2
	(1.1)	(1.0)	(0.1)	(0.8)
Piedmont	4.2	4.4	4.5	4.4
	(1.0)	(0.9)	(0.9)	(0.9)
East	3.2	3.9	4.8	3.8
	(0.7)	(0.7)	(0.2)	(0.8)
Column Totals	3.9	4.3	4.4	4.2
	(1.0)	(0.8)	(0.6)	(0.9)

Note: The total range possible is 1-7.

(Standard deviations are in parentheses.)

Table 13

Mean Scores on the Early Childhood Environment Rating Scale for Fall Random Schools

N=50

Region	Size of School: Large	Medium	Small	Row Totals
West	4.3 (0.6)	4.1 (0.6)	4.2 (0.4)	4.2 (0.5)
Piedmont	4.1 (0.6)	4.6 (0.6)	4.2 (1.2)	4.4 (0.6)
East	4.4 (0.9)	4.5 (0.7)	4.2 (0.6)	4.4 (0.7)
Column Totals	4.2 (0.7)	4.5 (0.6)	4.2 (0.6)	4.4 (0.6)

Note: The total range possible is 1-7.

(Standard deviations are in parentheses.)

Table 14

Mean Scores on the Early Childhood Environment Rating Scale for Spring and Fall Random Schools

N=103

Region	Size of School: Large	Medium	Small	Row Totals
West	4.4 (0.7)	4.1 (0.8)	4.1 (0.3)	4.2 (0.7)
Piedmont	4.2 (0.8)	4.5 (0.8)	4.4 (0.9)	4.4 (0.8)
East	3.9 (1.0)	4.2 (0.7)	4.5 (0.5)	4.1 (0.8)
Column Totals	4.1 (0.8)	4.4 (0.8)	4.3 (0.6)	4.3 (0.8)

Note: The total range possible is 1-7.

(Standard deviations are in parentheses.)

Table 15

Mean Total and Subscale Scores on the Checklist of Kindergarten Activities for Spring Random Schools

N=53

Region	Scale*	Size of School: Large	Medium	Small	Row Totals
West	Tot	43.0 (8.5)	40.6 (6.7)	33.5 (0.7)	39.6 (6.7)
	Act	26.5 (4.9)	24.6 (3.9)	21.5 (2.1)	24.3 (3.8)
	Mat	16.5 (3.5)	16.0 (3.2)	12.0 (1.4)	15.2 (3.2)
Piedmont	Tot	36.2 (7.7)	40.2 (6.1)	35.5 (0.7)	38.6 (6.6)
	Act	22.6 (4.6)	25.3 (4.8)	23.5 (3.5)	24.3 (4.7)
	Mat	13.7 (4.0)	14.9 (2.6)	12.0 (2.8)	14.3 (3.1)
East	Tot	26.4 (6.8)	37.1 (8.6)	44.5 (4.9)	34.7 (9.6)
	Act	16.0 (4.9)	22.8 (4.8)	28.0 (1.4)	21.3 (6.0)
	Mat	10.4 (3.2)	14.3 (3.9)	16.5 (3.5)	13.4 (4.0)
Column Totals	Tot	34.0 (9.1)	39.4 (6.9)	37.8 (5.7)	37.6 (7.8)
	Act	21.0 (5.8)	24.5 (4.7)	24.3 (3.6)	23.4 (5.1)
	Mat	13.0 (4.0)	14.9 (3.0)	13.5 (3.1)	14.2 (3.4)

*Note: Tot=Total, Act=Activities, Mat=Materials

The maximum possible scores are Total=53, Activities=32, Materials=21.

(Standard deviations are in parentheses.)

Table 16

Mean Total and Subscale Scores on the Checklist of Kindergarten Activities for Fall Random Schools

N=50

Region	Scale*	Size of School: Large	Medium	Small	Row Totals
West	Tot	38.5 (2.1)	39.5 (4.7)	43.5 (4.9)	40.3 (4.2)
	Act	22.5 (2.1)	23.5 (2.1)	25.0 (2.8)	23.6 (2.1)
	Mat	16.0 (4.2)	16.0 (3.2)	18.5 (2.1)	16.6 (3.0)
Piedmont	Tot	35.2 (4.6)	39.2 (4.7)	38.5 (4.9)	37.7 (4.9)
	Act	22.3 (4.2)	25.1 (4.0)	24.0 (5.7)	24.0 (4.2)
	Mat	12.9 (1.8)	14.1 (2.0)	14.5 (0.7)	13.7 (1.9)
East	Tot	39.7 (10.0)	43.0 (4.8)	42.5 (3.5)	41.6 (7.1)
	Act	25.6 (7.3)	28.0 (2.2)	27.0 (1.4)	26.9 (4.9)
	Mat	14.1 (4.0)	15.0 (3.9)	15.5 (2.1)	14.7 (3.7)
Column Totals	Tot	37.3 (7.1)	40.4 (4.9)	41.5 (4.2)	39.4 (5.8)
	Act	23.6 (5.5)	25.7 (3.6)	25.3 (3.2)	24.9 (4.4)
	Mat	13.7 (3.0)	14.7 (2.9)	16.1 (2.3)	14.5 (2.9)

*Note: Tot=Total, Act=Activities, Mat=Materials

The maximum possible scores are Total=53, Activities=32, Materials=21.

Table 17

Mean Total and Subscale Scores on the Checklist of Kindergarten Activities for Spring and Fall Random Schools

N=103

Region	Scale*	Size of School: Large	Medium	Small	Row Totals
West	Tot	40.8 (5.7)	40.1 (5.6)	38.5 (6.5)	39.9 (5.5)
	Act	24.5 (3.9)	24.1 (3.1)	23.3 (2.9)	24.0 (3.1)
	Mat	16.3 (3.2)	16.0 (3.0)	15.3 (4.0)	15.9 (3.1)
Piedmont	Tot	35.7 (6.2)	39.8 (5.5)	37.0 (3.4)	38.2 (5.8)
	Act	22.4 (4.3)	25.2 (4.4)	23.8 (3.9)	24.2 (4.4)
	Mat	13.3 (3.0)	14.6 (2.3)	13.3 (2.2)	14.0 (2.6)
East	Tot	34.2 (10.9)	39.9 (7.5)	43.5 (3.7)	38.2 (9.0)
	Act	21.6 (7.9)	25.2 (4.6)	27.5 (1.3)	24.2 (6.1)
	Mat	12.6 (4.0)	14.6 (3.8)	16.0 (2.4)	14.1 (3.8)
Column Totals	Tot	35.8 (8.1)	39.9 (6.0)	39.7 (5.2)	38.5 (6.9)
	Act	22.4 (5.7)	25.0 (4.2)	24.8 (3.3)	24.1 (4.8)
	Mat	13.4 (3.5)	14.8 (2.9)	14.8 (3.0)	14.3 (3.2)

*Note: Tot=Total, Act=Activities, Mat=Materials

The maximum possible scores are Total=53, Activities=32, Materials=21.

(Standard deviations are in parentheses.)

significant main effects or interactions for the Total scores nor for the Activities and Materials subscales. In combination, these findings suggest that there are few effects of region and school size on the quality of kindergarten practices as measured by the Checklist of Kindergarten Activities.

Tests for Differences in Spring vs. Fall Samples

A second set of analyses were conducted using the ECERS scores as dependent variables to test for any differences between the spring and fall random samples. A series of t-tests were performed using both the total and subscale score means as the dependent measures and the sample group (spring vs. fall) as the independent measure. There were no significant differences between the spring and fall samples on the total scores or on any of the subscale scores. Therefore, the spring and fall samples can be combined for other analyses using ECERS scores.

A series of t-tests were also performed on the total and subscale scores of the CKA to test for any differences in the spring vs. fall samples. No significant differences were found between the two samples on the Total score, as well as on the Activities and Materials subscales. This finding suggests that these two samples can be combined for future analyses.

Principal and Teacher Questionnaires

Another major component of the data was the survey of elementary school principals and kindergarten teachers. Both the Principal and Teacher Questionnaires provided information about attitudes and philosophies regarding kindergarten practices, as well as some demographic information. Most of the questions corresponded across the two versions of the questionnaire.

Teacher Qualifications. Principals' and teachers' choices of qualifications they considered important for kindergarten teachers are presented in Table 18. Principals and teachers tended to choose these categories with similar frequency. Overall, specialized training in early childhood education or child development and experience working with preprimary or primary age children seemed to be important considerations from both principals' and teachers' perspectives.

Finding Qualified Teachers. Principals were asked to rate how difficult it is for them to find qualified kindergarten teachers. The choices included not at all, somewhat, difficult, very difficult, exceptionally difficult, and not applicable (never hired a kindergarten teacher). Most principals found it not at all difficult,

Table 18

Principal and Teacher Perceptions of
Important Qualifications for Kindergarten Teachers

	Principals		Teachers	
	N=218		N=375	
Qualification	Frequency	%	Frequency	%
Specialization in Early Childhood Education	184	84.4	328	87.5
Experience Teaching Preprimary Age Children, Preschool or Kindergarten	158	72.5	295	78.7
Experience Teaching Primary Age Children	144	66.1	259	69.1
Specialization in Child Development	118	54.1	228	60.8
Experience Teaching Elementary Age Children	40	18.3	99	26.4
Specialization in Reading	24	11.0	45	12.0
Experience Teaching at Any Level	15	6.9	25	6.7

Note: Percentage figures given are the percent of respondents choosing that qualification. Respondents could choose as many qualifications as applied, so percentages in each column total more than 100%.

The following question was asked on the Principal Questionnaires: What qualifications do you look for when searching for a kindergarten teacher?

The following question was asked on the Teacher Questionnaires: What qualifications do you think are important for a kindergarten teacher?

50.9%, or somewhat difficult, 29.4%. Only 5.5% considered it difficult or very difficult, and none considered it exceptionally difficult. Another 12.4% of principals marked not applicable, indicating that they had never hired a kindergarten teacher.

Helpful Experiences. Teachers were asked to indicate which experiences were helpful to them in learning about developmentally appropriate ways to teach kindergarten children. The frequency and percentage each item was chosen are reported in Table 19. Classroom experience was considered helpful by nearly all (98.1%). In addition, other teachers, inservice sessions, their own children, books and journals, other experiences with children, and college courses were helpful to a majority of the teachers.

Important Aspects of Kindergarten. Respondents were asked to rate the importance of various aspects of their kindergarten program on a 1-5 scale, ranging from not at all important to very important. Mean ratings are presented in Table 20. Overall, teachers tended to rate each item higher in importance, although they were similar to principals in the relative importance they attributed to each item in comparison to the others. The three aspects rated most highly by both principals and teachers were social skills development (4.84 & 4.91), motor skills development (4.68 & 4.80), and parent involvement (4.62 & 4.67).

Influences on Kindergarten Programs. Principals' and teachers' mean ratings of how much influence various sources have on their kindergarten program are shown in Table 21. The responses of principals and teachers tended to be similar for most items, both in terms of the means and the ranges. The four most highly rated sources of influences according to principals were kindergarten teachers (4.67), administrative policies (3.68), preschool curriculum (3.67), and changes in society (3.49). For teachers, the top four influences were administrative policies (3.81), changes in society (3.62), changes in the education profession (3.58), and preschool curriculum (3.57). Three of these four categories chosen by principals and teachers overlap, and principals' top choice, kindergarten teachers, was not included on the Teacher Questionnaire since it would have referred to themselves.

Flexibility of Curriculum. Teachers were asked to indicate how much flexibility they have in deciding their curriculum from day to day (almost none, slight, some, much, or very much). In general, teachers reported that they have a great deal of flexibility. A total of 74.6% of the teachers said that they have much (33.2%) or very much (41.4%) flexibility. Some flexibility was reported by 19.2%, slight by 3.8%, and almost none by 2.4% of the teachers.

Table 19

Teacher Ratings of Helpful Experiences

N=375

Experience	Frequency	%[1]
Classroom Experience	369	98.4
Other Teachers	299	79.7
Inservice Sessions	277	73.9
Own Children	238	63.5
Books/Journals	235	62.7
Other Experiences with Children	225	60.0
College Courses	207	55.2
Internship/Student Teaching	165	44.0
Teaching Other Grade Levels	124	33.1
Principal	55	14.7
Special Mentor	39	10.4

[1]Respondents could choose as many experiences as applied, so percentages in this column total more than 100%.

What experiences have been helpful to you in learning about developmentally appropriate ways to teach kindergarten children? (Circle all that apply)

Table 20

Importance of Various Aspects of Kindergartens:
Principal and Teacher Ratings

	Principals N=212-217			Teachers N=350-375		
Aspects	Mean	SD	Range	Mean	SD	Range
Social Skills Development	4.84	0.40	3-5	4.91	0.34	2-5
Motor Skills Development	4.68	0.55	3-5	4.80	0.44	3-5
Parent Involvement	4.62	0.64	2-5	4.67	0.67	2-5
Affective Development	4.35	0.71	2-5	4.51	0.63	3-5
Play	4.33	0.72	3-5	4.60	0.67	2-5
Teacher Directed Activities	4.15	0.72	1-5	4.21	0.74	2-5
Child Selected Activities	3.95	0.79	2-5	4.23	0.77	2-5
Academic Skills	3.66	0.95	1-5	4.08	0.86	1-5

How important do you consider each of these aspects of your kindergarten program? Use the following scale:

1 = Not at all
2 = Slightly
3 = Somewhat
4 = Fairly
5 = Very Important

Table 21

Sources of Influence on Kindergartens:
Principal and Teacher Ratings

	Principals N=213-217			Teachers N=371-375		
Sources	Mean	SD	Range	Mean	SD	Range
Kindergarten Teachers	4.66	0.55	3-5	----	----	----
Administrative Policies	3.68	1.02	1-5	3.81	0.99	1-5
Preschool Curriculum	3.67	1.11	1-5	3.57	1.28	1-5
Other Kindergarten Teachers	----	----	----	3.55	0.97	1-5
Teacher Appraisal Instrument	----	----	----	3.50	1.19	1-5
Changes in Society	3.49	0.91	1-5	3.62	0.95	1-5
Principal	----	----	----	3.42	1.03	1-5
Board of Education	3.35	1.10	1-5	3.16	1.18	1-5
1st Grade Curriculum	3.32	0.90	1-5	3.40	1.03	1-5
Changes in the Education Profession	3.26	0.98	1-5	3.58	0.97	1-5
Parents	3.18	0.91	1-5	3.16	1.06	1-5
Superintendent	3.15	1.12	1-5	3.14	1.22	1-5
1st Grade Teachers	3.15	0.85	1-5	3.03	1.07	1-5
Other Principals	2.29	0.94	1-4	----	----	----
Achievement Testing	2.25	1.12	1-5	2.14	1.26	1-5

How much do each of these sources influence your kindergarten program?
Use the following scale: 1 = Not at all
2 = Slightly
3 = Somewhat
4 = Much
5 = Very Much

Discipline and Children's Behavior. Three rating scales relating to the issue of discipline and children's behavior were included on the questionnaires. Table 22 contains principals' and teachers' ratings of the usefulness of various disciplinary techniques with kindergarten children. These techniques included both rewards and punishments which were rated on a 1-5 scale from not at all important to very important. Both the actual ratings and the relative rankings of each technique by teachers and principals corresponded somewhat, although not exactly.

The three most highly rated techniques overall by both teachers and principals were rewards: Verbal praise, Send a note home for good behavior, and Let the child do something special in class. The three most highly rated punishments by principals (rated fourth, sixth, and eighth over all techniques) were Discuss the offense, Call the parents, and "Time-out". For teachers, the three most highly rated punishments (rated fifth, sixth, and seventh overall) were Take the child out of the activity, "Time-out", and Discuss the offense. The four least favored techniques by both principals and teachers were Make the child pay for damages, Corporal punishment, Send the child home, and Give extra homework. Ratings on almost all of these techniques covered the full range from not at all important to very important, suggesting that there are differences in educators' views about the effectiveness of these disciplinary techniques with kindergartners.

Principals and teachers also rated how important they considered various behaviors shown by kindergartners. Descriptions of positive behaviors are listed in Table 23, and negative behaviors are in Table 24. The relative importance attributed to each behavior was similar for principals and teachers, although teachers tended to rate most items higher than principals. Most of the positive behaviors were considered fairly important or very important by both teachers and principals. Ratings also tended to be fairly high on the negative behaviors by both teachers and principals. Both groups indicated greater concern over negative interactions with the teacher than negative interactions with other students.

Children's Preparation for Kindergarten. Teachers were asked what impact the increase in the number of children with preschool experience in group settings has had on children's preparation for kindergarten. They rated the impact on various areas of kindergarten using a 1-5 scale, ranging from much worse prepared to much better prepared, with the midpoint indicating no impact. The frequency distribution for each of these ratings is contained in Table 25. In general, teachers considered children better prepared in all areas, with 70.3% to 86.8% choosing somewhat

Table 22

Importance of Disciplinary Techniques:
Principal and Teacher Ratings

	Principals			Teachers		
	N=216-218			N=368-375		
Technique	Mean	SD	Range	Mean	SD	Range
Verbal Praise	4.92	0.29	3-5	4.89	0.41	2-5
Send a Note Home for Good Behavior	4.65	0.62	2-5	4.53	0.78	1-5
Let Child Do Something Special	4.31	0.75	2-5	4.33	0.84	1-5
Discuss the Offense	4.11	0.78	1-5	4.08	0.89	2-5
Tangible Rewards	3.93	0.82	2-5	4.05	1.00	1-5
Call the Parents	3.92	0.82	2-5	3.89	0.95	1-5
Extra Privileges	3.86	0.83	1-5	4.14	0.92	1-5
"Time-out"	3.75	1.00	1-5	4.10	0.97	1-5
Send a Note Home for Bad Behavior	3.72	0.94	1-5	3.91	0.98	1-5
Take Away Privileges	3.57	0.95	1-5	3.91	0.96	1-5
Take Child Out of the Activity	3.53	0.98	1-5	4.13	0.88	1-5
Extra Playtime	3.42	1.06	1-5	3.46	1.26	1-5
Isolate the Child	3.10	1.10	1-5	3.45	1.22	1-5
Put Child's Name on the Board	3.01	1.07	1-5	3.25	1.29	1-5
Make Child Apologize	2.79	1.09	1-5	3.34	1.15	1-5
Ignore Child's Behavior	2.58	1.03	1-5	2.51	1.02	1-5
Send Child to Principal's Office	2.34	0.94	1-5	2.25	1.06	1-5
Lecture	2.16	0.89	1-5	2.34	0.93	1-5
Scold the Child	2.14	0.91	1-5	2.28	0.93	1-5
Make Child Pay for Damages	1.95	1.04	1-5	1.85	1.12	1-5
Corporal Punishment	1.87	0.92	1-5	1.75	0.98	1-5
Send the Child Home	1.59	0.99	1-5	1.67	1.11	1-5
Give Extra Homework	1.13	0.37	1-3	1.14	0.51	1-5

There are many techniques to manage children's behavior. In your judgment, how useful do you consider each of the following control techniques for managing kindergartners' behavior at school? Use the following scale:
1=Not at All Important
2=Slightly
3=Somewhat
4=Fairly
5=Very Important

Table 23

Importance of Kindergartners' Positive Behaviors at School: Principal and Teacher Ratings

	Principals N=216-217			Teachers N=374-375		
Behavior	Mean	SD	Range	Mean	SD	Range
Getting Along Well with Other Students	4.71	0.52	3-5	4.82	0.43	3-5
Doing What the Teacher Says	4.57	0.62	2-5	4.81	0.50	1-5
Trying Hard	4.53	0.64	2-5	4.75	0.54	2-5
Behaving Well	4.43	0.64	2-5	4.70	0.55	2-5
Helping in Class	4.32	0.72	1-5	4.34	0.78	1-5
Behaving Especially Well	4.16	0.81	2-5	4.16	0.89	1-5
Doing What Teacher Says Right Away	3.91	0.79	2-5	4.28	0.80	1-5
Admitting He/She Did Something Wrong	3.80	1.15	1-5	4.23	0.91	1-5
Doing Something Nice for Teahcer	3.32	1.14	1-5	2.78	1.22	1-5
Being Quiet in Class	3.24	0.91	1-5	3.58	0.92	1-5

How important do you consider each of these behaviors when shown by kindergartners at school? Use the following scale:

1=Not at All Important
2=Slightly
3=Somewhat
4=Fairly
5=Very Important

Table 24

Concern for Kindergartners' Negative Behaviors at School: Principal and Teacher Ratings

	Principals			Teachers		
	N=215-218			N=356-375		
Behavior	Mean	SD	Range	Mean	SD	Range
Hitting the Teacher	4.79	0.56	1-5	4.87	0.53	1-5
Leaving Class Without Permission	4.68	0.68	1-5	4.80	0.62	1-5
Stealing	4.52	0.78	1-5	4.73	0.59	2-5
Yelling at Teacher	4.48	0.74	2-5	4.71	0.64	1-5
Arguing with Teacher	4.33	0.81	2-5	4.47	0.77	1-5
Refusing To Do What the Teacher Says	4.27	0.82	2-5	4.62	0.61	2-5
Fighting with Another Child	4.17	0.92	2-5	4.49	0.76	2-5
Disrupting Class	4.16	0.92	1-5	4.47	0.74	1-5
Telling Lies	4.07	0.93	1-5	4.46	0.81	1-5
Hitting Another Child	4.00	0.97	1-5	4.42	0.82	2-5
Doing Something Child Was Told Not To Do	3.88	0.85	2-5	4.20	0.79	2-5
Not Listening in Class	3.59	0.85	1-5	4.20	0.75	2-5
Not Doing What the Teacher Says Right Away	3.59	0.93	1-5	3.89	0.85	1-5
Using Teacher's Things Without Permission	3.53	0.94	1-5	3.93	1.00	1-5
Breaking Something Valuable	3.50	1.00	1-5	3.72	1.07	1-5
Using Another Child's Things Without Permission	3.49	0.96	1-5	3.92	0.90	1-5
Yelling at Another Child	3.47	0.90	1-5	3.69	0.97	1-5
Bothering Another Child	3.41	0.88	1-5	3.81	0.89	1-5
Teasing Another Child	3.36	0.92	2-5	3.82	0.95	1-5
Being Too Noisy in Class	3.14	0.95	1-5	3.61	0.92	1-5
Arguing with Another Child	3.07	0.85	1-5	3.37	0.98	1-5
Talking in Class	3.06	0.93	1-5	3.29	1.02	1-5
Bothering Teacher	2.99	1.01	1-5	2.94	1.10	1-5
Not Doing Homework	2.47	1.17	1-5	2.40	1.29	1-5

Table 24 Continued

How concerned are you when kindergartners show each of these behaviors at school? Use the following scale:

1=Not at All Concerned
2=Slightly
3=Somewhat
4=Fairly
5=Very Concerned

Table 25

Teacher Ratings of the Impact of Preschool Experience on Children's Preparation for Kindergarten

N=375

Area of Preparation	Rating of Preparation				
	Much Worse	Somewhat Worse	No Impact	Somewhat Better	Much Better
Academic Skills Development	0 0%	11 3.0%	38 10.2%	237 63.9%	85 22.9%
Affective Development	3 0.8%	22 6.2%	60 16.9%	220 61.8%	51 14.3%
Motor Skills Development	1 0.3%	7 1.9%	75 20.3%	227 61.4%	60 16.2%
Social Skills Development	6 1.6%	37 10.0%	28 7.6%	198 53.5%	101 27.3%
Child Selected Activities	6 1.6%	12 3.2%	111 29.8%	199 53.5%	44 11.8%
Teacher Directed Activities	3 0.8%	12 3.3%	70 19.0%	222 60.2%	62 16.8%
Play	3 0.8%	30 8.1%	77 20.8%	182 49.2%	78 21.1%

In recent years, there has been a large increase in the number of children with preschool experiences in group care settings (such as daycare, Head Start, nursery school). what impact has this had on children's preparation for kindergarten at your school? Use the following scale:

1=Much Worse Prepared
2=Somewhat Worse Prepared
3=No Impact
4=Somewhat Better Prepared
5=Much Better Prepared

better or much better prepared for kindergarten in each area.

When asked whether North Carolina should offer programs for 4-year-olds in the public schools, 44.4% of the principals and 31.9% of the teachers were in favor of offering programs for all children. Offering programs only for disadvantaged or at-risk children was chosen by 24.6% of the principals and 35.3% of the teachers. Only 30.9% of the principals and 32.8% of the teachers were opposed to offering public programs for 4-year-olds, suggesting that the prevalent view of both principals and teachers is supportive of these programs. However, only 25.2% of the principals responded that they would have space at their school for such programs, indicating that this issue of space needs to be addressed before such programs can become a reality.

Special Needs Services. Principals and teachers were asked to report the types of services and placements used for kindergartners with special needs at their school in 1987-1988. These results are listed in Table 26. The reports of principals and teachers were quite similar, although a somewhat higher percentage of principals than teachers reported the use of most of these categories of services. Speech/language therapy was used in nearly all schools, as indicated by 95.0% of the principals and 97.3% of the teachers. Psychological services also seemed to be widely available to kindergartners (72.5% & 59.8%), as were audiological services (57.8% & 41.0%). The primary placements used with kindergartners with special needs were mainstreaming in a regular kindergarten class (57.3% & 51.6%) and resource class (51.4% & 47.6%).

Reasons for Kindergarten Retention. Principals and teachers were asked to list the five most important factors they considered when making decisions about retaining children in kindergarten. These responses were then coded according to the categories listed in Appendix K. Table 27 shows that the percentage of all responses (summed across the five factors listed) as well as the percentage of individuals answering in each of these categories, were similar for both teachers and principals, although they varied somewhat in the relative frequencies. For principals, the six most frequently chosen categories were: General Development (24.9% of all responses / 72.0% of all principals), Social/Emotional Development (16.9% / 56.4%), Cognitive Development (16.2% / 51.4%), Parent/Family Factors (9.4% / 35.3%), Physical Development (9.0% / 34.4%), and Age of the Child (6.8% / 28.0%). The six most frequent response categories for teachers were: Cognitive Development (26.3% / 73.9%), General Development (22.5% / 71.3%), Social/Emotional Development (18.2% / 62.0%), Physical Development (12.1% / 45.5%), Age of the Child (5.4% /

Table 26

Principal and Teacher Reports of Services and Placements Used for Kindergartners with Special Needs (1987-1988)

Services	Principals N=218 Frequency	%	Teachers N=375 Frequency	%
Speech/Language Therapy	207	95.0	366	97.6
Psychological Services	158	72.5	225	60.0
Audiology	126	57.8	154	41.1
Physical Therapy	86	39.4	108	28.8
Parent Services	59	27.1	87	23.2
Adaptive P.E.	58	26.6	72	19.2
Occupational Therapy	43	19.7	83	22.1
Art/Music Therapy	43	19.7	69	18.4
Placements				
Mainstream in Regular Kindergarten Class	125	57.3	194	51.7
Resource Class	112	51.4	179	47.7
Special Education Class	78	35.8	128	34.1
Special Education Consultants	57	26.1	82	21.9

What types of services and placements were used for KINDERGARTNERS with special needs at your school during the 1987-1988 school year?

Table 27

Reasons for Retention:
Principal and Teacher Responses

Reasons	Principals				Teachers			
	Responses[1] N=897		Individuals[2] N=218		Responses[1] N=1602		Individuals[2] N=375	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
General Development	223	24.9	157	72.0	360	22.5	268	71.5
Social/Emotional Development	152	16.9	123	56.4	291	18.2	233	62.1
Cognitive Development	145	16.2	112	51.4	422	26.3	278	74.1
Parent/Family Factors	84	9.4	77	35.3	85	5.3	84	22.4
Physical Development	81	9.0	75	34.4	194	12.1	171	45.6
Age of Child	61	6.8	61	28.0	87	5.4	87	23.2
Fit with First Grade	45	5.0	39	17.9	48	3.0	41	10.9
Teacher Recommendation	30	3.3	27	12.4	8	0.5	7	1.9
Attendance	19	2.1	19	8.7	23	1.4	23	6.1
Student Motivation	11	1.2	10	4.6	4	0.2	4	1.1
School Policy	9	1.0	8	3.7	24	1.5	22	5.9
Test Scores	9	1.0	9	4.1	23	1.4	22	5.9
Prior Retentions	3	0.3	3	1.4	1	0.1	1	0.3
Availability of Resources	2	0.2	2	0.9	6	0.4	6	1.6
Sex of Child	2	0.2	2	0.9	4	0.2	4	1.1
Grades	2	0.2	2	0.9	2	0.1	2	0.5
Other	6	0.7	6	2.8	3	0.2	3	0.8
Don't Retain	5	0.6	5	2.3	12	0.7	12	3.2
No Response	8	0.9	8	3.7	5	0.3	5	1.3

[1]These are summed across all 5 responses.
[2]This is the number of principals or teachers who gave one or more responses in a given category.

What are the five most important factors you consider when making decisions about retaining children in kindergarten?

23.1%), and Parent/Family Factors (5.3% / 22.3%). These orders remain the same whether the percentage of responses or of individuals is used.

Areas Needing Improvement and Outstanding Areas. Both principals and teachers were asked to list the three areas needing the most improvement in their kindergarten program, and the three most outstanding areas of their kindergarten program. Responses to both these questions were coded according to the same categories, contained in Appendix L. The areas needing the most improvement are listed in Table 28 by both the frequency of responses and of individuals giving that response. The categories named most frequently were similar for principals and teachers, with the top three being Physical Environment (17.7% of total principal responses / 27.5% of principals & 21.4% of total teacher responses / 39.4% of teachers), Cognitive Development (15.0% / 26.1% & 15.0% / 29.0%), and Classroom Practices (13.8% / 24.8% & 12.4% / 25.5%). Examples of responses coded as Physical Environment were facilities, materials, equipment, more manipulatives; examples of Cognitive Development included reading program, verbal skills, academic skills, math; examples of Classroom Practices were group activities, use of centers, hands-on experiences, and instruction. The one area where there was some discrepancy between principals and teachers was the importance of class size. Nearly twice as many teachers (22.9% / 9.5% of responses) named class size as an area needing improvement in comparison to principals (11.5% / 5.1% of responses).

In naming their the most outstanding areas, principals and teachers were also quite similar in the frequency of their responses, as shown in Table 29. For both principals and teachers, the three most frequent categories were Cognitive Development (17.2% / 31.7% of principals & 20.5% / 37.5% of teachers), Classroom Practices (16.5% / 36.7% & 16.5% / 34.8%), and Child Focus (11.2% / 22.9% & 11.9% / 25.8%). Examples of responses coded as Cognitive Development and Classroom Practices were given above. Examples of Child Focus responses were whole-child approach, child-centered activities, integrated learning, and emphasis on early child development.

Appropriate Practices. Both the principal and teacher questionnaires contained a list of 28 kindergarten practices which they rated in terms of their agreement with each one. A 1-5 scale, from strongly disagree to strongly agree, was used to rate each item. These ratings were then summed into a mean score representing the developmental appropriateness of their responses, with 1 being the least appropriate and 5 being the most appropriate. Table 30 presents the mean, standard deviation, and range for each item for principals and teachers. Items marked with a * were reversed in their scoring, so that "strongly disagree" was scored as 5,

Table 28

Areas of Kindergarten Needing Improvement:
Principals' and Teachers' Responses

Area	Principals				Teachers			
	Responses[1] N=487		Individuals[2] N=218		Responses[1] N=908		Individuals[2] N=375	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Physical Environment	86	17.7	60	27.5	194	21.4	148	39.5
Cognitive Development	73	15.0	57	26.1	136	15.0	109	29.1
Classroom Practices	67	13.8	54	24.8	113	12.4	96	25.6
Parents/Community	35	7.2	34	15.6	49	5.4	48	12.8
Child Focus	27	5.5	24	11.0	35	3.9	32	8.5
Class Size	25	5.1	25	11.5	86	9.5	86	22.9
Physical Development	20	4.1	19	8.7	27	3.0	27	7.2
Screening & Identification	17	3.5	14	6.4	30	3.3	29	7.7
Social Development	16	3.3	16	7.3	14	1.5	13	3.5
Funding	14	2.9	14	6.4	34	3.7	32	8.5
Transition Kindergarten	13	2.7	13	6.0	11	1.2	11	2.9
Other Staff	10	2.1	9	4.1	55	6.1	46	12.3
Teachers	11	2.3	11	5.0	11	1.2	11	2.9
Teaching Staff	10	2.1	10	4.6	5	0.6	5	1.3
Principal	--	--	--	--	9	1.0	9	2.4
Teamwork	8	1.6	7	3.2	17	1.9	17	4.5
Readiness	6	1.2	6	2.8	3	0.3	3	0.8
District Office	4	0.8	4	1.8	2	0.2	2	0.5
Discipline	3	0.6	3	1.4	11	1.2	11	2.9
Aides	2	0.4	2	0.9	5	0.6	5	1.3
Earlier Birthdate Cutoff	1	0.2	1	0.5	3	0.3	3	0.8
Other	14	2.9	14	6.4	35	3.9	32	8.5
No Response	25	5.1	25	11.5	23	2.5	23	6.1

[1]These are summed across all 3 responses.
[2]This is the number of principals or teachers who gave one or more responses in a given category.

What areas of the kindergarten program at your school do you feel need the most improvement?

Table 29

Outstanding Areas of Kindergarten:
Principal and Teacher Responses

	Principals				Teachers			
	Responses[1] N=545		Individuals[2] N=218		Responses[1] N=960		Individuals[2] N=375	
Area	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Cognitive Development	94	17.2	69	31.7	197	20.5	141	37.6
Classroom Practices	90	16.5	80	36.7	158	16.5	131	34.9
Child Focus	61	11.2	50	22.9	114	11.9	97	25.3
Teachers	50	9.2	49	22.5	41	4.3	41	10.9
Social/Emotional Development	42	7.7	41	18.8	23	2.4	22	5.9
Physical Environment	37	6.8	36	16.5	84	8.8	70	18.7
Parents/Community	33	6.1	33	15.1	67	7.0	66	17.6
Teaching Staff	33	6.1	33	15.1	18	1.9	18	4.8
Screening & Identification	17	3.1	17	7.8	25	2.6	24	6.4
Teamwork	14	2.6	13	6.0	57	5.9	55	14.7
Readiness	11	2.0	9	4.1	11	1.1	10	2.7
Physical Development	8	1.5	8	3.7	20	2.1	20	5.3
Other Staff	7	1.3	7	3.2	42	4.4	39	10.4
Aides	5	0.9	5	2.3	8	0.8	8	2.1
Transition Kindergarten	5	0.9	4	1.8	5	0.5	5	1.3
Class Size	3	0.6	3	1.4	6	0.6	6	1.7
District Office	3	0.6	3	1.4	3	0.3	3	0.8
Funding	--	---	--	---	3	0.3	3	0.8
Discipline	2	0.4	2	0.9	12	1.3	12	3.2
Principal	1	0.2	1	0.5	26	2.7	26	6.9
Other	13	2.4	13	6.0	12	1.3	11	2.9
No Response	16	2.9	16	7.3	28	2.9	28	7.5

[1]These are summed across all 3 responses.
[2]This is the number of principals or teachers who gave one or more responses in a given category.

What areas of the kindergarten program at your school do you feel are the most outstanding?

Table 30

Agreement with Kindergarten Practices:
Appropriateness of Principal and Teacher Ratings[1]

Kindergarten Teachers Should:	Principals N=207-214 Mean	SD	Range	Teachers N=371-375 Mean	SD	Range
Use manipulatives to teach children math	4.72	0.48	2-5	4.88	0.36	2-5
Read stories to the class every day	4.70	0.54	1-5	4.93	0.26	3-5
*Involve all children in formal reading instruction	4.46	0.56	3-5	4.57	0.56	3-5
*Use grades to motivate children	4.45	0.62	3-5	4.54	0.61	3-5
Allow children to play with blocks	4.44	0.53	3-5	4.66	0.48	3-5
*Provide substantial workbook and other seatwork activity	4.34	0.58	3-5	4.20	0.65	3-5
Have a daily music activity	4.33	0.61	2-5	4.57	0.57	2-5
Encourage dramatic play as a means of enhancing cognitive and social development	4.31	0.62	2-5	4.49	0.67	1-5
Provide children with considerable open-ended materials and experiences	4.29	0.66	1-5	4.39	0.58	2-5
*Administer reading readiness tests to all kindergarten children early in the year	4.24	0.59	3-5	4.36	0.65	3-5
Plan time for gross-motor activities every morning and afternoon	4.17	0.56	1-5	4.27	0.70	1-5
Present educational activities as games	4.13	0.77	2-5	4.41	0.70	2-5
*Not leave children to solve problems on their own	4.10	0.49	3-5	4.04	0.54	3-5
*Use worksheets to help children learn skills such as math and reading	4.09	0.62	3-5	4.01	0.69	3-5
*Require all children to take part in every activity	4.08	0.49	3-5	3.96	0.53	3-5
*Not use too many different materials requiring fine-motor skills	4.07	0.49	3-5	4.08	0.54	3-5
Plan time for sand and water play	4.05	0.77	1-5	4.10	0.82	1-5
*Require completion of all tasks and activities	4.02	0.54	3-5	3.95	0.54	3-5
*Have children spend most of the day in large group activities with the whole class	3.99	0.51	3-5	4.04	0.55	3-5
Use centers as a primary method for teaching	3.97	0.87	1-5	3.97	1.04	1-5

Table 30 Continued

Kindergarten Teachers Should:	Principals Mean	SD	Range	Teachers Mean	SD	Range
*Use privileges, prizes and other rewards to motivate children	3.94	0.52	3-5	4.09	0.60	3-5
Show more interest in HOW children work and play than in what they PRODUCE	3.90	0.94	1-5	3.94	0.99	1-5
*Teach children to be quiet during class time	3.89	0.56	3-5	3.94	0.58	3-5
*Use competition to motivate children during games and activities	3.89	0.61	3-5	3.87	0.64	3-5
Allow children to be alone when they want	3.44	0.96	1-5	3.60	0.86	1-5
Provide major segments of each day for free play	3.41	1.21	1-5	3.76	1.12	1-5
Devote at least half of each day to child-chosen activities	3.00	1.16	1-5	3.16	1.19	1-5
Assume that children are motivated to learn without tangible rewards	2.75	1.17	1-5	2.90	1.22	1-5
Overall	4.05	0.29	3.25-4.89	4.13	0.27	3.46-4.93

[1]On this scale, scores of 1=Least Appropriate answers and scores of 5=Most Appropriate answers.

*The scoring on these questions was reversed to match the appropriateness ratings of the other questions, so that 5=Strongly Disagree/Most Appropriate, 1=Strongly Agree/Least Appropriate, etc.

Please tell us your opinion about what kindergarten teachers should do. Indicate the degree to which you agree or disagree with each statement. Use the following scale: 1 = Strongly Disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly Agree

"strongly agree" was scored as 1, etc., since these items describe inappropriate practices for kindergarten. By reversing the scoring on these items, the appropriateness ratings are consistent with the other items. The mean Principal Developmental Appropriateness score was 4.05 (s.d.=0.29), with a range from 3.25 to 4.89. The mean Teacher Developmental Appropriateness score was 4.13 (s.d.=0.27), with a range from 3.46-4.93. In correspondence with other findings, principals and teachers appeared similar in their responses. The relatively high mean scores at the item level, as well as the high mean and limited range of developmental appropriateness scores suggest that overall, principals and teachers know what is and is not developmentally appropriate, even if this does not always match their practices.

Demographic Information. Some questions about demographic information regarding the schools and the respondents were included on both the principal and teacher questionnaires. Teachers reported an average of 24.9 kindergarten children in their classes (s.d.=5.38), with a range of 3-80. While all of the teachers included in the sample have kindergarten children in their classes, some may have combination or open classes, which account for the lower and upper extremes.

Principals reported an average of 81.9 kindergarten children in the school (s.d.=49.9), with a range of 7-283. According to principals, 28 (12.8%) of the schools had transition kindergarten classes, and 23 (10.6%) had pre-kindergarten readiness classes. A total of 45 (20.6%) schools used either or both of these types of classes.

In general, our survey indicated that kindergarten teachers have had extensive experience in the field. They have taught kindergarten for an average of 9.13 years (s.d.=5.11, range=1-23), and have taught school for an average of 13.80 years (s.d.=6.40, range=2-36). Elementary school principals are also experienced educators, having served as principals for an average of 10.73 years (s.d.=7.87, range=1-39), and having taught, prior to becoming a principal, for an average of 9.59 years (s.d.=4.88, range=1-24).

Both principals and teachers were asked to indicate the levels they have taught, as shown in Table 31. Most of the principals have taught upper elementary (56.4%) and/or secondary grades (71.6%), while many fewer have taught preprimary and primary grade levels (3.7%-24.3%). As expected, most teachers have taught kindergarten before (96.0%). Those teachers who did not choose this category were most likely in their first year as kindergarten teachers. Most teachers have also taught lower elementary grades as well (75.0%), while many fewer have taught upper

Table 31

Levels Taught by Principals and Teachers

Level	Principals N=218 Frequency	% [1]	Teachers N=375 Frequency	% [1]
Preschool	8	3.7	68	18.1
Kindergarten	21	9.6	361	96.3
Grades 1-3	53	24.3	282	75.2
Grades 4-6	123	56.4	76	20.3
Grades 7-12	156	71.6	23	6.1
Coach	67	30.7	4	1.1
Guidance Counselor	13	6.0	0	0
Other Specialist	31	14.2	56	14.9

[1]Percentage figures given are percent of respondents indicating that level. Respondents could choose as many levels as applied, so percentages in this column total more than 100%.

At what levels have you taught?

elementary or secondary grades (20.2% & 6.1%). A similar percentage of principals and teachers worked as other specialists in the education field (14.2% & 14.9%), and many principals have also worked as coaches (30.7%).

Similar results were found when principals and teachers were asked to indicate what certificates and endorsements they held, as shown in Table 32. Over half the principals were certified to teach in secondary grades (51.4%). More principals were certified for the intermediate (32.1%) or middle grades (31.2%) than for early childhood (20.6%). As expected, most teachers were certified for K-4 (97.6%), and a few (4.8%) had Pre-K--4 certification from another state. Most principals held Administrator Level 1 certifications (56.4%), as compared to Level 2 (37.2%) and Level 3 (18.3%).

A similar range is reflected in principals' reports of the highest educational degree attained: 44.4% Master, 48.6% 6-Year Degree, and 7.0% Doctor. Teachers also reported their educational levels: 70.0% Bachelor, 28.3% Master, 1.4% 6-Year Degree, and 0.3% Doctor.

Other demographic information was also obtained from the questionnaires. The average age of principals was 46.7 years (s.d.=7.4, range=29-65), and of teachers was 38.5 years (s.d.=8.3, range=23-65). Most of the principals were male (71.9%), while nearly all of the kindergarten teachers were female (98.9%). The racial distribution of principals was 82.0% white, 15.7% black, and 2.3% other races, while teachers were 89.0% white, 10.4% black, and 0.5% other races.

The study sample was compared to the entire North Carolina population of elementary school principals and kindergarten teachers on the following variables: Level of education, Years of experience as a principal, Years of experience as a teacher, Age, Sex, Race, Mean number of kindergarten students per school, and Mean number of kindergarten students per class. On each of these variables, the sample and statewide distributions were quite similar, suggesting that the study sample was representative of the population of elementary school principals and kindergarten teachers in North Carolina.

Analyses of Combined Measures

In order to examine the relationship between principals' and teachers' beliefs and practices, information from the classroom visits and the questionnaires was compared.

A regression analysis was used to determine the best predictors of the level of developmental appropriateness of kindergarten classrooms. The best model, or set of

Table 32

Certificates Held by Principals and Teachers

Certificates	Principals N=218 Frequency	%[1]	Teachers N=375 Frequency	%[1]
Pre-K-4 (from another state)	2	0.9	18	4.8
K-4 Early Childhood	45	20.6	367	97.9
4-6 Intermediate	70	32.1	59	15.7
6-9 Middle Grades	68	31.2	37	9.9
9-12 Secondary Grades	112	51.4	20	5.3
Curriculum Instructional Specialist Level 1	33	15.1	3	0.8
Curriculum Instructional Specialist Level 2	13	6.0	0	0
Curriculum Instructional Specialist Level 3	10	4.6	0	0
Administrator Level 1	123	56.4	2	0.5
Administrator Level 2	81	37.2	1	0.3
Administrator Level 3	40	18.3	2	0.5
Other	32	14.7	43	11.5

[1]Percentage figures given ar percent of respondents indicating that certification. Respondents could choose as many certifications as applied, so percentages in this column total more than 100%.

.hat certificates and endorsements do you hold?

predictor variables, was composed of four variables: Teachers' developmental appropriateness scores, Principals' developmental appropriateness scores, Presence of a pre-kindergarten readiness class or transition kindergarten class at the school, and Principals' number of years of experience teaching. This model was statistically significant ($F=7.58$, $p<.0001$).

The relationships between the level of developmental appropriateness in the classroom and a variety of other factors relating to the classroom, teacher and principal were also examined. Four groups based on the level of developmental appropriateness (Poor, Low, Fair, Good) were determined by the total score on the ECERS, the primary observational measure of the quality of classroom practices. Classes with a total score below 95 (mean score<3.0) were designated as Poor, classes from 196-127 (mean 3.0-<4.0) were Low, classes from 128-159 (mean 4.0-<5.0) were Fair, and classes scoring 160 and above (mean>=5.0) were Good.

Those classes labelled Good would be considered developmentally appropriate, with practices at the level expected of kindergarten classes in the public schools. Classes in the Fair group were close to developmentally appropriate, while those in the Low and Poor groups were well below acceptable levels of developmental appropriateness. The mean score for classes in each of these groups was computed for ECERS subscales, CKA total, subscales, and enrollment, ASQ scores, percentage of retainees, and certain questionnaire items. These findings are presented in Table 33.

Within the observational measures (ECERS and CKA), it seems that the lower-scoring classes were weaker in all areas across the board, rather than having specific areas of deficiency. In general, scores increased on all these measures as the level of quality increased. There was little difference between quality groups, however, in the number of students in the class (CKA-current enrollment), the percentage of children retained in each class, or mean scores on the ASQ.

Many items on the questionnaires also showed little relationship to classroom quality groups. There was a very slight increase in the Principal Developmental Appropriateness score and in the educational level of the principal as classroom quality increased. The Teacher Developmental Appropriateness scores increased as quality levels increased, except that schools in the Poor category had slightly higher scores than those in the Low category. Teachers of Good classes had slightly more education than teachers of classes in the other three quality categories. These findings suggest that while most kindergarten practices were clearly less appropriate in the lower quality

Table 33

Means on Selected Items According to Classroom Level of Developmental Appropriateness

	Developmental Appropriateness Group							
	Poor		Low		Fair		Good	
Item	Mean	SD	Mean	SD	Mean	SD	Mean	SD
ECERS Subscales	(N=5)		(N=41)		(N=40)		(N=26)	
Personal Care	1.92	0.72	3.66	0.59	3.78	0.83	4.37	0.71
Furnishings	2.40	0.32	3.80	0.72	4.74	0.69	5.66	0.53
Language/ Reasoning	3.25	0.56	3.74	0.71	4.99	1.05	6.28	0.55
Fine/Gross Motor	4.00	0.39	4.38	0.54	5.05	0.59	5.56	0.56
Creative	2.51	0.65	3.58	0.47	4.59	0.59	5.48	0.59
Social Development	1.76	0.17	2.82	0.60	4.10	0.93	5.02	0.81
CKA	(N=5)		(N=41)		(N=40)		(N=26)	
Activities	13.20	1.30	21.63	3.35	25.80	3.15	29.15	2.11
Materials	8.60	1.52	13.34	2.58	14.98	2.42	17.42	2.96
Total	21.80	1.79	34.98	4.47	40.78	3.98	46.58	4.03
Current Membership	23.20	6.91	24.76	3.10	24.62	3.70	25.42	2.25
ASQ Class Mean	(N=4)		(N=25)		(N=13)		(N=16)	
	1.50	0.10	1.71	0.13	1.68	0.11	1.59	0.12
% Retained in Class	(N=4)		(N=25)		(N=13)		(N=16)	
	0.01	0.02	0.07	0.10	0.07	0.09	0.07	0.14
Per Pupil Expenditure	(N=5)		(N=41)		(N=40)		(N=26)	
	2893	176	3077	244	3137	264	3076	305
Principal Questionnaires	(N=4)		(N=34-37)		(N=33-37)		(N=19-24)	
Developmental Appropriateness Score	3.91	0.22	4.04	0.26	4.13	0.25	4.27	0.33
Years as Principal	12.3	14.6	10.2	8.3	9.3	7.3	11.4	6.7
Years Taught Before Becoming Principal	5.5	3.1	9.7	3.9	10.1	6.1	9.2	5.5
Highest Educational Degree*	2.25	0.50	2.59	0.61	2.73	0.72	2.80	0.52
Number of Kindergartners at School	112.3	74.0	91.4	54.8	95.5	50.6	95.9	55.9

Table 33 Continued

	Developmental Appropriateness Group							
	Poor		Low		Fair		Good	
Item	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Teacher Questionnaires	(N=4)		(N=35-37)		(N=34-35)		(N=26)	
Developmental Appropriateness Score	4.12	0.30	4.03	0.20	4.17	0.22	4.29	0.29
Years Taught Kindergarten	11.3	6.7	9.0	5.6	9.4	5.5	10.3	5.2
Years Taught School	15.5	3.8	13.8	7.2	15.3	8.1	15.4	6.8
Highest Educational Degree*	1.25	0.50	1.22	0.42	1.20	0.41	1.46	0.65

*Note: The scale used was 1=Bachelor, 2=Master, 3=6-Year Degree, 4=Doctor.

classes, these differences were not due to factors such as class size, number of years teaching, or the number of children retained.

Similar conclusions can be drawn by examining the correlations among items from the ECERS, CKA, Principal and Teacher Questionnaires, ASQ scores, and percentage of retainees. ECERS subscales and CKA areas tended to be very closely related. For example, significant correlations were found between the Language subscale of the ECERS and the Language area on the CKA (0.67, $p<.0001$), between the Social Development subscale on the ECERS and the Social area on the CKA (0.62, $p<.0001$), and for the ECERS overall mean with the Activities subscale (0.82, $p<.0001$) and with the Materials subscale (0.64, $p<.0001$). The overall score on the ECERS was significantly correlated with all of the individual subscales, as well as with each of the areas, subscales, and total score on the CKA. These findings suggest that these two observational instruments were measuring related aspects of the quality of kindergarten practices. Both the ECERS overall mean and the CKA Total were **not** significantly correlated with the current enrollment, the mean ASQ scores, or the percentage of children retained, suggesting that appropriate practices were not associated with these factors.

Both the Principal and Teacher Developmental Appropriateness scores were significantly correlated with the ECERS mean (0.39, $p<.0002$, and 0.41, $p<.0001$), but the Principal and Teacher Developmental Appropriateness scores were **not** significantly related to each other. The Teacher Developmental Appropriateness score was also significantly related to the CKA Total (0.35, $p<.0003$), the CKA Activities subscale (0.32, $p<.0009$), and the CKA Materials subscale (0.28, $p<.004$). A similar relationship held for the Principal Developmental Appropriateness score with the CKA Total (0.35, $p<.0006$), the CKA Activities (0.30, $p<.0038$), and the CKA Materials (0.32, $p<.0018$).

In addition, there was a significant relationship between Teacher Developmental Appropriateness scores and children's ASQ scores (-0.29, $p<.0343$). This correlation suggests that as teachers' knowledge of appropriate practices increased, so did children's happiness with school (lower ASQ scores represent greater happiness). In sum, these findings suggest that both teachers' and principals' **knowledge** of appropriate practices was related to the quality of **actual practices** in the classroom.

DISCUSSION

There is a wide range of quality and appropriateness of kindergarten classes in North Carolina. One of the main goals of this study was to determine the developmental appropriateness of North Carolina kindergartens. Using a standardized observational measure of quality and appropriateness, we found a wide range of variation among the 103 classes observed. About 20% of the classes observed met the criterion we set as developmentally appropriate: a mean item score of 5 or higher on the Early Childhood Environment Rating Scale (ECERS). Another 20% of sample classes scored within half a point of 5, a reachable distance. That is, with a little more attention to certain areas (e.g., less large-group instruction, more language interaction, more variety in centers, more child choice), a class that fell within this 20% could soon reach the criterion.

Both the mean and median quality scores, however, were well below 5. Over 60% of the observed classes rated well below the level considered developmentally appropriate. This finding is especially troublesome considering that most teachers, because of the observer's presence, were undoubtedly conducting their classes as best they knew how. Children in these classes clearly are not receiving the kind of experience that would be best for them in their important first year of school. To help understand the differences between classes with high, medium, and low scores, we have written descriptions of a child's day in three hypothetical kindergarten classes representing a range of quality. (See Appendix M.)

The developmental appropriateness criterion used in this study was realistic. Noting that 20% of the randomly selected classes were developmentally appropriate and that most of the exemplary schools also scored above 5, it is clear that our standards of developmental appropriateness can be met. Many classrooms were able to reach the goal, even some that may not have had optimal space or materials. Achieving a score of 5 on the ECERS is possible.

Differences in the quality of kindergarten classes were not related to region of the state or size of the school. These good kindergarten classes are not clustered in any specific locations, but are scattered throughout the state. Some are in urban areas, others rural. Some are in large schools, others small. This distribution of good kindergarten teachers can be capitalized upon when planning new interventions to improve the quality of kindergarten. The spread of quality classes may reflect the Legislature's commitment to even funding for schools throughout the state.

The remedy for poor quality kindergartens is not found in any one particular aspect of the kindergarten program; weaknesses were across-the-board. Classes with low overall ECERS scores had low scores on each of the six subcategories; classes that scored well overall also tended to score well on all subcategories. However, across all classrooms, teachers are doing better in some areas than in others.

The motor and language areas were taught most appropriately, although the mean scores were still below 5, the criterion set as developmentally appropriate. Although the provision of a variety of fine motor activities (e.g., puzzles, beads, Legos, scissors) was fairly good overall, the provision of gross motor equipment (e.g., large blocks, child-sized PAR course) was poor. Playground equipment is particularly inadequate, often nonexistent, in bad repair, or too large for kindergarten youngsters. In the area of language experience, the use of receptive and expressive language activities (e.g., books, records, puppets, and dramatic play) was better than reasoning activities (e.g., sequence cards, sorting games) and informal language experiences (e.g., teacher-child conversations and social interactions).

No single mean item score within the furnishings category met the criterion for developmental appropriateness. The provision of furnishings for learning activities (e.g., sand/water tables, woodworking benches, easels, art tables) was especially low. In the creative activities area, the music/movement item was the highest-rated item on the entire scale, although some individual classes still received low scores. Opportunities were quite limited in most classes for creative activities in art, dramatic play, and sand/water play, and these are certainly areas to target for improvement.

Personal care routines and social development were the least appropriate areas. Little emphasis was placed on personal hygiene. Occasionally, children were even discouraged from washing hands, an important self-help skill for kindergartners and a method for illness prevention. The area of social development needs the most improvement overall. Three items which especially need attention are cultural awareness, space to be alone, and free play. Cultural awareness was the least appropriate item of all, with little evidence of ethnic and racial variety in classroom materials or teaching. This is an appalling lack considering the high percentage of minority children in North Carolina.

It is important to keep in mind, however, that even though some areas are taught more appropriately than others, no one area met the criterion for developmental

appropriateness overall. Even those types of activities within each area that met the criterion when averaged across all schools were taught inappropriately in some classes. While certain types of activities may need more emphasis in promoting developmentally appropriate practices, none are being carried out appropriately across the board.

The lack of region and size effects on the ECERS quality rating indicates that thes factors are not related to kindergarten quality. The level of developmental appropriateness also is not related to many variables one might predict: class size, number of retentions, teacher's education or experience, principal's education or experience, or children's attitudes toward school. In fact, kindergarten children tended to have very positive attitudes overall, even though many of them were attending classes of low quality.

Other indicators of inappropriate practices were frequently observed: long periods of whole-group instruction, too many dittos and worksheets, and an overwhelming predominance of teacher-led instruction. Whole-group instruction is not in line with the way 5-year-olds learn best--through active learning. Teachers also cannot individualize instruction when working with the entire class. In several instances we observed whole-group activities for an entire morning. The attention span of kindergartners is limited to 20-30 minutes of group instruction at one time, and whole-group teaching should be limited to less than 1/3 of the day.

We also saw frequent use of ditto sheets or worksheets. While occasional use of worksheets can provide variety or interest in a topic, teachers too often rely on these school-produced materials rather than providing active and concrete learning experiences. In addition, the high number of classes that were primarily teacher-led as opposed to child-led indicates that children have limited choices during the kindergarten day. Curiosity and independence are fostered by allowing choices, such as choosing a center, choosing their own partners for activities, choosing which book to have read aloud. Teacher direction of all activities stifles a child's innate interest and curiosity.

Principals and teachers both think that social skills development is the most important aspect of kindergarten, yet our observations show that the social skills area needs the most improvement. Our survey results indicated that both principals and teachers consider social skills development the most important aspect of kindergarten. This belief is not carried out in the classroom, however, according to our observational information. Social development was the lowest rated area on the ECERS. Multi-

cultural awareness was particularly low, and free play opportunities were also very limited.

Disparity also exists between educators' beliefs about the importance of parent involvement in kindergarten and the amount of parent involvement actually seen. Most teachers would like for parents to be more active, but that is often not the case.

Kindergarten teachers and principals of schools with kindergartens are quite knowledgeable about developmentally appropriate practices for 5-year-olds. On a set of questions measuring attitudes and knowledge about kindergarten practices, most teachers and principals scored highly despite the large number of classes scoring below criterion on the observational measures. Within a group they differed mainly in the strength of their agreement with appropriate developmental procedures. Kindergarten teachers are also quite experienced, having taught kindergarten for an average of 9 years. Principals reported little difficulty in finding qualified kindergarten teachers. Both teachers and principals appropriately believe that a kindergarten teacher should have specialized training in early childhood education or child development, although few principals themselves actually have this background.

Higher levels of teacher and principal knowledge about developmentally appropriate practices are predictive of higher quality classrooms. However, because the overall scores are quite high, this relationship may have more to do with the strength of their beliefs in these practices, rather than simply knowing what is and is not appropriate. Increasing their knowledge or their commitment to developmentally appropriate practice may lead to better teaching.

Equally likely is the possibility that translating this knowledge into day-to-day practice is the obstacle. Some teachers are able to accomplish this task while others appear to need help. Other teachers and inservice sessions are reported by kindergarten teachers as especially helpful in learning about developmentally appropriate ways to teach kindergarten. Methods such as a mentor teacher system would appear to be useful. While inservice sessions are also helpful, the content of the sessions should be geared toward implementation of developmental principles, emphasizing practices and activities that make kindergartens better learning environments for young children.

The focus on developmental appropriateness should also be targeted towards teacher assistants. As the second most important adult in kindergartners' education, assistants could contribute significantly to the improvement of the overall program quality. In the observed classrooms,

assistants were involved in all aspects of kindergarten teaching: one-to-one instruction, leading small and large groups, materials preparation, and clerical work. Since they are indeed participating in these important aspects of the class, their knowledge and use of appropriate practices should be enhanced as well as that of the teachers.

From both teachers' and principals' perspectives, administrative policies have a great deal of influence on kindergarten programs. Administrative policies affect the materials available for classroom use, specific classroom practices, and skills required for promotion to first grade. We know that some policies are specific to an individual school and others are set by the district. School administrators, particularly principals, need to consider how administrative policies will influence the developmental appropriateness of kindergarten classrooms. Current policies and future changes in policies should be carefully examined for their potential impact on kindergartens.

The use of retention and transition classes is far too frequent in North Carolina kindergartens. A follow-up of the spring sample showed that 8.6% of these kindergartners were not promoted to the first grade, either repeating kindergarten or being placed in a transition kindergarten class. Reasons typically given for retaining a child were a lack of specific cognitive or social skills, or generally delayed development, but also often included family considerations, small physical size, or young age.

Boys were retained somewhat more frequently than girls, and younger children more often than older children. These results are similar to findings of many other studies of retention in the early grades. Changing the age of kindergarten entry will not alleviate this disparity in retention by age because there will always be relatively younger and relatively older children in any class, regardless of entry cutoff date. In addition, the effect of age operates across all ages of kindergartners, not just the youngest quartile. Standards for promotion to first grade appear to be relative to the group of children judged, and changing the entry age would be expected to result in a corresponding change in standards.

Regardless of whether the non-promotion is due to a decision to retain in a regular kindergarten class or to move the child to a transition class, this rate (8.6%) is far too high. Research evidence on this issue is almost uniformly negative. In a meta-analysis of several studies of grade retention, Holmes and Matthews (1984) concluded that children who are retained in grade make less progress than similar children who are promoted to the next grade. Non-promoted children score less well on personal adjustment measures and achievement. A review of the research on

transitional placements also shows its lack of effectiveness (Gredler, 1984).

Over 20% of schools used practices, besides retention in grade, adding an extra kindergarten year for some children: either the year before entering kindergarten (pre-kindergarten readiness classes) or the year after (transition kindergarten classes). Retained children were either retained in kindergarten for another year or sent to a transition kindergarten class, an increasingly frequent "alternative" to retention. To our knowledge, no one in the state has data on the number of transition kindergartens in existence. In our questionnaire sample of 218 principals, 13% reported at least one transition kindergarten class in their school. In our spring observation sample, 21% of those 53 schools had a transition class. The true proportion of transition classes is probably somewhere in between these two figures. In addition, 11% of the principals surveyed had pre-kindergarten classes at their schools for children eligible for kindergarten, but not considered ready yet. We know very little about how these classes are being taught, and we nothing about their effectiveness for the children.

Although the presence of a pre-kindergarten readiness class or transition kindergarten class is predictive of higher quality kindergarten classes, this may be indicative of the principal's desire to provide appropriate experiences for young children. That desire is reflected in more developmentally appropriate kindergarten, as well as the offering of special classes, pre-kindergarten or transition, even though the special classes per se may not be the best practice for young children.

This frequent use of retention in regular kindergarten and transition classes is quite expensive. With approximately 85,000 children in kindergarten, an 8.6% retention rate statewide translates into 7,310 kindergarten children being held back in any given year in the state. With state expenditures conservatively estimated at $3,000 per kindergartner per year, this represents a total of $22 million per year in state funds and an estimated $30 million overall when local and federal funds are included. This quite large expenditure to support a practice which is of little or no value should be addressed directly by the Legislature or State Board of Education.

It is particularly interesting to note that 33 (62%) of our 53 spring sample classrooms retained either no children or only one child. In these classes, the overall retention rate was a more reasonable 1.7%. A reduction in the statewide average retention rate to 1-2% would result in substantial savings to the state and would furthermore lessen the negative impact of this practice on children.

Societal changes, especially increases in preschool attendance, are influencing North Carolina kindergartens. Teachers and principals report "changes in society" and "preschool curriculum" as important influences on their own kindergarten programs. About 64% of North Carolina mothers of 4-year-olds are employed (Clifford, et al., 1988); thus many children are in group care environments before they come to kindergarten. Most teachers in our sample report that kindergartners, as a result of these preschool experiences, are much better prepared than children in the past, especially in the areas of academic skills and social skills development. This impression of kindergartners as better prepared or more sophisticated learners is undoubtedly influencing kindergarten content and practices.

A majority of teachers and principals believe that public school programs should be available for 4-year-olds. This view is probably related to their perceptions that kindergartners benefit from preschool programs. About half think that programs should be offered for all 4-year-olds and another one-third believe that programs should at least be offered for disadvantaged 4-year-olds. The main obstacles to offering such programs appear to be funding and space, not attitudes or knowledge. Only 25% of the schools represented in our survey would have the physical space necessary to house a class for 4-year-olds.

RECOMMENDATIONS

Based on both the results of analysis of the data collected for this study and our combined experience as we have observed in the sample classrooms, read the many comments by teachers and principals, and talked to literally hundreds of people across the state, the following recommendations are offered to assist in making North Carolina kindergartens the very highest quality possible.

Provide every school serving kindergartners with a set of materials which outline developmentally appropriate practices. There is general agreement within the profession about what constitutes developmentally appropriate practice. Materials such as the National Association for the Education of Young Children's booklet titled Developmentally Appropriate Practices for Kindergarten (Bredekamp, 1986) and program accreditation materials, the Early Childhood Environment Rating Scale (used in this study), and other descriptive materials would provide each school with a point of departure for a self-examination of kindergarten practices.

Provide training for kindergarten teachers in implementing developmentally appropriate educational practices. Teachers and principals had relatively high scores on knowledge and attitudes about developmentally appropriate practices. However, the overall poor implementation of these practices in the classroom indicates that the transition from knowing to doing is a difficult one. Specific training in how to implement best practice for kindergarten children is clearly needed. A bright spot in the findings is that we have literally hundreds of kindergarten teachers who have been able to put these concepts into practice. A method should be developed which takes advantage of these outstanding teachers to help others implement appropriate practices in their classrooms as well. Teacher responses to our surveys and interviews indicated a preference for learning from other teachers.

Provide training for principals on both identification and implementation of developmentally appropriate practices for the youngest children in school. While the study results indicate that principals have relatively good knowledge and attitudes about appropriate kindergarten practices, those with the highest scores tended to have the best classrooms. Translation of this knowledge into practice is quite difficult for most schools. Therefore, we recommend two specific types of training. First, principals should be trained in assessment of classroom environments using one or more of the available instruments so that they can match teachers of outstanding programs with those in need of help and can identify areas which need attention. (Examples of instruments are the program accreditation

materials developed by the National Association for the Education of Young Children and the Early Childhood Environment Rating Scale used in this study). A related issue is the fit between what is assessed on the currently required Teacher Appraisal Instrument (TAI) and the generally agreed upon view of what is developmentally appropriate practice in kindergartens. The TAI is geared to appropriate practice for older children, not for the young children in kindergarten. Adjustments need to be made in the TAI to accommodate these differences. Then, additional training should emphasize methods for implementing (not simply describing) good practices for young children. Principals should understand the most effective ways to direct resources in order to implement high quality kindergarten programs. Training in effective use of teacher assistants should also be included in principal training sessions.

Require training of all teacher assistants in kindergarten classrooms. We found great variation in the use of teacher assistants in the classrooms observed. In a few districts, training was systematically provided for all teacher assistants. Where this occurred, or where schools had provided their own training, aides were able to provide a broader range of services. It is unrealistic to expect that completely untrained personnel can provide the type of assistance needed by kindergarten teachers. In the long run the state should require teacher assistants to have either a Child Development Associate Credential or a degree from a community college.

Ensure that resource people available to kindergarten teachers are knowledgeable about the implementation of developmentally appropriate practices for the youngest children in our public schools. Principals in the schools we observed and those we surveyed typically had little or no training in educating kindergarten-aged children. Their training was more likely to have focused on secondary or, at best, upper elementary pupils. In addition, kindergarten teachers rarely had access to supervisory staff at the central office level who were knowledgeable about children of this age. Particularly as North Carolina schools begin to serve even younger children, every school district should have at least one supervisory level staff member with training and experience in educating children below age 6.

Establish exemplary teacher positions in each school district to provide the impetus for improvement in kindergarten practice and to guide the implementation of programs for even younger children. Establish a $5 million fund to support an exemplary teacher for every 20 kindergarten teaching positions in the state. These teachers would be provided released time to work with other teachers in their school district, authority to form

kindergarten study groups, and limited funds to travel outside the district for inservice in other locations. Other teachers would also be given released time to work in the exemplary teachers' classrooms to acquire needed skills. Exemplary teachers would be paid a special bonus of 10% of their salaries for the extra responsibilities. The estimated cost would be more than offset by the savings made by reducing retention rates.

Encouraging principals and supervisory personnel to make use of these highly skilled teachers in their inservice programs, and providing these teachers with blocks of time to work with other teachers in their own school or other schools in the district could dramatically improve kindergarten practices across the state. This overall approach could be utilized with very little additional funding, and most of the costs would be recouped when kindergarten retention rates drop.

Permit the use of textbook funds to purchase developmentally appropriate learning materials for use in kindergarten classes. Teachers reported having to spend their own money to purchase specialized materials for their classrooms because of restrictions on use of state funds. While these restrictions may well be appropriate for programs for older children, they inhibit the best use of resources for kindergartners. Developmentally appropriate materials and equipment, as well as appropriate activities, are needed to make kindergarten classes truly enriching for our young children. In addition, culturally sensitive materials should be available in every classroom.

Fund a supplemental appropriation to upgrade playgrounds for young children. Development of gross motor skills is particularly important for kindergartners; however, playgrounds were found to be generally inadequate for young children. Typically, equipment was designed for much older and more mature children. Equipment that was available was often in poor repair and unsafe.

Reduce retention rates in kindergarten to 2% or less. Few children should be retained in their first year of school. Not only can this harm their self-esteem and damage their motivation to learn, but evidence strongly suggests that retention does not improve children's academic achievement. Retained children appear to be no different in terms of first grade readiness than similar children who were not retained. Such a reduction would result in savings of some $17 million annually in state expenditures.

Conduct a special study of the use of retention, pre-kindergarten, and transition classes in North Carolina schools to determine the extent and effects of these practices. The current study was not designed to examine issues at the level of individual children. However, the widespread use of retention for children in their first year of school raised particular concerns for us. The growing practice of diverting children into pre-kindergarten classes before entry into the regular kindergarten program amounts to retention before the fact. This practice seemed to be occurring without the same precautions that would be used before placing a child in other special classes (such as special education classes), but has the same potential consequences for the children. Similarly, a much greater than expected use of transition kindergarten classes was observed. In two of the classes observed, approximately half of the children were moved into transition classes and thus, in effect, retained. Previous research provides little or no support for such experiences for young children. A careful examination of these two recently introduced practices is much needed. A more thorough documentation of the extent of these practices and study of their effects on children should be conducted with a report back to the General Assembly in the next full session.

Ensure that programs are developmentally appropriate and not just extensions of elementary school downward, as the State considers the role of public schools in meeting the needs of 3- and 4-year-old children. Principals and teachers alike think that schools should serve younger children. Teachers overwhelmingly indicated that preschool programs help prepare children for school. Many school districts are already operating programs for 4-year-olds or are considering beginning such programs. There was some sentiment that adding even younger children could reduce the pressure for kindergartners to be like older children and allow teachers freedom to provide more appropriate programs for 3-, 4-, and 5-year-olds. However, teachers and principals have concerns about adding this new responsibility. Only one of four principals indicated that there was room in their school to add such programs. Teachers were concerned that there would be pressures to simply move the curriculum down to even younger children--a problem they felt had occurred for 5-year-olds in kindergarten. These concerns are particularly relevant since the first pre-kindergarten programs will be targeted toward at-risk children who are least able to respond to the regular school curriculum.

CONCLUDING REMARKS

This study has documented the presence of many exemplary kindergarten classes in North Carolina, but also the predominance of classes that fall well below standards of developmental appropriateness. The widespread use of retention and transition kindergarten classes was also noted. These findings raise significant questions about the education received by our youngest children. Recommended strategies for correcting these problems do not entail large expenditures of funds. They do, however, require a significant commitment of attention and effort by legislators, administrators, and educators.

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Appendix A

Advisory Board--Kindergarten Study

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The 37 Items of the
EARLY CHILDHOOD ENVIRONMENT RATING SCALE

PERSONAL CARE ROUTINES
1. Greeting/departing
2. Meals/snacks
   OR ◆2. (Infants)
3. Nap/rest
4. Diapering/toileting
5. Personal grooming

FURNISHINGS AND DISPLAY FOR CHILDREN
6. For routine care
7. For learning activities
   OR ◆7. (Infants)
8. For relaxation and comfort
9. Room arrangement
   OR ◆9. (omit for Infants)
10. Child related display
    OR ◆10. (Infants/toddlers)

LANGUAGE-REASONING EXPERIENCES
11. Understanding of language
12. Using language
13. Using learning concepts
14. Informal use of language
    OR ◆14. (Infants/toddlers)

FINE AND GROSS MOTOR ACTIVITIES
15. Perceptual/fine motor
16. Supervision: fine motor activities
17. Space for gross motor
18. Gross motor equipment
19. Scheduled time for gross motor activities
20. Supervision: gross motor activities

CREATIVE ACTIVITIES
(omit for Infants)
21. Art
22. Music/movement
23. Blocks
24. Sand/water
25. Dramatic play
26. Schedule
27. Supervision: creative activites

SOCIAL DEVELOPMENT
28. Space to be alone
29. Free play
30. Group time
    OR ◆30. (omit for Infants)
31. Cultural awareness
32. Tone
33. Provisions for exceptional children

ADULT NEEDS
34. Adult personal area
35. Opportunities for professional growth
36. Adult meeting area
37. Provisions for parents

Thelma Harms & Richard M. Clifford
Teachers College Press
1980

Items 33-37 were not rated as part of the Kindergarten Study.

SAMPLE ITEMS -- EARLY CHILDHOOD ENVIRONMENT RATING SCALE

Item	Inadequate 1 2	Minimal 3 4	Good 5 6	Excellent 7
Personal Care Routines				
5. Personal grooming	Little attention paid to personal grooming (Ex. hand washing, hair combing, toothbrushing).	Inconsistent attention paid to grooming needs: hand washing, toothbrushing, etc., not a regularly scheduled part of the day.	Scheduled times for grooming: teeth brushed after meals, hands washed at meal times and after toileting. Grooming routines used to develop positive self concept. Extra clothes to change children.	Each child has toothbrush, etc., grooming is part of educational program to promote good health care habits. Independence encouraged with proper supervision.
Furnishings and Display for Children	**1 2**	**3 4**	**5 6**	**7**
7. For learning activities Basic materials: tables and chairs, open shelves for storage of play materials, easel or art table.	Insufficient number of *basic* learning activity furnishings.	Sufficient number of *basic* learning activity furnishings in good repair.	Basic learning activity furnishings plus woodwork bench and sand/water table. Easel or art table used daily, woodwork bench and sand/water table used weekly (woodwork bench may be omitted for toddlers and 2's).	Full range of learning activity furnishings regularly used plus provision for appropriate independent use by children (Ex. through picture-word labeling or other guidance).
Language-Reasoning Experiences	**1 2**	**3 4**	**5 6**	**7**
12. Using language (expressive language) Activities. Puppets, finger plays, singing, rhymes, answering questions, talking about experiences, interpreting pictures, child dictated stories, dramatic play.	No scheduled activities for using language (Ex. no children's planning time, talking about drawings, dictating stories, show 'n tell, etc.)	Some scheduled activities for using language (Ex. show 'n tell), but child language not encouraged throughout the day.	Many scheduled activities for using language available during free play and group times, but not planned specifically for expressive language development	Daily plans provide a wide variety of activities for using language during free play and group times. Opportunities to develop skills in expressing thoughts are part of a language development plan based on individual needs. Teachers encourage expressive language throughout the day

Fine and Gross Motor Activities	1	2	3	4	5	6	7
16. Supervision (fine motor activities)	No supervision provided when children play with perceptual/fine motor materials.		Supervision only to protect health and safety or stop arguments.		Child given help and encouragement when needed (Ex. to finish puzzle, to fit pegs into holes; shown how to use scissors, etc.). Teacher shows appreciation of children's work.		Everything in 5 plus teacher guides children to materials on appropriate level for success. Teacher plans learning sequences to develop fine motor skills (Ex. provides children with puzzles of increasing difficulty, stringing of large beads before small beads).
	1	2	3	4	5	6	7
Creative Activities							
21. Art	Few art materials available; regimented use of materials (Ex. mostly teacher directed projects). Art materials not readily available for children to use as a free choice activity.		Some materials, primarily drawing and painting, available for free choice, but major emphasis on projects that are like an example shown.		Individual expression and free choice encouraged with art materials. Very few projects that are like an example shown.		Variety of materials available for free choice, including three dimensional materials (Ex. clay, art dough). Attempt to relate art activities to other experiences.
Social Development	1	2	3	4	5	6	7
31. Cultural awareness	No attempt to include ethnic and racial variety in dolls, book illustrations, or pictorial bulletin board materials. All toys and visible pictures are of one race only.		Some evidence of ethnic and racial variety in toys and pictorial materials (Ex. multi-racial or multi-cultural dolls, books or bulletin board pictures of varied countries and races).		Cultural awareness evidenced by liberal inclusion of multi-racial and non-sexist materials (Ex. dolls, illustrations in story books, and pictorial bulletin board materials).		Everything in 5 plus cultural awareness is part of curriculum through planned use of both multi-racial and non-sexist materials. (Ex. including holidays from other religions and cultures, cooking of ethnic foods, introducing a variety of roles for women and men through stories and dramatic play).

CHECKLIST OF KINDERGARTEN ACTIVITIES

School_____ Observer_____
ID:_____ Time obs. began:_____
Date_____ Time obs. ended:_____
Number of students present_____ Current enrollment:_____
black__ white__ other__

Score these items on a scale of:

N = no/less than half the time
Y = yes/at least half the time
N\A = Not Applicable

LANGUAGE

__ Teacher models good language.

__ Teacher holds conversations with children.

__ Teacher expands children's utterances.

__ Children are encouraged to use language.

__ Non-standard English or native speech patterns accepted.

COGNITIVE

__ Teacher reads a story/stories aloud.

__ Teacher listens to children read.

__ A variety of reading materials are used (e.g. books, magazines, workbooks).

__ A variety of writing materials are used (e.g. markers, crayons, pencils).

__ Educational activities are presented as games (i.e., letter games, number games, etc.).

__ Math manipulatives are used.

__ Teacher helps children make observations about weather, seasons, calendar.

__ Children solve problems/experiment with solutions themselves.

SOCIAL

__ Children have some free choice activities with peers (excluding recess).

__ Children engage in imaginative play (i.e., storytelling, music, singing, dramatic play).

__ Children are encouraged to help/cooperate/negotiate in solving their own problems.

SELF-REGULATION

__ Children are allowed to make choices about activities.

__ Teacher sets clear limits.

__ Teacher points out rule violations quietly, yet firmly.

__ Children are redirected to more acceptable activities when misbehaving.

SELF-ESTEEM

__ Multicultural materials and/or activities are present.

__ Each child is accepted by teacher.

__ Activities and games are non-competitive.

DISPOSITION TO LEARN

__ Children appear enthusiastic/to be having fun.

__ Children show pride in task completion.

__ Children are given time to complete activities.

__ Teacher challenges children without "pushing."

__ Children have opportunities for music, dance, or art.

__ Learning activities are relevant to these children; concrete materials used.

PHYSICAL

__ Activities promoting fine-motor skills are used.

__ Activities promoting gross-motor skills are used (indoors or out).

__ Children can express themselves freely and loudly during gross motor play (including recess).

SETTING AND MATERIALS

Indicate materials present in the room, whether or not used during your observation (Y or N).

__ Sand play
__ Easel & Paints
__ Blocks
__ Dress-up clothes
__ Playdoh/clay
__ Fingerpaint
__ Flannel board
__ Children's work displayed
__ Live pet(s)
__ Plant(s)
__ Measuring device(s)
__ Water play
__ Record(s)
__ Computer
__ Picture cards
__ Stringing beads
__ Puzzle(s)
__ Cuisennaire rods
__ Tape-book(s)
__ Play figure(s)/animal(s)
__ Musical instrument(s)

__ Basal readers. If yes, which ones?

__Worksheets/ditto sheets. If yes, describe (how many, topics...)

__Workbooks. If yes, describe.

Rank-order how the time was spent (1=most, 3=least)

__ Large group __ Small group __ Alone/at desk

Were the activities mostly teacher-led or child led?

__ Teacher-led __ Child-led

Did the activities seem to you more like "work" or like "play"?

__ Play __ Work __ Some of both

How did the teacher's aide spend time in each of the following activities?

F = Frequently, S = Somewhat, N = Not at all/very little

___ Involved in activities apart from the class

___ Helping prepare materials, pass out materials, etc. - little interaction with children

___ Interacting with children in basic routines - e.g. lining up, being quiet, going to lunch, etc.

___ Working with a small group of children

___ Working with an individual child (one-on-one)

___ Working with or leading the whole class

Describe an example of the best educational practice you saw during your observation (especially related to the issue of developmental appropriateness).

Describe an example of poor practice (especially related to the issue of developmental appropriateness).

Spring Version

Teacher Interview
School_____ Observer_____
ID_____ Date_____

Standard probe to use after perfunctory answers:
[Anything else?]

1. a) How many children are in membership in your class?

b) How many years have you taught kindergarten (including this year)?

2. What helps you be a good kindergarten teacher here?
[What factors within the school system promote good teaching?]

3. What keeps you from doing an even better job as a kindergarten teacher?
[What factors within the school system interfere with good teaching?]

4. How do you handle discipline in your class?
[What about punishment?]
[What about reward?]

5. a) What is the process for supervision of teachers at your school?

b) How well do you think this process works?

6. a) How many children did you retain last year?

b) Were any children in this class retained last year?
How many?
What are their birthdates?

7. a) What process is used for deciding whether a child is ready for first grade?

b) Are there specific procedures and timelines which must be followed to retain a child? What are they?

c) Are these procedures usually followed for every child? Why or Why not?

8. a) How many children are you recommending for retention this year?

b) What are their birthdates, and what is their sex?

c) Why are you recommending them for retention?

9. How and when are children with special learning problems identified?

10. Do you think a public program for 4 year olds would help prepare children for kindergarten?
[Why or Why not?]

Fall Version

Teacher Interview
School_____ Observer_____
ID_____ Date_____

Standard probe to use after perfunctory answers:
[Anything else?]

1. a) How many children are in membership in your class?

b) How many children were in membership in your class last year during the last month of school?

c) How many years have you taught kindergarten (including this year)?

2. What helps you be a good kindergarten teacher here?
[What factors within the school system promote good teaching?]

3. What keeps you from doing an even better job as a kindergarten teacher?
[What factors within the school system interfere with good teaching?]

4. How do you handle discipline in your class?
[What about punishment?]
[What about reward?]

5. How much time does your aide spend in each of the following activities? (Much, Some, Little/None)

a) Involved in activities apart from the class (e.g. copying materials, making dittoes, etc.)

b) Helping prepare materials, pass out materials, etc. (Little interaction with the class)

c) Interacting with children in basic routines (e.g. lining up, being quiet, going to lunch)

d) Working with a small group of children

e) Working with an individual child (one-on-one)

f) Working with / Leading the whole class

g) Any other activities?

6. What type of training has your aide had for this position?

7. a) What is the process for supervision of teachers at your school?

b) How well do you think this process works?

8. a) How many children did you retain last year?

b) Why did you recommend them for retention?

c) Were any children in this class retained last year?
How many?
What are their birthdates and their sex?

9. a) What process is used for deciding whether a child is ready for first grade?

b) Are there specific procedures and timelines which must be followed to retain a child? What are they?

c) Are these procedures usually followed for every child?
Why or Why not?

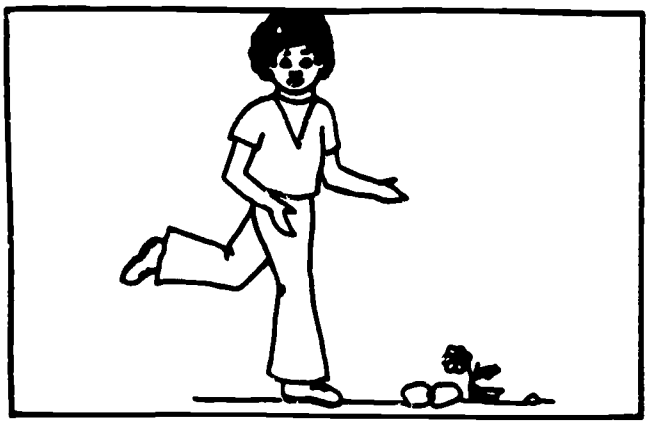
10. How and when are children with special learning problems identified?

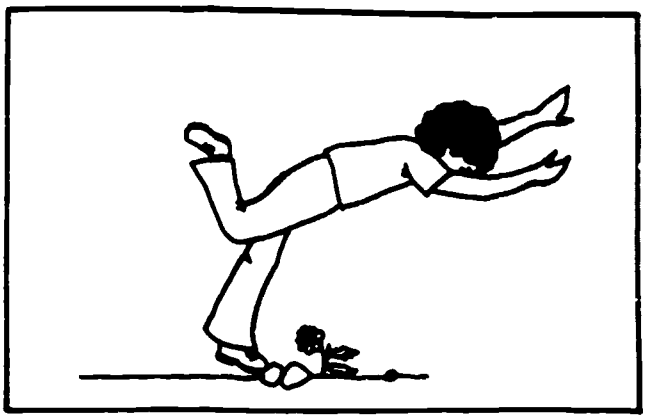
11. Do you think a public program for 4 year olds would help prepare children for kindergarten?
[Why or Why not?]

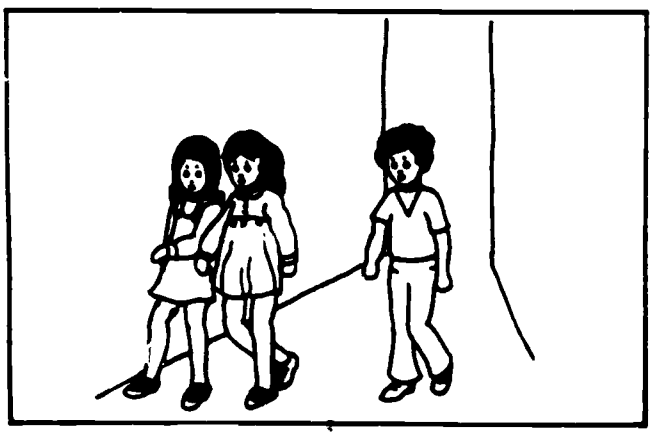
Name _____

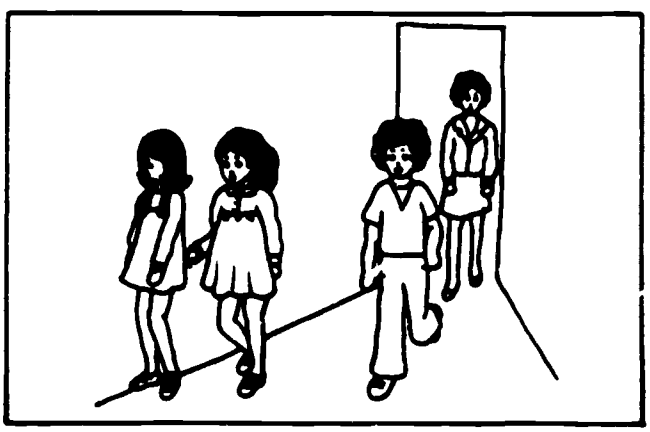
K 1 2 3

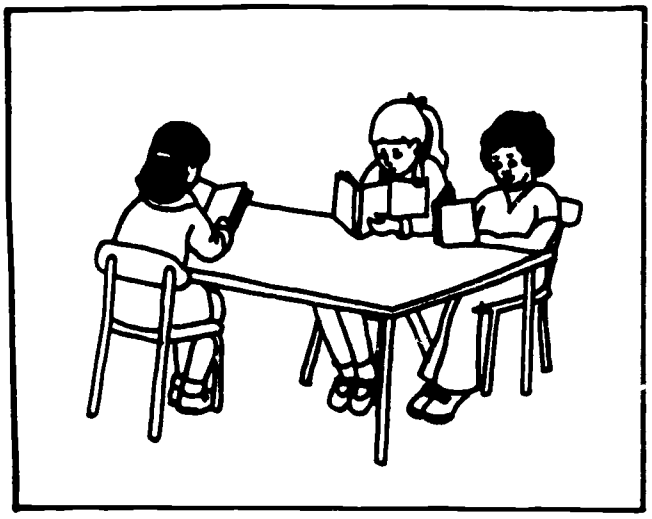
Attitude to School Questionnaire

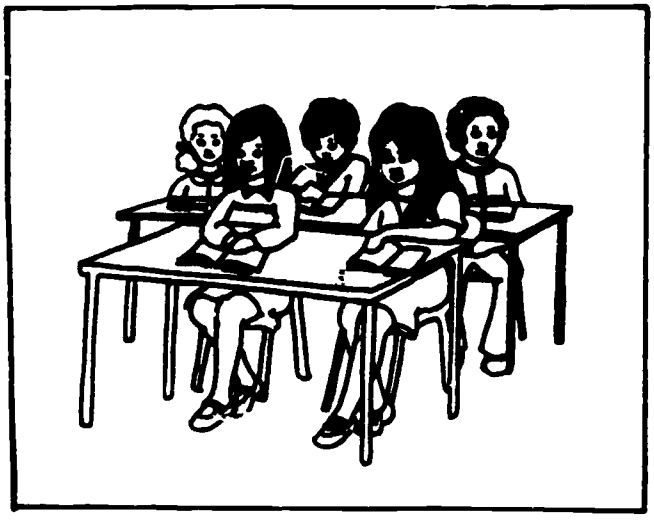


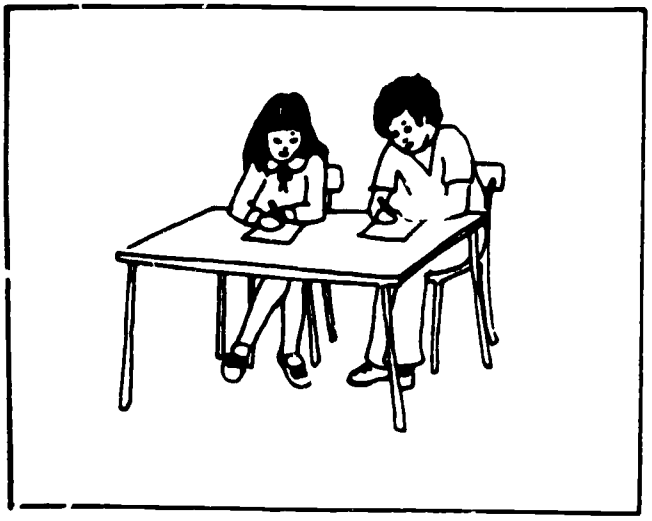


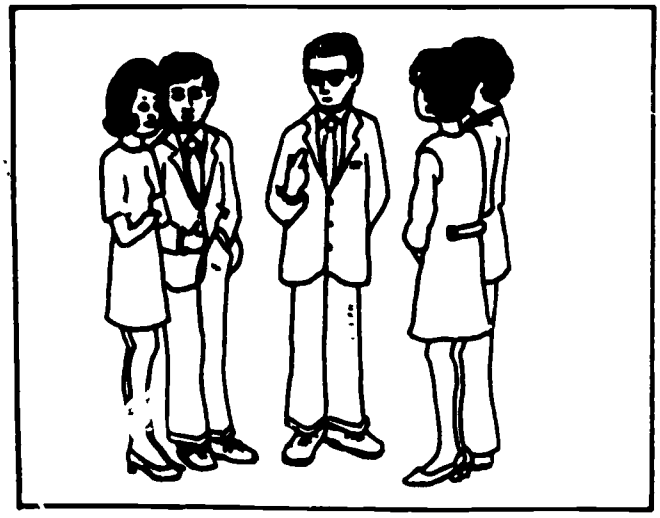


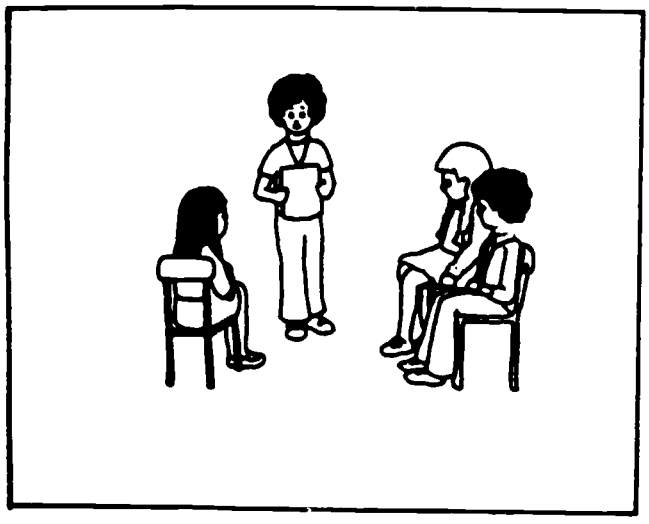


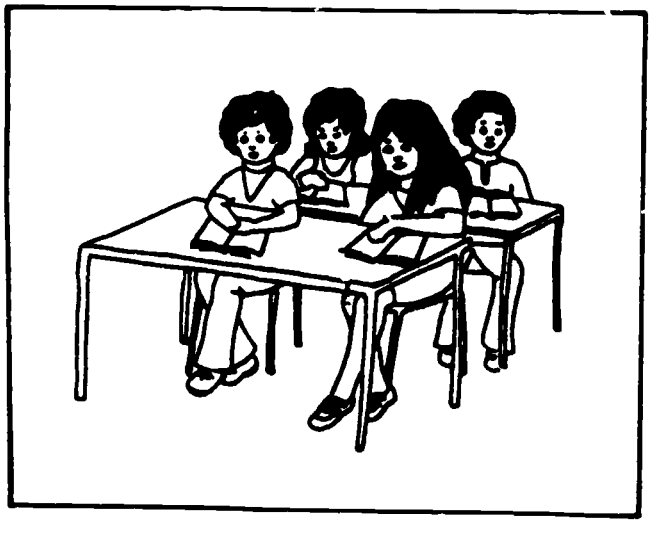


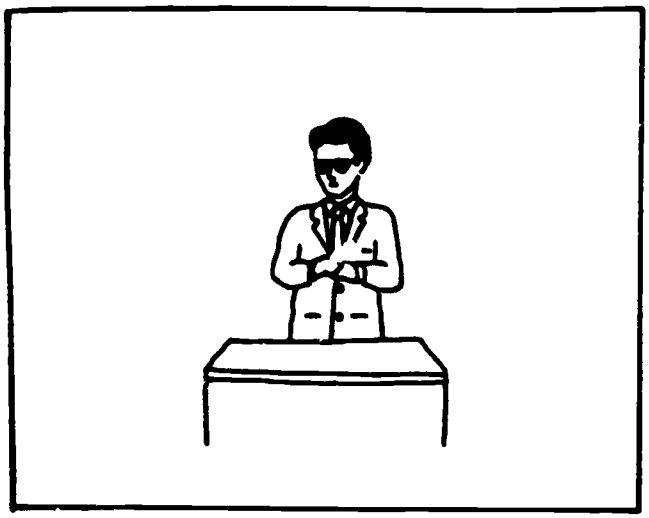


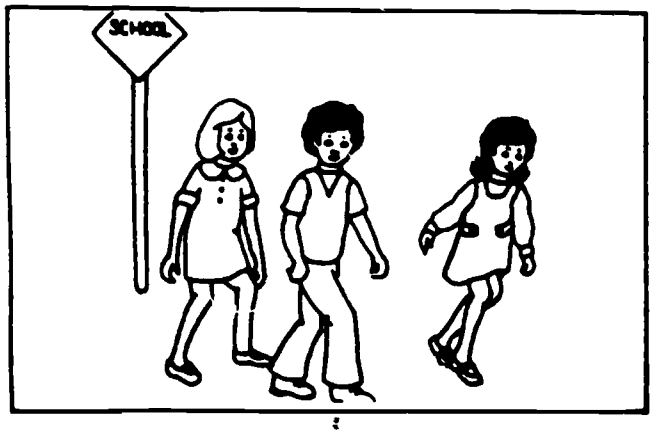


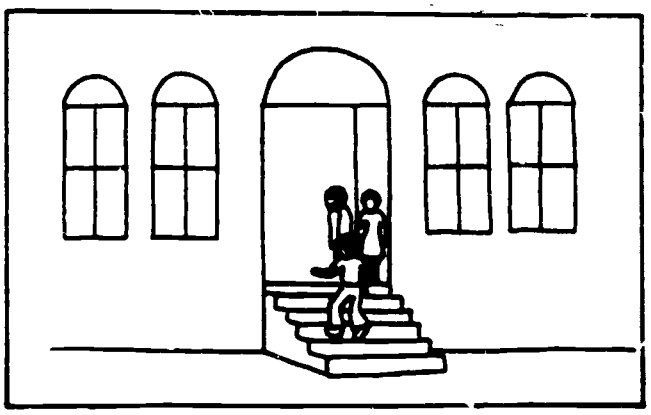


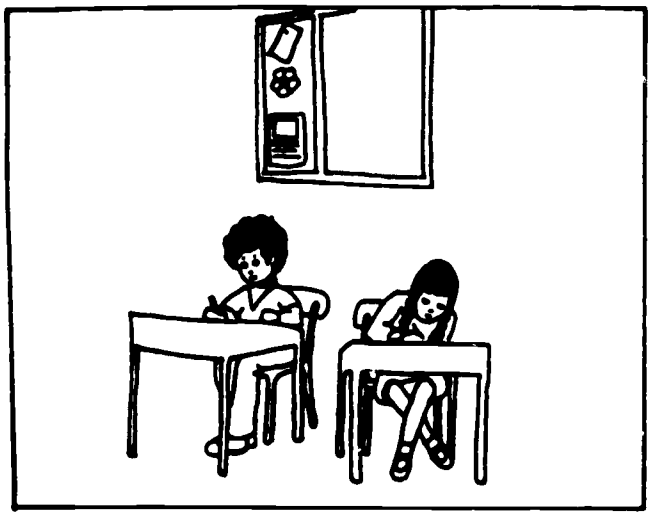


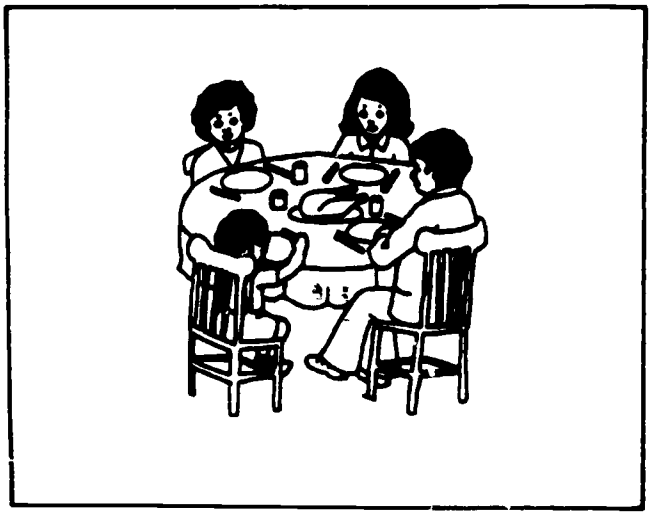


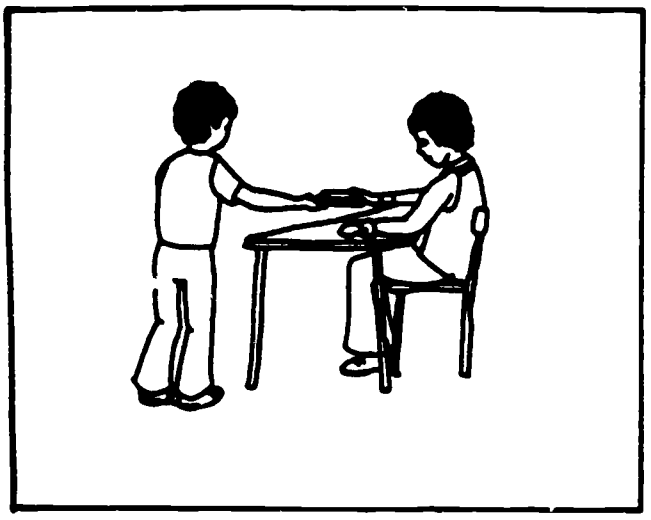


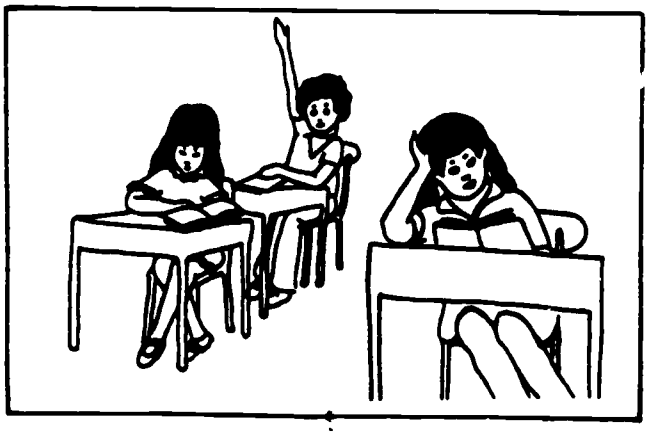

SCHOOL

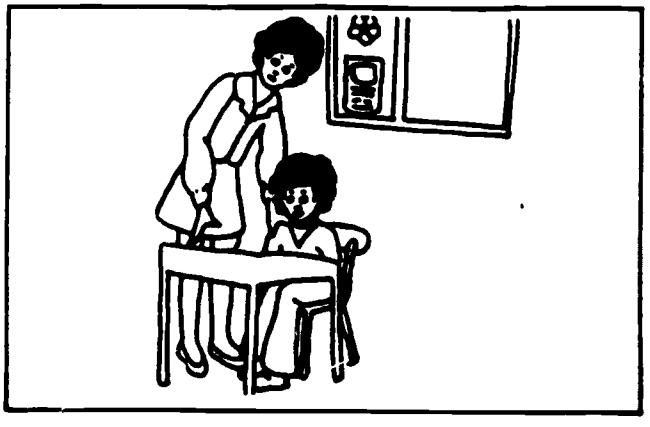


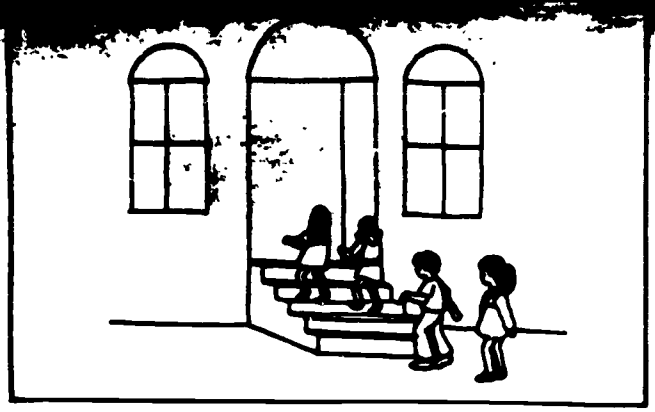


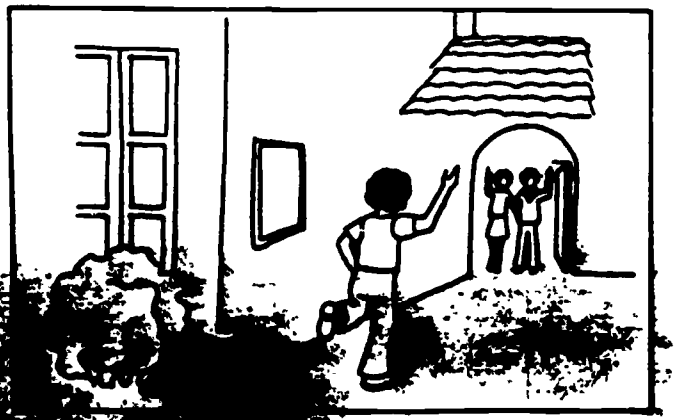


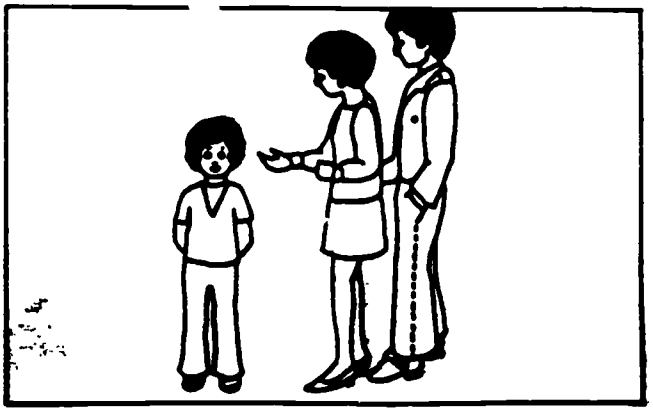












* 1. You are running.
You trip over a rock.
You fall.
What is your face like? Circle the face like your face.

* 2. You are walking down the hall at school.
You see your teacher walking down the hall.
How do you feel? Circle the face like your face.

* 3. Tomorrow the class will use more time for numbers.
Show how you feel about this. Circle the face like your face.

4. You have done number work.
Now there is more number work.
Show how you feel about this. Circle the face like your face.

5. Your teacher is talking to your parents.
Show how you feel about this. Circle the face that is like your face.

6. It is time for school to begin.
Show how you feel about this. Circle the face like your face.

7. Your class is doing math.
You are doing your math.
Show how you feel about this. Circle the face like your face.

8. It is open house at your school.
The principal is talking to your parents.
Show how you feel about this. Circle the face like your face.

9. You have something to show the class.
How do you feel? Circle the face like your face.

10. You have done your reading.
Now there is more reading.
Show how you feel about this. Circle the face like your face.

11. The principal is standing in front of your class.
How do you feel? Circle the face like your face.

12. You are on your way to school.
You get to school.
You open the door and go inside.
Show how you feel. Circle the face like your face.

13. The class is sitting down and working.

You are also doing your work.
Show how you feel. Circle the face like your face.

14. You are at home, having dinner.
Your parents ask if you like the kids in your class.
What is your face like? Circle the face like your face.

15. You are all given books so that you can work at home.
How do you feel about this? Circle the face like your face.

16. You need some help in your work.
The teacher comes over to help you.
How do you feel about this? Circle the face like your face.

17. Play time is over.
Now you will work at your desk (or table).
How do you feel about this? Circle the face like your face.

18. You are visiting your aunt and uncle.
They ask you if you like your school.
Show how you feel about this. Circle the face like your face.

* Note: Items 1-3 are practice items and are not included in overall score.

Frank Porter Graham Child Development Center

Teacher Letter

Dear "Teacher":

It has been over 10 years since the full implementation of kindergarten programs in North Carolina. The 1987 General Assembly called for a study to review North Carolina's kindergarten program at this time. We are working with the legislature to conduct this review, and would greatly appreciate your help.

This study consists of three parts: Classroom observations, teacher questionnaires, and principal questionnaires. Your classroom has been chosen through a random selection process to participate in the first two parts of this study. We have included 50 classes from across the state. We would like to observe the typical routine in your classroom for one morning as part of our effort to obtain an unbiased view of kindergarten practices in North Carolina. We would also like you to participate in a short interview in order to discuss your views about teaching kindergarten and any problems you may perceive.

As a follow-up measure, you will be asked to fill out a questionnaire about your philosophy and practices as a kindergarten teacher. Apart from the time we spend observing your class, the total time needed from your day is approximately 15-30 minutes for the interview with you, and 15-30 minutes at a later date to complete the follow-up questionnaire.

We encourage you to participate in this study. All the information we gather will be kept confidential. You will be assigned an ID number that only project staff will know. Information will be collected, coded, and entered into the computer by ID. Summary data will be presented in a way that will not allow the information given by any one individual, school, or school district to be identified.

In about one week, we will call you to answer any questions and to see if you are willing to participate in this study. A description of our study has been sent to the principal of your school and to your superintendent. If you have any questions about this study, please call Ellen Peisner collect at (919) 962-7361. This information is invaluable in our efforts to better serve young children. We look forward to talking with you in the near future.

Sincerely,

Donna M. Bryant, Ph.D. Richard M. Clifford, Ph.D.

Principal Letter

Dear "Principal":

It has been over 10 years since the full implementation of kindergarten programs in North Carolina. The 1997 General Assembly called for a study to review North Carolina's kindergarten program at this time. We are working with the legislature to conduct this review, and would greatly appreciate your help.

This study consists of three parts: Classroom observations, teacher questionnaires, and principal questionnaires. "Teacher's Name"'s class from your school has been chosen through a random selection process to participate in the first two parts of this study. We have included 50 classes from across the state. We would like to observe the typical classroom routine for one morning as part of our effort to obtain an unbiased view of kindergarten practices in North Carolina. We would also like the teacher to participate in a short interview in order to discuss views about teaching kindergarten and any problems that may be perceived.

As a follow-up measure, the teacher will be asked to fill out a questionnaire about teaching philosophy and practices. Apart from the time we spend observing the class, the total time needed from the day is approximately 15-30 minutes for the teacher interview, and 15-30 minutes at a later date to complete the follow-up questionnaire. In addition, we would like you to complete a principal questionnaire to get your views on the kindergarten program.

All the information we gather will be kept confidential. The teacher will be assigned an ID number that only project staff will know. Information will be collected, coded, and entered into the computer by ID. Summary data will be presented in a way that will not allow the information given by any one individual, school, or school district to be identified.

We hope that your school will agree to participate. A description of this study has been sent to the teacher, as well as the superintendent of your school district. In about one week we will call to answer any questions you may have, and to arrange to visit your school. If you have any questions about this study, please call Ellen Peisner collect at (919) 962-7361. This information is invaluable in our efforts to better serve young children. We look forward to talking with you in the near future.

Sincerely,

Donna M. Bryant, Ph.D. Richard M. Clifford, Ph.D.

"Superintendent Letter"

Dear "Superintendent":

It has been over 10 years since the full implementation of kindergarten programs in North Carolina. The 1987 General Assembly called for a study to review North Carolina's kindergarten program at this time. We are working with the legislature to conduct this review, and would greatly appreciate your help.

This study consists of three parts: Classroom observations, teacher questionnaires, and principal questionnaires. One class from "School Name" in your district has been chosen through a random selection process to participate in this study. We have included 50 classes from across the state. We would like to observe the typical classroom routine for one morning as part of our effort to obtain an unbiased view of kindergarten practices in North Carolina. We would also like the teacher to participate in a short interview in order to discuss views about teaching kindergarten and any problems that may be perceived.

As a follow-up measure, the teacher will be asked to fill out a questionnaire about teaching philosophy and practices. Apart from the time we spend observing the class, the total time needed from the day is approximately 15-30 minutes for the teacher interview, and 15-30 minutes at a later date to complete the follow-up questionnaire.

All the information we gather will be kept confidential. The teacher will be assigned an ID number that only project staff will know. Information will be collected, coded, and entered into the computer by ID. Summary data will be presented in a way that will not allow the information given by any one individual, school, or school district to be determined.

A description of our study has been sent to the teacher, as well as the principal of the selected school. If you have any questions or concerns about participation in this study, please let the principal know immediately, or call Ellen Peisner collect at (919) 962-7361. We plan to contact the school in about one week to arrange our visit. We hope that you will agree to have your school district participate, as this information is invaluable in our efforts to better serve young children.

Sincerely,

Donna M. Bryant, Ph.D. Richard M. Clifford, Ph.D.

THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

Frank Porter Graham Child Development Center

_ _ _ _ _ _ _ _ (1-6)
Record # 1 (7)

QUESTIONNAIRE FOR ELEMENTARY SCHOOL PRINCIPALS

Please answer each of the following questions, according to the instructions. Do NOT put your name or school on this questionnaire. All of the answers you give will be kept confidential, identified by an ID number only project staff will know. Summaries of this information will be presented in a way that will not allow the information given by any one individual or school district to be determined. If you have any questions about any of the questionnaire items or about this study, please call Ellen Peisner collect at (919)962-7361. Please return your completed questionnaire by August 20. Fold the questionnaire in half and staple it, so that our address and stamp on the back are visible for mailing.

1. What qualifications do you look for when searching for a kindergarten teacher? (Circle all that apply) (8-15)

   1 EXPERIENCE TEACHING AT ANY LEVEL
   2 EXPERIENCE TEACHING ELEMENTARY AGE CHILDREN
   3 EXPERIENCE TEACHING PRIMARY AGE CHILDREN
   4 EXPERIENCE TEACHING PREPRIMARY AGE CHILDREN, PRESCHOOL OR KINDERGARTEN
   5 SPECIALIZATION IN EARLY CHILDHOOD EDUCATION
   6 SPECIALIZATION IN CHILD DEVELOPMENT
   7 SPECIALIZATION IN READING
   8 OTHER (Please specify):_____

2. Overall, how difficult has it been for you to find well qualified kindergarten teachers? (Circle one number) (16)

   1 NOT AT ALL
   2 SOMEWHAT
   3 DIFFICULT
   4 VERY DIFFICULT
   5 EXCEPTIONALLY DIFFICULT
   6 NOT APPLICABLE (Never hired a kindergarten teacher)

(Over Please)

Frank Porter Graham Child Development Center, University of North Carolina at Chapel Hill
CB No. 8040, Suite 300, NCNB Plaza, Chapel Hill, North Carolina 27599-8040, telephone 919-962-2001

3. Please tell us your opinion about what kindergarten teachers should do. Indicate the degree to which you agree or disagree with each statement. Use the following scale:

1 = STRONGLY DISAGREE
2 = DISAGREE
3 = NEUTRAL
4 = AGREE
5 = STRONGLY AGREE

KINDERGARTEN TEACHERS SHOULD:	(Circle the appropriate number) STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE	
Devote at least half of each school day to child-chosen activities.....	1	2	3	4	5	(17)
Assume that children are motivated to learn without tangible rewards.....	1	2	3	4	5	
Show more interest in HOW children work and play than in what they PRODUCE.....	1	2	3	4	5	
Provide substantial workbook and other seatwork activity.....	1	2	3	4	5	
Administer reading readiness tests to all kindergarten children early in the year.....	1	2	3	4	5	
Involve all children in formal reading instruction.....	1	2	3	4	5	
Encourage dramatic play as a means of enhancing cognitive and social development.....	1	2	3	4	5	
Require completion of all tasks and activities.	1	2	3	4	5	
Provide major segments of each day for free play.....	1	2	3	4	5	
Use privileges, prizes and other rewards to motivate children.....	1	2	3	4	5	
Require all children to take part in every activity.....	1	2	3	4	5	
Provide children with considerable open-ended materials and experiences.....	1	2	3	4	5	
Teach children to be quiet during class time.....	1	2	3	4	5	(29)

(Continued on p. 3)

	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE	
Read stories to the class every day	1	2	3	4	5	(30)
Present educational activities as games	1	2	3	4	5	
Use manipulatives to teach children math	1	2	3	4	5	
Not leave children to solve problems on their own	1	2	3	4	5	
Use competition to motivate children during games and activities	1	2	3	4	5	
Not use too many different materials requiring fine-motor skills	1	2	3	4	5	
Plan time for gross-motor activities every morning and afternoon	1	2	3	4	5	
Use worksheets to help children learn skills such as math and reading	1	2	3	4	5	
Plan time for sand and water play	1	2	3	4	5	
Have a daily music activity	1	2	3	4	5	
Allow children to play with blocks	1	2	3	4	5	
Use centers as a primary method for teaching	1	2	3	4	5	
Allow children to be alone when they want	1	2	3	4	5	
Have children spend most of the day in large group activities with the whole class	1	2	3	4	5	
Use grades to motivate children	1	2	3	4	5	(44)

(Over please)

4. How important do you consider each of these aspects of your kindergarten program? Use the following scale:

1 = NOT AT ALL
2 = SLIGHTLY
3 = SOMEWHAT
4 = FAIRLY
5 = VERY IMPORTANT

(Circle the appropriate number)

	NOT	SLIGHT	SOME	FAIR	VERY	
Academic skills development.....	1	2	3	4	5	(45)
Affective development.....	1	2	3	4	5	
Motor skills development.....	1	2	3	4	5	
Social skills development.....	1	2	3	4	5	
Child selected activities.....	1	2	3	4	5	
Teacher directed activities.....	1	2	3	4	5	
Play.....	1	2	3	4	5	
Parent Involvement.....	1	2	3	4	5	(52)

5. How much do each of these sources influence your kindergarten program? Use the following scale:

1 = NOT AT ALL
2 = SLIGHTLY
3 = SOMEWHAT
4 = MUCH
5 = VERY MUCH

(Circle the appropriate number)

	NOT	SLIGHT	SOME	MUCH	VERY MUCH	
Parents.....	1	2	3	4	5	(53)
Kindergarten teachers.....	1	2	3	4	5	
First-grade teachers.	1	2	3	4	5	
Other Principals.....	1	2	3	4	5	
Administrative policies.....	1	2	3	4	5	
Board of Education.....	1	2	3	4	5	(58)

(Continued on p.5)

	NOT	SLIGHT	SOME	MUCH	VERY MUCH	
Superintendent	1	2	3	4	5	(59)
Preschool curriculum	1	2	3	4	5	
First grade curriculum	1	2	3	4	5	
Achievement testing	1	2	3	4	5	
Changes in society	1	2	3	4	5	
Changes in the education profession	1	2	3	4	5	(64)

6. There are many techniques to manage children's behavior. In your judgment, how useful do you consider each of the following control techniques for managing kindergartners' behavior at school? Use the following scale:

1 = NOT AT ALL IMPORTANT
2 = SLIGHTLY
3 = SOMEWHAT
4 = FAIRLY
5 = VERY IMPORTANT

(Circle the appropriate number)

	NOT	SLIGHT	SOME	FAIR	VERY	
Give verbal praise	1	2	3	4	5	(65)
Lecture	1	2	3	4	5	
Give extra privileges	1	2	3	4	5	
Discuss the offense	1	2	3	4	5	
Scold the child	1	2	3	4	5	
Take the child out of the activity	1	2	3	4	5	
Let child do something special in class	1	2	3	4	5	
Take away privileges	1	2	3	4	5	
Make the child apologize	1	2	3	4	5	
Make the child pay for damages	1	2	3	4	5	
Use corporal punishment	1	2	3	4	5	
Send child to the principal's office	1	2	3	4	5	
Give extra homework	1	2	3	4	5	(77)

(Continued on p.6)

_ _ _ _ _ _ (1-6)
Record # 2 (7)

	NOT	SLIGHT	SOME	FAIR	VERY	
Put the child in "time-out"	1	2	3	4	5	(8)
Send a note home for bad behavior	1	2	3	4	5	
Give tangible rewards	1	2	3	4	5	
Ignore the child's behavior	1	2	3	4	5	
Call the child's parents	1	2	3	4	5	
Put the child's name on the board	1	2	3	4	5	
Give extra playtime	1	2	3	4	5	
Send a note home for good behavior	1	2	3	4	5	
Isolate the child	1	2	3	4	5	
Send the child home	1	2	3	4	5	(17)

7. How important do you consider each of these behaviors when shown by kindergartners at school? Use the following scale:

1 = NOT AT ALL IMPORTANT
2 = SLIGHTLY
3 = SOMEWHAT
4 = FAIRLY
5 = VERY IMPORTANT

(Circle the appropriate number)

	NOT	SLIGHT	SOME	FAIR	VERY	
Doing what the teacher says	1	2	3	4	5	(18)
Doing something nice for the teacher	1	2	3	4	5	
Behaving well in class	1	2	3	4	5	
Doing what the teacher says right away	1	2	3	4	5	
Trying hard in class	1	2	3	4	5	
Helping in class	1	2	3	4	5	
Behaving especially well	1	2	3	4	5	
Being quiet in class	1	2	3	4	5	
Admitting he/she did something wrong	1	2	3	4	5	
Getting along well with other students	1	2	3	4	5	(27)

8. How concerned are you when kindergartners show each of these behaviors at school? Use the following scale:

1 = NOT AT ALL CONCERNED
2 = SLIGHTLY
3 = SOMEWHAT
4 = FAIRLY
5 = VERY CONCERNED

	(Circle the appropriate number) NOT	SLIGHT	SOME	FAIR	VERY	
Hitting another child	1	2	3	4	5	(28)
Hitting the teacher	1	2	3	4	5	
Refusing to do what the teacher says	1	2	3	4	5	
Doing something child was told not to do	1	2	3	4	5	
Teasing another child	1	2	3	4	5	
Arguing with another child	1	2	3	4	5	
Yelling at another child	1	2	3	4	5	
Arguing with the teacher	1	2	3	4	5	
Not doing what the teacher says right away	1	2	3	4	5	
Yelling at the teacher	1	2	3	4	5	
Fighting with another child	1	2	3	4	5	
Using another child's things without his/her permission	1	2	3	4	5	
Breaking something valuable	1	2	3	4	5	
Being too noisy in class	1	2	3	4	5	
Using the teacher's things without permission	1	2	3	4	5	
Bothering another child	1	2	3	4	5	
Not doing homework	1	2	3	4	5	
Bothering the teacher	1	2	3	4	5	
Disrupting class	1	2	3	4	5	(46)

(Continued on p.8)

	NOT	SLIGHT	SOME	FAIR	VERY	
Leaving class without permission.....	1	2	3	4	5	(47)
Not listening in class.....	1	2	3	4	5	
Talking in class.....	1	2	3	4	5	
Telling lies.....	1	2	3	4	5	
Stealing.....	1	2	3	4	5	(51)

9. Do you have any children in transition kindergarten classes at your school?

1 NO (52)
2 YES
How many children in 1987-1988?_____ (53-55)

How many children in 1988-1989?_____ (56-58)

10. Do you have any children eligible for kindergarten in pre-kindergarten or readiness classes at your school?

1 NO (59)
2 YES
How many children in 1987-1988?_____ (60-62)

How many children in 1988-1989?_____ (63-65)

_ _ _ _ _ _ (1-6)
Record # 3 (7)

11. What standardized tests are given to KINDERGARTNERS at your school, and approximately when are they administered? (If no tests are given, write "NONE)

	NAME OF TEST		MONTH GIVEN	
1987-1988:	_____	(8-9)	_____	(10-11)
	_____	(12-13)	_____	(14-15)
	_____	(16-17)	_____	(18-19)
1988-1989:	_____	(20-21)	_____	(22-23)
	_____	(24-25)	_____	(26-27)
	_____	(28-29)	_____	(30-31)

(Go to p.9)

12. What standardized tests are given to FIRST-GRADERS at your school, and approximately when are they administered? (If no tests are given, write NONE)

	NAME OF TEST		MONTH GIVEN	
1987-1988:	_____	(32-33)	_____	(34-35)
	_____	(36-37)	_____	(38-39)
	_____	(40-41)	_____	(42-43)
1988-1989:	_____	(44-45)	_____	(46-47)
	_____	(48-49)	_____	(50-51)
	_____	(52-53)	_____	(54-55)

13. What are the five most important factors you consider when making decisions about retaining children in kindergarten? (List most important first, least important last)

1. _____ (56-57)
2. _____ (58-59)
3. _____ (60-61)
4. _____ (62-63)
5. _____ (64-65)

14. What types of services and placements were used for KINDERGARTNERS with special needs at your school during the 1987-1988 school year? (Circle all that apply in both columns)

SERVICES

1 SPEECH / LANGUAGE THERAPY (66)
2 PHYSICAL THERAPY
3 OCCUPATIONAL THERAPY
4 ART / MUSIC THERAPY
5 PSYCHOLOGICAL SERVICES
6 AUDIOLOGY
7 ADAPTIVE PHYSICAL EDUCATION
8 PARENT SERVICES
9 OTHER(Please specify):

_____ (74)

PLACEMENTS

1 SPECIAL EDUCATION CLASS (75)
2 RESOURCE CLASS
3 MAINSTREAM IN REGULAR KINDERGARTEN CLASS
4 SPECIAL EDUCATION CONSULTANTS (Please specify):

_____ (78)

(Over please)

_ _ _ _ _ _ (1-6)
Record # 4 (7)

15. What areas of the kindergarten program at your school do you feel need the most improvement? (List most important first, least important last)

1._____ (8-9)

2._____ (10-11)

3._____ (12-13)

16. What areas of the kindergarten program at your school do you feel are the most outstanding? (List most important first, least important last)

1._____ (14-15)

2._____ (16-17)

3._____ (18-19)

17. Should North Carolina offer programs for 4-year-olds in the public schools? (Circle number) (20)

1 NO
2 YES, FOR ALL CHILDREN
3 YES, FOR DISADVANTAGED OR AT-RISK CHILDREN

18. If a program for 4-year-olds were offered, would you have space at your school? (Circle number) (21)

1 NO
2 YES

19. How many kindergartners are at your school?_____ (22-24)

20. How long have you served as an elementary principal?_____ (25-26)

21. How many years did you teach prior to becoming a principal?_____ (27-28)

22. At what levels have you taught? (Circle all that apply) (29-36)

1 PRESCHOOL
2 KINDERGARTEN
3 GRADES 1-3
4 GRADES 4-6
5 GRADES 7-12
6 COACH
7 GUIDANCE COUNSELOR
8 OTHER SPECIALIST (Please specify):
_____

(Subjects taught):_____ (37-42)

_____

(Go on to p.11)

23. What certificates and endorsements do you hold? (Circle all that apply) (43-54)

1 PRE-K-4 (from another state)
2 K-4 EARLY CHILDHOOD
3 4-6 INTERMEDIATE
4 6-9 MIDDLE GRADES
(Specify subjects):_____ (55-60)
5 9-12 SECONDARY
(Specify subjects):_____ (61-66)
6 CURRICULUM INSTRUCTIONAL SPECIALIST LEVEL 1
7 CURRICULUM INSTRUCTIONAL SPECIALIST LEVEL 2
8 CURRICULUM INSTRUCTIONAL SPECIALIST LEVEL 3
9 ADMINISTRATOR LEVEL 1
10 ADMINISTRATOR LEVEL 2
11 ADMINISTRATOR LEVEL 3
12 OTHER(Please specify):_____

24. What is your age?_____ (67-68)

25. What is your sex?_____ (69)

26. What is your race?_____ (70)

27. What is the highest educational degree you have attained? (Circle number) (71)

1 BACHELOR
2 MASTER
3 6-YEAR DEGREE
4 DOCTOR

28. Please use this space to write any additional comments you have about any of the items on our questionnaire, or about your kindergarten program.

THAN. 'OU! (Please fold, staple, and mail)

Frank Porter Graham Child Development Center

(Letter to 150 Principals in Random Sample)

Dear "Principal":

It has been over 10 years since the full implementation of kindergarten programs in North Carolina. The 1987 General Assembly called for a study to review North Carolina's kindergarten program at this time. We are working with the legislature to conduct this review, and would greatly appreciate your help.

One part of our study involves a questionnaire for principals of elementary schools with kindergartens. You have been chosen through a random selection process to participate in this study. We have asked 150 principals from across the state to complete this questionnaire, in order to obtain a representative view of kindergartens in North Carolina. The questionnaire includes information about the kindergarten curriculum and policies at your school, as well as your opinion about appropriate practices for this age group. It should take about 30 minutes to fill out.

We encourage you to participate in this study. All the information we gather will be kept confidential. You will be assigned an ID number that only project staff will know. Information will be collected, coded, and entered into a computer by ID. Summary information will be presented in a way that will not allow the information given by any one individual or school district to be determined.

Please complete the enclosed questionnaire, and return it to us by August 20. The questionnaire has been stamped and addressed for mailing on the back page. If you have any questions about this study or about items on the questionnaire, please call Ellen Peisner collect at (919) 962-7361. We hope that you will agree to participate, as this information is invaluable in our efforts to better serve young children. Thank you in advance.

Sincerely,

Donna M. Bryant, Ph.D. Richard M. Clifford, Ph.D.

Chapel Hill, North Carolina 27599-8040 telephone 919-962-2001

Frank Porter Graham Child Development Center

Follow-up letter for principal questionnaires

August 26, 1988

Dear "Principal":

We are conducting a review of the kindergarten program in North Carolina for the General Assembly and recently sent you a letter requesting your help. We asked you to complete the Questionnaire for Elementary School Principals as part of this study. These questionnaires were sent to a random sample of principals across the state, in order to obtain a representative view of your opinions.

If you have already returned the questionnaire, please accept our thanks for the time and effort you spent. In case you have not yet completed it, we have enclosed another copy of this questionnaire, and ask that you return it to us by September 9. The questionnaire has been stamped and addressed for mailing on the back page. After you complete the questionnaire, simply fold it in half, staple or tape it, and put it in the U. S. mail.

We would like to remind you that all the information we gather will be kept confidential. You will be assigned an ID number that only project staff will know. Information will be collected, coded, and entered into a computer by ID. Summary information will be presented in a way that will not allow the information given by any one individual or school district to be determined. If you have any questions about this study or about items on the questionnaire, please call Ellen Peisner collect at (919)962-7361. Thank you for your help.

Sincerely,

Donna M. Bryant, Ph.D.

Richard M. Clifford, Ph.D.

Frank Porter Graham Child Development Center, University of North Carolina at Chapel Hill
CB No. 8040, Suite 300 NCNB Plaza, Chapel Hill, North Carolina 27599-8040, telephone 919-962-2001

THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

Frank Porter Graham Child Development Center

_ _ _ _ _ _ (1-6)
Record # 1 (7)

QUESTIONNAIRE FOR ELEMENTARY SCHOOL TEACHERS

Please answer each of the following questions, according to the instructions. Do NOT put your name or school on this questionnaire. All of the answers you give will be kept confidential, identified by an ID number only project staff will know. Summaries of this information will be presented in a way that will not allow the information given by any one individual or school district to be determined. If you have any questions about any of the questionnaire items or about this study, please call Ellen Peisner collect at (919)962-7361. Please return your completed questionnaire by October 3. Fold the questionnaire in half and staple it, so that our address and stamp on the back are visible for mailing.

1. What qualifications do you think are important for a kindergarten teacher? (Circle all that apply) (8-15)

1 EXPERIENCE TEACHING AT ANY LEVEL
2 EXPERIENCE TEACHING ELEMENTARY AGE CHILDREN
3 EXPERIENCE TEACHING PRIMARY AGE CHILDREN
4 EXPERIENCE TEACHING PREPRIMARY AGE CHILDREN, PRESCHOOL OR KINDERGARTEN
5 SPECIALIZATION IN EARLY CHILDHOOD EDUCATION
6 SPECIALIZATION IN CHILD DEVELOPMENT
7 SPECIALIZATION IN READING
8 OTHER (Please specify):_____

2. What experiences have been helpful to you in learning about developmentally appropriate ways to teach kindergarten children? (Circle all that apply) (16-27)

1 COLLEGE COURSES
2 INTERNSHIP / STUDENT TEACHING
3 TEACHING OTHER GRADE LEVELS
4 CLASSROOM EXPERIENCE
5 INSERVICE SESSIONS
6 OTHER TEACHERS
7 SPECIAL MENTOR
8 PRINCIPAL
9 BOOKS / JOURNALS
10 OWN CHILDREN
11 OTHER EXPERIENCES WITH CHILDREN
12 OTHER
(Please specify):_____

(Over Please)

Frank Porter Graham Child Development Center, University of North Carolina at Chapel Hill
CB No. 8040, Suite 300, NCNB Plaza, Chapel Hill, North Carolina 27599-8040, telephone 919-962-2001

3. Please tell us your opinion about what kindergarten teachers should do. Indicate the degree to which you agree or disagree with each statement. Use the following scale:

1 = STRONGLY DISAGREE
2 = DISAGREE
3 = NEUTRAL
4 = AGREE
5 = STRONGLY AGREE

KINDERGARTEN TEACHERS SHOULD:	(Circle the appropriate number) STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE	
Devote at least half of each school day to child-chosen activities	1	2	3	4	5	(28)
Assume that children are motivated to learn without tangible rewards	1	2	3	4	5	
Show more interest in HOW children work and play than in what they PRODUCE	1	2	3	4	5	
Provide substantial workbook and other seatwork activity	1	2	3	4	5	
Administer reading readiness tests to all kindergarten children early in the year	1	2	3	4	5	
Involve all children in formal reading instruction	1	2	3	4	5	
Encourage dramatic play as a means of enhancing cognitive and social development	1	2	3	4	5	
Require completion of all tasks and activities	1	2	3	4	5	
Provide major segments of each day for free play	1	2	3	4	5	
Use privileges, prizes and other rewards to motivate children	1	2	3	4	5	
Require all children to take part in every activity	1	2	3	4	5	
Provide children with considerable open-ended materials and experiences	1	2	3	4	5	
Teach children to be quiet during class time	1	2	3	4	5	(40)

(Continued on p. 3)

	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE	
Read stories to the class every day.....	1	2	3	4	5	(41)
Present educational activities as games.....	1	2	3	4	5	
Use manipulatives to teach children math.....	1	2	3	4	5	
Not leave children to solve problems on their own.....	1	2	3	4	5	
Use competition to motivate children during games and activities.....	1	2	3	4	5	
Not use too many different materials requiring fine-motor skills.....	1	2	3	4	5	
Plan time for gross-motor activities every morning and afternoon.....	1	2	3	4	5	
Use worksheets to help children learn skills such as math and reading.....	1	2	3	4	5	
Plan time for sand and water play.....	1	2	3	4	5	
Have a daily music activity.....	1	2	3	4	5	
Allow children to play with blocks.....	1	2	3	4	5	
Use centers as a primary method for teaching.....	1	2	3	4	5	
Allow children to be alone when they want.....	1	2	3	4	5	
Have children spend most of the day in large group activities with the whole class.....	1	2	3	4	5	
Use grades to motivate children.....	1	2	3	4	5	(55)

(Over please)

4. How important do you consider each of these aspects of your kindergarten program? Use the following scale:

1 = NOT AT ALL
2 = SLIGHTLY
3 = SOMEWHAT
4 = FAIRLY
5 = VERY IMPORTANT

(Circle the appropriate number)

	NOT	SLIGHT	SOME	FAIR	VERY	
Academic skills development	1	2	3	4	5	(56)
Affective development	1	2	3	4	5	
Motor skills development	1	2	3	4	5	
Social skills development	1	2	3	4	5	
Child selected activities	1	2	3	4	5	
Teacher directed activities	1	2	3	4	5	
Play	1	2	3	4	5	
Parent Involvement	1	2	3	4	5	(63)

5. How much do each of these sources influence your kindergarten program? Use the following scale:

1 = NOT AT ALL
2 = SLIGHTLY
3 = SOMEWHAT
4 = MUCH
5 = VERY MUCH

(Circle the appropriate number)

	NOT	SLIGHT	SOME	MUCH	VERY MUCH	
Parents	1	2	3	4	5	(64)
Other Kindergarten teachers	1	2	3	4	5	
First-grade teachers	1	2	3	4	5	
Principal	1	2	3	4	5	
Administrative policies	1	2	3	4	5	
Board of Education	1	2	3	4	5	
Superintendent	1	2	3	4	5	(70)

(Continued on p.5)

	NOT	SLIGHT	SOME	MUCH	VERY MUCH	
Teacher Appraisal Instrument	1	2	3	4	5	(71)
Preschool curriculum	1	2	3	4	5	
First grade curriculum	1	2	3	4	5	
Achievement testing	1	2	3	4	5	
Changes in society	1	2	3	4	5	
Changes in the education profession	1	2	3	4	5	(76)

6. How much flexibility do you have in deciding your curriculum from day to day? (Circle one number) (77)

1 ALMOST NONE
2 SLIGHT
3 SOME
4 MUCH
5 VERY MUCH

— — — — — — (1-6)
Record # 2 (7)

7. There are many techniques to manage children's behavior. In your judgment, how useful do you consider each of the following control techniques for managing kindergartners' behavior at school? Use the following scale:

1 = NOT AT ALL IMPORTANT
2 = SLIGHTLY
3 = SOMEWHAT
4 = FAIRLY
5 = VERY IMPORTANT

	(Circle the appropriate number) NOT	SLIGHT	SOME	FAIR	VERY	
Give verbal praise	1	2	3	4	5	(8)
Lecture	1	2	3	4	5	
Give extra privileges	1	2	3	4	5	
Discuss the offense	1	2	3	4	5	
Scold the child	1	2	3	4	5	
Take the child out of the activity	1	2	3	4	5	
Let child do something special in class	1	2	3	4	5	(14)

(Continued on p.6)

	NOT	SLIGHT	SOME	FAIR	VERY	
Take away privileges	1	2	3	4	5	(15)
Make the child apologize	1	2	3	4	5	
Make the child pay for damages	1	2	3	4	5	
Use corporal punishment	1	2	3	4	5	
Send child to the principal's office	1	2	3	4	5	
Give extra homework	1	2	3	4	5	
Put the child in "time-out"	1	2	3	4	5	
Send a note home for bad behavior	1	2	3	4	5	
Give tangible rewards	1	2	3	4	5	
Ignore the child's behavior	1	2	3	4	5	
Call the child's parents	1	2	3	4	5	
Put the child's name on the board	1	2	3	4	5	
Give extra playtime	1	2	3	4	5	
Send a note home for good behavior	1	2	3	4	5	
Isolate the child	1	2	3	4	5	
Send the child home	1	2	3	4	5	(30)

8. How important do you consider each of these behaviors when shown by kindergartners at school? Use the following scale:

1 = NOT AT ALL IMPORTANT
2 = SLIGHTLY
3 = SOMEWHAT
4 = FAIRLY
5 = VERY IMPORTANT

(Circle the appropriate number)

	NOT	SLIGHT	SOME	FAIR	VERY	
Doing what the teacher says	1	2	3	4	5	(31)
Doing something nice for the teacher	1	2	3	4	5	
Behaving well in class	1	2	3	4	5	
Doing what the teacher says right away	1	2	3	4	5	
Trying hard in class	1	2	3	4	5	(35)

(Continued on p. 7)

	NOT	SLIGHT	SOME	FAIR	VERY	
Helping in class	1	2	3	4	5	(36)
Behaving especially well	1	2	3	4	5	
Being quiet in class	1	2	3	4	5	
Admitting he/she did something wrong	1	2	3	4	5	
Getting along well with other students	1	2	3	4	5	(40)

9. How concerned are you when kindergartners show each of these behaviors at school? Use the following scale:

1 = NOT AT ALL CONCERNED
2 = SLIGHTLY
3 = SOMEWHAT
4 = FAIRLY
5 = VERY CONCERNED

(Circle the appropriate number)

	NOT	SLIGHT	SOME	FAIR	VERY	
Hitting another child	1	2	3	4	5	(41)
Hitting the teacher	1	2	3	4	5	
Refusing to do what the teacher says	1	2	3	4	5	
Doing something child was told not to do	1	2	3	4	5	
Teasing another child	1	2	3	4	5	
Arguing with another child	1	2	3	4	5	
Yelling at another child	1	2	3	4	5	
Arguing with the teacher	1	2	3	4	5	
Not doing what the teacher says right away	1	2	3	4	5	
Yelling at the teacher	1	2	3	4	5	
Fighting with another child	1	2	3	4	5	
Using another child's things without his/her permission	1	2	3	4	5	
Breaking something valuable.	1	2	3	4	5	
Being too noisy in class	1	2	3	4	5	(54)

(Continued on p.8)

	NOT	SLIGHT	SOME	FAIR	VERY	
Using the teacher's things without permission	1	2	3	4	5	(55)
Bothering another child	1	2	3	4	5	
Not doing homework	1	2	3	4	5	
Bothering the teacher	1	2	3	4	5	
Disrupting class	1	2	3	4	5	
Leaving class without permission	1	2	3	4	5	
Not listening in class	1	2	3	4	5	
Talking in class	1	2	3	4	5	
Telling lies	1	2	3	4	5	
Stealing	1	2	3	4	5	(64)

10. In recent years, there has been a large increase in the number of children with preschool experiences in group care settings (such as daycare, Head Start, nursery school). What impact has this had on <u>children's</u> preparation for kindergarten at your school? Use the following scale:

1 = MUCH WORSE PREPARED
2 = SOMEWHAT WORSE PREPARED
3 = NO IMPACT
4 = SOMEWHAT BETTER PREPARED
5 = MUCH BETTER PREPARED

	(Circle the appropriate number) MUCH WORSE	SOME WORSE	NO IMPACT	SOME BETTER	MUCH BETTER	
Academic skills development	1	2	3	4	5	(65)
Affective development	1	2	3	4	5	
Motor skills development	1	2	3	4	5	
Social skills development	1	2	3	4	5	
Child selected activities	1	2	3	4	5	
Teacher directed activities	1	2	3	4	5	
Play	1	2	3	4	5	(71)

(Go to p.9)

_ _ _ _ _ _ (1-6)
Record # 3 (7)

11. What standardized tests are given to KINDERGARTNERS at your school, and approximately when are they administered? (If no tests are given, write NONE)

	NAME OF TEST	MONTH GIVEN
1987-1988:	_____ (8-9)	_____(10-11)
	_____ (12-13)	_____(14-15)
1988-1989:	_____ (16-17)	_____(18-19)
	_____ (20-21)	_____(22-23)

12. What are the five most important factors you consider when making decisions about retaining children in kindergarten? (List most important first, least important last)

1._____ (24-25)

2._____ (26-27)

3._____ (28-29)

4._____ (30-31)

5._____ (32-33)

13. What types of services and placements were used for KINDERGARTNERS with special needs at your school during the 1987-1988 school year? (Circle all that apply in both columns)

	SERVICES		PLACEMENTS
1	SPEECH / LANGUAGE THERAPY (34)	1	SPECIAL EDUCATION CLASS (43)
2	PHYSICAL THERAPY	2	RESOURCE CLASS
3	OCCUPATIONAL THERAPY	3	MAINSTREAM IN REGULAR KINDERGARTEN CLASS
4	ART / MUSIC THERAPY	4	SPECIAL EDUCATION CONSULTANTS (Please specify):
5	PSYCHOLOGICAL SERVICES		
6	AUDIOLOGY		_____(48)
7	ADAPTIVE PHYSICAL EDUCATION		
8	PARENT SERVICES		
9	OTHER(Please specify):		

_____ (42)

(Over please)

14. What areas of the kindergarten program at your school do you feel need the most improvement? (List most important first, least important last)

1._____ (49-50)

2._____ (51-52)

3._____ (53-54)

15. What areas of the kindergarten program at your school do you feel are the most outstanding? (List most important first, least important last)

1._____ (55-56)

2._____ (57-58)

3._____ (59-60)

16. Should North Carolina offer programs for 4-year-olds in the public schools? (Circle number) (61)

1 NO
2 YES, FOR ALL CHILDREN
3 YES, FOR DISADVANTAGED OR AT-RISK CHILDREN

17. How many kindergartners are in your class?_____ (62-64)

18. How many years have you taught kindergarten, including this year?_____ (65-66)

19. Altogether, how many years have you taught?_____ (67-68)

__ __ __ __ __ __ (1-6)
Record # 4 (7)

20. At what levels have you taught? (Circle all that apply) (8-15)

1 PRESCHOOL
2 KINDERGARTEN
3 GRADES 1-3
4 GRADES 4-6
5 GRADES 7-12
(Subjects taught):

6 COACH
7 GUIDANCE COUNSELOR
8 OTHER SPECIALIST (Please specify):

_____

_____ (16-21)

_____

(Go on to p.11)

21. What certificates and endorsements do you hold? (Circle all that apply) (22-33)

1 PRE-K-4 (from another state)
2 K-4 EARLY CHILDHOOD
3 4-6 INTERMEDIATE
4 6-9 MIDDLE GRADES
(Specify subjects):_____ (34-39)
5 9-12 SECONDARY
(Specify subjects):_____ (40-45)
6 CURRICULUM INSTRUCTIONAL SPECIALIST LEVEL 1
7 CURRICULUM INSTRUCTIONAL SPECIALIST LEVEL 2
8 CURRICULUM INSTRUCTIONAL SPECIALIST LEVEL 3
9 ADMINISTRATOR LEVEL 1
10 ADMINISTRATOR LEVEL 2
11 ADMINISTRATOR LEVEL 3
12 OTHER(Please specify):_____

22. What is your age?_____ (46-47)

23. What is your sex?_____ (48)

24. What is your race?_____ (49)

25. What is the highest educational degree you have attained? (Circle number) (50)

1 BACHELOR
2 MASTER
3 6-YEAR DEGREE
4 DOCTOR

26. Please use this space to write any additional comments you have about any of the items on our questionnaire, or about your kindergarten program.

THANK YOU! (Please fold, staple, and mail)

Frank Porter Graham Child Development Center

"Letter for Teacher Questionnaires"

Dear "Teacher":

It has been over 10 years since the full implementation of kindergarten programs in North Carolina. The 1987 General Assembly called for a study to review North Carolina's kindergarten program at this time. We are working with the legislature to conduct this review, and would greatly appreciate your help.

This study consists of three parts: Classroom observations, teacher questionnaires, and principal questionnaires. You have been chosen through a random selection process to participate in the teacher questionnaire part of this study. We have asked 357 kindergarten teachers from across the state to complete this questionnaire, in order to obtain a representative view of kindergartens in North Carolina. The questionnaire includes information about the kindergarten curriculum and policies at your school, as well as your opinion about appropriate practices for this age group. It should take about 15-30 minutes to fill out.

We encourage you to participate in this study. All the information we gather will be kept confidential. You will be assigned an ID number that only project staff will know. Information will be collected, coded, and entered into a computer by ID. Summary information will be presented in a way that will not allow the information given by any one individual, school, or school district to be identified.

Please complete the enclosed questionnaire, and return it to us by October 3. The questionnaire has been stamped and addressed for mailing on the back page. If you have any questions about this study or about items on the questionnaire, please call Ellen Peisner collect at (919) 962-7361. We hope that you will agree to participate, as this information is invaluable in our efforts to better serve young children. Thank you in advance.

Sincerely,

Donna M. Bryant, Ph.D. Richard M. Clifford, Ph.D.

Frank Porter Graham Child Development Center, University of North Carolina at Chapel Hill
CB #8040, Suite 300, NationsBank Plaza, Chapel Hill, North Carolina 27599-8040, Telephone 919-962-2001

Frank Porter Graham Child Development Center

Follow-up Letter for Teacher Questionnaires

October 13, 1988

Dear "Teacher":

We are conducting a review of the kindergarten program in North Carolina for the General Assembly and recently sent you a letter requesting your help. We asked you to complete the Questionnaire for Elementary School Teachers as part of this study. These questionnaires were sent to a random sample of teachers across the state, in order to obtain a representative view of your opinions.

If you have already returned the questionnaire, please accept our thanks for the time and effort you spent. In case you have not yet completed it, we have enclosed another copy of this questionnaire, and ask that you return it to us by October 28. The questionnaire has been stamped and addressed for mailing on the back page. After you complete the questionnaire, simply fold it in half, staple or tape it, and put it in the U. S. mail.

We would like to remind you that all the information we gather will be kept confidential. You will be assigned an ID number that only project staff will know. Information will be collected, coded, and entered into a computer by ID. Summary information will be presented in a way that will not allow the information given by any one individual or school district to be determined. If you have any questions about this study or about items on the questionnaire, please call Ellen Peisner collect at (919)962-7361. Thank you for your help.

Sincerely,

Donna M. Bryant, Ph.D.

Richard M. Clifford, Ph.D.

Frank Porter Graham Child Development Center, University of North Carolina at Chapel Hill
CB No. 8040, Suite 300, NCNB Plaza, Chapel Hill, North Carolina 27599-8040, Telephone 919-962-2001

Follow-up Postcard for Teacher Questionnaires

November 14, 1988

We recently sent you a second copy of the Questionnaire for Elementary School Teachers as part of a review of the kindergarten program we are conducting for the North Carolina General Assembly.

If you have already returned the questionnaire, please accept our thanks. If not, please do so by November 28. Because this questionnaire has been sent to only a small, but representative, sample of kindergarten teachers, it is extremely important that yours also be included in the study if the results are to accurately represent the opinions of North Carolina teachers.

If you have any questions about the study or need another questionnaire, please call Ellen Peisner collect at (919)962-7361. Thank you for your help.

Sincerely,

Donna M. Bryant, Ph.D. Richard M. Clifford, Ph.D.

Questionnaire Codes--Retention

CD--Cognitive Development
Knowledge of shape, color, size; Reading readiness; Oral &/or written communication skills; Language development; academics; Speech; Cognitive ability; Intellectual readiness; academic ability; Intelligence; Academic maturity; Academic potential; ABC's; academic problems; Know body parts; Write name & know address; Ability to reason; Knowledge of subject matter; Evidence of LD; academic achievement; Evidence of speech problems; Attention span; Mental; IQ; Academic readiness; Cognitive behavior; Mental Retardation; Content Knowledge; Mental skill development; Knowledge of needed materials; Mental immaturity; Knows readiness facts; Academic accomplishments of year; Academic skill; Letter name recognition; Academics; Mental maturity; Letter &/or number recognition; Mental ability; How to say full name; Mastery of academic skills; Academic skills development; Academic progress; Academic development; Ability to retain information and use it when needed; Academic learning concepts; Communication skills; Academic progress; Academic skills learned; Knows capital letters (recognizes); Count by memory 1-10; Cognitive level; Academic function; Poor language arts skills; Poor mathematical knowledge; Academic weakness; Recognition of letters; Writing letters; Reproduce sound of letters; Recognize and write numerals 0-20; Poor language development; Needs time to develop oral language; Short attention span if cognitive development does not meet expected levels; Severe lag in communication skills; Academic weakness identification of alphabet &/or beginning sounds; Mental retardation; Able to attend to "on task" activities; Listening skills

PD--Physical Development
Physical development; Physical handicaps; Fine &/or gross motor skills; Coordination; Physical size; Physical maturity; Size; Manipulative skills; Fine &/or gross motor skills underdeveloped; Eye-hand coordination; Poor motor skills; Fine motor coordination; Motor skills development; Gross motor development; Fine motor development; Physical &/or motor skills; Delay in gross &/or fine motor development; Hearing problems

SD--Social/Emotional Development
Ability to get along with others; Social &/or emotional development; Social &/or emotional handicaps; Social maturity; Social skills; Social behavior; Emotional maturity; Ability to relate to authority; Adaptability; Psychological &/or emotional stability; Behavior; Socialization; Emotional outcome; Emotional level; Social factors; Is child disruptive; Emotional problems; Unhappiness and maladjustment; School coping skills; Ability to use bathroom; Social adjustments; Emotional behavior;

Misbehavior; Ability to become one of the mob; Social competency; How will it effect their self concept?; Youngness; Poor social development; Self discipline; Behavior skills; Responsibility for own self; Insecure behaviors; If social &/or emotional affective development does not meet expected levels; Can he/she function appropriately in group?; Ability to get along with others; Severe lag in social development; Social maturation; Self-esteem; Frustration level; Adjustment

GD--General Development
Maturity; Developmental age; Developmental potential; Skills mastered; Ability; Exceptionalities; Student's work; Student's progress; Level of performance; Move to independent work; Work habits; Ability to follow directions; Completion of activities; Mastering of readiness skills; Readiness; Developmental level; Success at kindergarten tasks; Ability to complete tasks; Evidence of developmental delay; Educational exceptionalities; Special needs or problems; Maturational level; Ability to apply skills taught; Listen and perform well; Ability to learn that which has been taught in public schools; Motor skills; Ability to follow teacher directed activities; Self-help skills; Has learned basics; Development of listening skills; Sitting for less than five minutes listening; Maturation; Developmental readiness; Learning exceptionalities; Ability to learn; Learning pace; The child's total development; Immaturity; Developmental delays; Not being able to work independently; Mastery of skills; Developmentally mature; Independence; Developmentally young; Achievement; Lack of decision making skills; Performance in classroom; Overall development lag; Ability to cope with total kind of program; Responsibility; Poor work habits; Poor preparation (readiness)

AG--Age
Age; Birthdate; Age of siblings; Chronological age; Age of student; Late birthdate; Youngness

FF--Fit with First grade/Kindergarten
Readiness; Shows indications of being a successful first-grader; Can progress in first grade; Is there a group student can function in if sent to first; Ability to cope with structured classroom; What's best for the child; Will the child benefit from retention; What can be done for student that wasn't done this year; How the child will be affected; Readiness for first grade; What will be done differently if child is retained; Will one additional year help child; What are specific needs of child; Developmental aspects basic to success in grade one such as ability to write name; It is likely child will do significantly better if he repeats type of program teacher will offer next year; Are they academically ready for first grade?; Are they socially ready for first grade? Needs more time to learn; First grade teachers

PF--Parent/Family Issues
Parental permission; Parental concerns; Parental involvement; Parental response; Family; Student's attitude / preference; Family environment (social class/ background/status); Parental awareness of child's development; Environmental background; Socioeconomic background; Exposure to outside world/culture; Emotional &/or social effect on child; Home situation; Parent opinion; Parent consent; Parent's attitude; Parent feedback; Parent's willingness to reinforce areas of weakness; Parental understanding; What is parent involvement/cooperation level?; Parental feelings and attitudes; Racial background

TR--Teacher Recommendation
Teacher recommendation; Teacher judgement; Resource people's guidelines; Teacher attitude; Other teacher's input; Assistance team recommendation

SM--Student Motivation
Student motivation; Approach to school--character; Has child tried to do his/her best; Attitude; Effort; Desire; Child's personality; Is child trying his hardest/doing his best?; Lacks self motivation; Does not show interest in school activities; Attitude attuned to learning

SX--Sex of child
Sex; Gender

SP--School Policies
School board policy; System promotion standards; Meet minimum kindergarten standards; Previous retentions (board policy); Has he/she learned skills stated and signed on promotion-retention sheet; Failure to master kindergarten math/reading skills from competency base curriculum; Met promotion/retention standards; Competency checklist; If they know the state objectives; The fact that kindergarten is not mandatory; Academic requirements

AT--Attendance
Attendance; Number of days missed; Does he miss a lot of school?; Missed maximum days of school

TS--Test Scores
Test scores; Diagnostic "map" of child's development; Assessment data; Achievement Test scores

GR--Grades
Grades; Report cards

AR--Availability of Resources
availability of applicable resource programs; Level of services of support group needed; Availability of problem placement; Whether receiving special services

PR--Prior Retentions
Prior retentions; Repeater

OT--Other
Personal philosophy; Personal information; Lacks experience; Teacher directed activities; Alternatives to retention; Transferred from other school (where teacher had already made recommendation); "Whole Child" approach

DR--Don't retain
Don't retain; No retentions; Don't believe in retention

NR--No response

Questionnaire Codes--Outstanding Areas & Areas for Improvement

TE--Teachers
Teachers; Experienced teachers; More staff to avoid K-1; Teacher attitudes; Replace teacher; A caring and hardworking teacher; More consistency among teachers; Creative teachers; Teacher education/understanding of what kindergarten should be; Other teachers' input.

AI--Aides
Aides; Staff development for aides; More aides; Substitutes for aides when they are absent; Full-time aides

PR--Principal
Principal; Administration (FROM TEACHERS); In-service training for principal on kindergarten program; Lack of constructive feedback/input.

TS--Teaching staff
Staff; Personnel; Teachers & aides experienced; Good instruction; In-service training for kindergarten teachers and aides; Opportunities to attend workshops.

OS--Other Staff
School counselor; Secretary; Resource teacher; Art / Music/ P.E. / Foreign language teacher; Involvement & use of resources; Meeting children's needs-speech, hearing, guidance; Additional help for emotionally young student; Therapy; Guidance services; Health; Difficult to get special help for children; Presence of kindergarten supervisor helpful.

TW--Teamwork
Principal-teacher-parent teaming; Teachers plan together; Teachers working as a team; More group planning; More K, K-1, 1st teaming; Closer work with first grade; Teacher-aide cooperation; Correlate kindergarten to first grade for easier transition; Lack of teamwork; Merit system promotes grade-level competitiveness; Stress on working together

DO--District Office
Superintendent; School Board; Central Office support; Administrative support (FROM PRINCIPALS); Contradictory values expressed by school board, principal, accreditation system; Career ladder program either too stifling or helpful

PE--Physical Environment
Facilities; Materials; Equipment; Carpeted classroom; Environment; Nice, cheerful environment; Well-equipped; Supportive material; Supplies; Enlarge room; Physical facility; Kindergarten furniture; Update materials & equipment; More stimulating materials; Audio equipment; Air condition; More manipulatives; Computers; More picture

books; Walls needed to cut down on noise; Need large items like a puppet stage and store; Bathrooms in all kindergarten rooms; Outdoor equipment; More storage space

CP--Classroom Practices
Group activities; Use of centers; Manipulatives; Hands-on experiences; Variety of experiences; Organization; Well-organized day; Open-ended activities; Use of outdoors as a teaching area; Teacher-directed activities; Instructional goals; Instruction; Field trips; Use cooking in curriculum; Too structured; Shorter day; Shorter day for first month; Less duplicate sheets; More centers; Play; Instruction-increase emphasis on core areas; New method for handling wide spectrum of abilities and experiences; P.E. vs. free play; Planning and follow-up techniques; Scheduling; Variety of ways to facilitate instruction; Helping students learn to "succeed" with the games and lessons that are taught; Scheduling of classes to maximize engaged time; Uniform curriculum; Curriculum planning; More time just for teaching; Use of senses for teaching (i.e. taste, touch, smell, etc.); Use of materials

CF--Child Focus
Whole-child approach; Child-centered activities / curriculum; Child-selected activities; Children feel accepted; Integrated learning; Integrate curriculum; Students are learning and happy; Happy children; Knowledge of "whole" child; Emphasis on early child development; Individualization; Meet students' needs; Work with student's individual needs; Develop all intelligences; Nurturing situation as a primary school; Let students be themselves; Focus on developmental age; More training in child development; More developmental approach; Better display of student work; More student writing and publishing needed; Appropriate grouping

CD--Cognitive Development
Reading; Pre-reading; Consistent reading program; Writing-to-read program; Verbal skills; Communication skills; Oral language skills; NC Basic Education Plan (BEP); Alphaphonics; Story hour; Music &/or Art programs; Academic programs; Academic skills; Academic achievement; Science; Math; Math program--hands-on; Academic development; Too academic; Listening skills; Enrichment for advanced; Strategies for at-risk; Too much use of worksheets; Foreign language program; Listening skills; Use of report cards

RE--Readiness
Readiness; Readiness Education; Preparedness for first-grade; Academic readiness; Readiness skills;

SD--Social/Emotional Development
Social development; Social adjustment; Socialization; Good behavior; Affective development; Emotional development; All

children shculd be toilet trained before entering kindergarten

PD--Physical Development
Physical development; P.E. program; Fine-motor skills; Gross-motor skills; Therapy for non-identified physically developmentally slow.

SI--Screening and Identification
Gesell program; Gesell placement; EPSF (Early Prevention of School Failure); Awareness of readiness; Use of preschool information effectively; Standardize evaluation statewide to enhance adjustment when relocating; Include kindergarten in SCREEN process; Readiness testing; Fewer diagnostic tests; Use preschool information effectively; Medical and psychological testing; Testing causes too much county-wide competitiveness

DI--Discipline
Discipline; Assertive discipline program; STAR (reward) program

PC--Parents & Community
Parents; Parental involvement / support; Teacher-Parent relations; Community involvement; Neighborhood school; Family atmosphere; Use of parents as resources; Volunteers; Parent involvement at age 4; Parent education; PTA; Majority of parents socioeconomic class - wealthier children put in private schools

CS--Class-size
Class-size; Student-teacher ratio

TK--Transition Kindergarten or Pre-Kindergarten classes
TK (Transition Kindergarten); Pre-K; More staff for pre-K class; More staff for TK; TK availability

FU--Funding
Funding; Money; $; Lack of state and county funds; Need more materials; need walls around classroom

EB--Earlier Birthdate cutoff
Earlier birthdate cutoff

OT--Other
We're doing a nice job; On-task; Attitude toward school--very positive; Awareness--orientation to environment; Following directions; Student motivation; More planning time; Resist outside pressure; Consistency in the system-wide program; Special help for weaker; Ride the same buses as eighth grade; Fairness in placing children in classes. We are encouraged and helped to attend workshops of interest; County-wide decision on whether children who are ready should begin the reading program; Guidance;

Transportation; Assemblies; Lunch; Transitional program between home and school; Leadership; Less paperwork; Teachers need to feel more comfortable; Breakfast takes away from instruction time; School morale; Retention policy; Be included at the state level; Understanding of ethnic groups; No other kindergarten teachers; Paperwork; Too many meetings; Low teacher pay scale; Not much inside system; Poor teacher evaluation; Special days

NR--No Response
Average program

Descriptions of Hypothetical Classrooms

What does it mean to have a classroom ECERS score of 5? What does a classroom with an ECERS average of 3 look like? How do classes with average scores of 3, 4, or 5 differ from each other? To put these scores into context, we have created three classroom descriptions, based on an amalgamation of the ECERS data and notes from the classroom observers. The following sections describe three hypothetical kindergarten classrooms, one each in the "Good," "Fair," and "Poor" range. In reading these three classroom characterizations, keep in mind some of the themes that are consistently emphasized in developmentally appropriate practice: What types of materials do children use as they learn language, concepts, reading, and writing and how are they allowed to use these materials? How much individual choice is allowed the children? How much of the class time is spent in large group meetings, in centers, in handling routines? How is positive social behavior elicited? Differences in these areas are what distinguish good, developmentally appropriate classes from those that are not.

A "Good" Class. (ECERS score >=5). The day begins with a personal, friendly greeting from the teacher or assistant to each child when he or she enters the classroom. The classroom itself looks bright and colorful. Examples of children's creative work are prominently displayed on walls and bulletin boards, along with some photos from home. After "hellos" and hanging up coats in individual cubbies, the whole class sits on the rug together for about 20 minutes to talk about the day, what will happen, special events, and general group time for sharing. The teacher incorporates some events from the previous day into this discussion.

After that, children are allowed to choose from among many center activities. The choice is orderly. For example, 4 yellow and 2 red clothespins among others on a "wheel" of centers indicate that 4 children may be in the housekeeping center at any one time and 2 children at the painting easel. When one child leaves an activity, another may take his clothespin and go to that activity. Ultimately, children choose to spend some time in each center over the course of the week. Many centers contain active learning materials like puzzles, a variety of art materials, many types of blocks, cooking utensils, sand or water with several measuring devices. Some centers contain tapes or records that children use by themselves. The teacher talks often with individual children and small groups of children as she moves among them in the centers. The language is informal and conversational, not just

instructive. Children help teach each other and play together. Much of the morning is spent in these activities.

In one center, children can choose to work with the assistant. She helps a small group of 5-6 children at one table sort leaves. They sort them by color, by type, by size. As they work, she talks with children about seasons, asking them to tell her words they can use to describe leaves, encouraging imaginative words. Each child's leaves are put into a bag that is labelled with the child's name, ready to be used in tomorrow's leaf-printing activity. As children finish working, they leave and others join in.

Children who need to go to the bathroom can do so on their own and are reminded to wash their hands before returning. A quick snack is served mid-morning, and the snack itself is "educational". A little cup of vegetables is served as part of Peter Rabbit story time, which the teacher reads to those children who are interested. Children do not have to wait in lines for any of these events.

Writing to Read, a pre-reading program, is used as a set of many different activities. The whole class spends an hour in the "computer room" choosing among 4 different activities: listening to a tape while looking at a book, actual use of a typewriter or computer, coloring a worksheet related to the computer lesson, and free writing.

At lunch time children choose who they wish to sit with at their child-sized table. Seating varies from day to day, and on some days the kindergartners can sit with first- and second-grade friends. The teacher and assistant both sit with some children and chat during lunch. Time outdoors is scheduled twice per day, morning and afternoon. A PAR course (provided by the PTA) is sized for the use of little children. Smaller-sized swings and a covered sandbox are also available. Kindergartners play in an area that is protected from danger and relatively protected from older children's interference. The teacher or assistant are present outdoors with the children and engage in conversation with them.

Upon return from the outdoors, a story is read to the children or a favorite record is played--a time to learn through listening, as well as time to settle down from active outdoor play. In preparation for a trip to the fire station, the teacher leads some of the children in brainstorming a list of things they expect to see on their visit. She writes the names of the items on a large flip chart and illustrates each item with a quickly-drawn sketch. The children talk freely about fire trucks, firemen, and all they might see. When an interesting question pops up the teachers asks the whole class to think about it and accepts

all answers, not just the "correct" one. Other children spend time in centers of their choice, with the assistant joining in some of the smaller groups.

The last event of the day is a short discussion with the whole class about Halloween safety rules, with the children telling why the rules are important. After the discussion, each child selects one rule and draws a picture to illustrate it. The teacher and assistant circulate throughout the room, writing the rule the child has illustrated on the drawing and sending them home with the children. The teacher manages to send a brief note home to a few parents each day, mentioning a learning activity enjoyed by the child recently, or an idea about something to work on together at home. "Goodbyes" are as warm and friendly as the greetings were 6-1/2 hours earlier.

A "Fair" Class. (ECERS score of 4). Children enter the classroom in an orderly way. They know to get their weekly "contracts" (their work) and go straight to circle time. Only a few are greeted personally. The classroom is bright and bulletin boards include many teacher-made materials related to the current topics and some travel posters. In circle time, the teacher leads a discussion of the calendar, asking for correct responses to questions about the day of the week and month of the year. A discussion of the weather follows with the teacher "leading" children to the right answers to her questions. Few novel ideas are recognized, and one right answer seems to be expected. Continuing in the large group mode for a total of an hour, a lesson about timelines is presented. Children have brought pictures from home and have colored pictures to illustrate the progression of time. Each day this week, new pictures are added to the order, and the teacher purposefully uses many words referring to the past, present, and future. Meantime, the assistant has been taking attendance, copying a worksheet, and setting up materials for a cooking activity.

After this hour of whole-group instruction, the class moves to center time. Children are told which centers to use, although within centers there are usually at least 2 activities to choose from. Many of the activity options involve the coloring of pictures on a ditto sheet. A block center is available, wedged in a small space between the teacher's desk and a bookcase. The art center activity for the day is tracing autumn leaves and coloring them. A computer is present in the room, but is not in use.

After 45 minutes of center time, the teacher explains that the class is going to make yogurt popsicles. This occurs in small groups while the rest of the class work at their tables on worksheets matching numerals to pictures of different numbers of items. The popsicle makers mix their yogurt, mashed bananas and orange juice, clearly having fun

with this activity. The teacher pours the mix into paper cups and the children insert a popsicle stick into their own cup. The assistant then takes the popsicles to the freezer.

At 10:45 the class must go to lunch. They spend 5 minutes lining up and are then led down the hall to the bathrooms for handwashing, and on to the cafeteria. The teacher and all children have their fingers to their lips to remind themselves to be quiet, but when they get to the cafeteria talking is allowed. At lunch they may sit with anyone in their class. The adults do not usually eat with the children.

After lunch this class is scheduled for an indoor PE class. While popular music is played, children use hula hoops, jump ropes, and play hopscotch for 20 minutes. On their way back to class, they stop again at the bathrooms since there is no sink in their room for handwashing.

The teacher's assistant reads a story to the whole group about what happened to the dinosaurs, and then the children color another ditto sheet about fossils. One child mentions the "fossil" handprint he made at his after-school program, but the teacher says that plaster of Paris is too expensive to use in their class.

Recess is saved for the very end of the day when children seem to be getting noisy and fidgety. The transition to outdoors takes 10 minutes because everyone must be ready to leave the classroom at the same time. Swings, a jungle gym, and a PAR course (donated by the PTA), are all available, but appear to be too large for these young children. In addition, the kindergartners must "compete" with older children for use of the outdoor equipment. Consequently, most of them run around or mill around during this time. Occasionally, a group activity will be planned for recess. The teacher tries to make it non-competitive by having the "last" child pick the next game or yell the next instruction.

At last the day is over and the teacher dismisses the class, with a reminder to be quiet as they walk through the halls to the buses waiting out front.

A "Poor" Class. (ECERS mean of <=3). In this class, the teacher happens to be on morning bus duty which means that she supervises children's arrival from the buses in front of the school and deals with late-arriving children, leaving the assistant to lead the first 25 minutes of class. Few children are greeted. As the children sit at their individual desks, the day begins with a recitation of the rules posted on the blackboard. Included among them are, "We must practice self-control." The children have obviously learned these rules, because they are indeed very

quiet and orderly. Lunch money is collected. Most materials displayed on the walls and bulletin boards are ready-made, for example, lists of numbers and a border of small and capital letters around the top of the blackboards. The only children's work seen is on one bulletin board where the "best" examples of some children's drawings of zoo animals have been displayed.

When the teacher returns, children are assigned to go to their "centers", but most centers consist of tables with worksheets to be done. In the language arts center children match beginning consonant sounds with pictures, and then color the picture. In the math center the ditto includes drawings of several sets of objects and some numerals. Children must draw a line from each numeral to the correct set of objects, and then color the picture. Few dress-up clothes are available in the housekeeping center, but children ask to get assigned there. No talking is allowed during this time, even in housekeeping, except to ask the teacher a question. She rotates among centers seeing if the work is being completed correctly. She focuses on the accuracy of their work and their behavior. Happy face stickers are added to good papers. Punishment for children who break a classroom rule is that they must leave their center and go to their desks to sit still. Meantime, the assistant has gone to the office with lunch money and a set of worksheets to copy.

After center time, the class goes to the computer room where Writing to Read is taught. All children must use the materials in the same way. The progression through the program is controlled by the instructor, not the child.

Following this, the teacher helps the class line up in a pre-assigned order to go to the cafeteria. Children who had received marks on the blackboard (demerits) that morning must get in the back of the line. Children are not allowed to talk on their way to the cafeteria, but once in the cafeteria, it is incredibly noisy. Because of the number of children who must be fed in this school, only 20 minutes are allowed for lunch. Teachers all sit together at one table. Lunch is over by 11:00.

After lunch, outdoor playtime is scheduled. There is no fenced-in area for young children, although streets border 2 sides of the playground. There is no appropriately-sized equipment, and what little there is, is unsafe. Two metal rods stick out of the ground near the jungle gym. Standing water is in several places near the building. The teacher supervises this activity by observing from the sidelines. She knows that the playground is lacking, but feels like the children would be too restless indoors without outdoor time. Playtime ends soon because the class must get back inside for their scheduled library

time. They again line up to walk through the halls to their class to get their books, to the library, and then back.

Near the end of the school day, children are given a rest time. They lie down on blankets brought from home and a quiet record is played. The teacher used to schedule rest time earlier in the afternoon, but found it too hard to awaken children, so now schedules it last during the day. Children with more than 3 marks on the blackboard take home an already prepared form note to the parents. Children take their ditto sheets home with them at the end of the day. Some are very proud of the happy face stickers on them.