DOCUMENT RESUME

ED 402 335 TM 025 914

AUTHOR Tuck, Kathy D.
TITLE Assessment of the Continuous Progress Report for the Early Learning Years (An Examination of Scale Construction).
INSTITUTION District of Columbia Public Schools, Washington, DC. Research Branch.
PUB DATE Jan 95
NOTE 74p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Academic Achievement; *Child Development; Demonstration Programs; Early Childhood Education; *Evaluation Methods; Language Arts; Mathematics; Measures (Individuals); Physical Development; Reading; *Report Cards; *Student Evaluation; Student Placement; Teacher Education; *Validity; Writing (Composition)
IDENTIFIERS *District of Columbia Public Schools

ABSTRACT

An evaluation was conducted to examine the structure and design of the Continuous Progress Report (CPR), an observation scale used to measure students' early developmental skills in the District of Columbia public schools. Item construction and the relative consistency of measurement constructs in the CPR were the specific focus of the evaluation. Content, criterion-related, discriminant, and construct validities were examined, and a measure of internal reliability was obtained to reinforce findings of construct validity. One kindergarten and one first grade class were selected from each of the seven sites participating in the school system's Early Childhood Demonstration Project. These 14 classes served 193 students. The CPR contains five assessment areas: (1) personal and social development; (2) reading, writing, and language arts; (3) creative arts; (4) physical development; and (5) mathematics and science. Validity assessments resulted in a recommendation that the use of the CPR be continued for all students participating in continuous progress/nonretention models in the early learning years, with refinement of the components for physical development, social and cultural understanding, and grade/placement level. Teacher training should place more emphasis on communication with parents, timeliness and quality of interventions, and student self-perceptions. External measures of interrater reliability and concurrent validity should be developed. Appendixes present report evaluation data, samples of the CPR for several years, and a glossary of terms. (Contains 10 tables, 7 appendix tables, and 16 references.) (SLD)

ASSESSMENT OF THE CONTINUOUS PROGRESS REPORT FOR THE EARLY LEARNING YEARS

(An Examination of Scale Construction)

District of Columbia Public Schools

Franklin L. Smith

Superintendent of Schools

Chief State School Officer

January 1995

District of Columbia Public Schools

ASSESSMENT OF THE CONTINUOUS PROGRESS REPORT FOR THE EARLY LEARNING YEARS

(AN EXAMINATION OF SCALE CONSTRUCTION)

Office of Educational Accountability, Assessment and Information

Shelia G. Handy
Deputy Superintendent

Prepared By:

Kathy D. Tuck
Senior Research Associate
Research Branch

Technical Assistance:
Correne S. Cannon

January 1995

EXECUTIVE SUMMARY

The primary objective of this evaluation was to examine the structure and design of the Continuous Progress Report (CPR), an observation scale used to measure students' early, developmental skills in the D.C. Public Schools (DCPS). Specifically, this evaluation examined item construction and the relative consistency in the measurement of constructs by the CPR. The central approach to this evaluation was to examine the "internal" validity and reliability of the CPR, as opposed to "external" measures where the population generalizability is of primary concern. Also, information on teacher training and perceptions were obtained to examine the utility of the CPR.

Methodology

Four types of validity were assessed in this evaluation: (1) content validity--the representativeness or adequacy of the CPR content to the extent that appropriate developmental skills have been identified for assessment; (2) criterion-related or predictive validity--the extent to which the assessment of pre-requisite developmental skills can predict the attainment of requisite developmental skills; (3) discriminant validity--the extent to which CPR ratings are able to differentiate between projected needs for improvement; and (4) construct validity--the extent to which the items of the CPR collectively represent the individual constructs they are intended to measure. In addition, one measure of internal reliability was obtained for the CPR to reinforce the findings of construct validity. In sum, these measures provided information on specific strengths and weaknesses of the CPR, and will serve to further direct DCPS efforts in modifying and improving the instrument.

One kindergarten and one first grade class was randomly selected from each of the seven (7) elementary school sites which participated in the Early Childhood Demonstration Project during the initial implementation in SYs 1991-92 and 1992-93 (N=14 classes, 193 students). In addition to collecting student data, surveys were administered to kindergarten and first grade teachers who had taught in one of the demonstration centers for at least one full school year.

Results

Content Validity

The CPR is comprised of five assessment areas: (1) personal and social development; (2) reading, writing and language arts; (3) creative arts; (4) physical development; and (5) mathematics and science. The Work Sampling System (WSS), developed at the

Center for Human Growth and Development, University of Michigan, was used as a model in the development of the CPR, and the level of WSS attribution resulted in strong content validity for the CPR. The distribution of WSS items as descriptors across the various areas of the CPR, particularly across non-parallel areas, reflects the degree of versatility with which the CPR was designed. However, findings revealed that the WSS component for "social and cultural understanding" attributed less to the CPR than other WSS components, particularly at the kindergarten level, and the CPR components for "physical development" and "creative arts" were not developed to the same capacity (e.g., the relative number of items) as the other components of the CPR.

Criterion-Related (Predictive) Validity

The evaluation further revealed that CPR ratings were assigned consistently across the fall and spring reporting periods, and in the areas of "personal and social development" and "mathematics and science" there was a high level of consistency in ratings across a longer period of time (i.e., as much as four reporting periods). Grade level, school site and gender were found to be independently related to CPR ratings in the academic areas but only indirectly related to students' development in non-academic areas. The greatest amount of variability between students' ratings was found in the academic areas, while students generally received high CPR ratings in the non-academic areas.

Discriminant Validity

Teachers were found to be consistent in their comments about students' strengths and weaknesses in most developmental areas. In areas where students could be distinguished by their CPR ratings, teachers were found to have commented appropriately, and where CPR ratings were consistently high and showed no significant group distinctions, teachers' comments were also supportive. Students made numerous comments about their strengths and weaknesses, but only their comments in the areas of "personal and social development" and "mathematics and science" were found to be significantly associated with their CPR ratings.

Construct Validity and Reliability

CPR items included in each of the developmental areas provide strong representation for the developmental constructs measured. While most developmental areas of the CPR were represented by more than one construct, the item construction clearly differentiated between each construct as evidenced by the factoring and clustering patterns. Certain items in the academic areas were, however, found to have strong, cross-over relations

with each other. Also, for each developmental area, except "physical development", the majority of the variance in students' ratings could be directly attributed to the constructs measured in the CPR.

In general, all components of the CPR, except physical development, revealed strong and stable item cohesion. In the area of "physical development", the single item representing gross motor skills was not stable in its relationship to the overall construct, and there was a strong dependency of the construct on the two items representing fine motor skills. Findings for the area of "physical development" revealed the need for additional items to be included on the CPR to increase the strength of measurement and to assess both fine and gross motor development through separate constructs.

Utility of the Continuous Progress Report

Teachers perceived they were adequately prepared to teach in the continuous progress/non-retention model, and generally had positive perceptions of the instructional methods utilized. Teachers were highly supportive of the individualized, child-centered approach to teaching, but were concerned about parents' ability to understand the continuous progress approach and the CPR. This concern was strongest among teachers with five years or less experience in teaching at the early childhood level. Teachers also expressed concerns about the lack of clear benchmarks throughout the continuous progress years and the timeliness of interventions in the absence of progress.

With further regard to the utility of the CPR, it was noted that students' grade/placement level was not designated on the CPR although students' skill expectations are delineated by grade level in the CPR guidelines, and placement of students in the continuous progress model currently adheres to the district-wide grade level structure for DCPS.

Recommendations

Based on the findings of this evaluation, the following recommendations are offered:

(1) The use of the CPR in assessing the developmental progress of students should be continued for all students participating in continuous progress/non-retention model for the early learning years with the following refinements:

(a) the component for "physical development" should be expanded to include a wider range of items representing

both fine and gross motor skills;

(b) the WSS component for "social and cultural understanding" should be used more exhaustively as a referent/attribute for CPR items in the various components, particularly for "personal and social development"; and

(c) grade/placement level should be designated on the CPR to clarify the scope of expectations upon which the student ratings are based;

(2) Teacher training should place more emphasis on:

(a) better communication with parents in the interpretation of CPR ratings and overall student progress, particularly for teachers with five or less years of experience in early childhood education;

(b) the timeliness and quality of interventions offered to students in the absence of developmental progress at designated benchmarks throughout their participation in the model; and

(c) the reinforcement of students' self-perceptions and awareness of their developmental skills and their verbal or written articulation of strengths and weaknesses for inclusion on the CPR; and

(3) Before the use of the CPR is expanded district-wide, the following external measures of validity and reliability should be conducted in order to determine the extent to which the findings of this evaluation can be generalized to all students in DCPS:

(a) measures of inter-rater reliability to determine the consistency across teacher ratings for the same students, which will be particularly important for students as they change teachers throughout their primary school years; and

(b) measures of concurrent validity to determine the extent to which skill ratings on the CPR correlate with other measures of skills (e.g., anecdotal records and student portfolios maintained along with the CPR) and with other standardized assessments (e.g., the Child Behavior Scale); external measures of concurrent validity will provide some indication of the "accuracy" of skill ratings, while the internal measures of this evaluation were focused on the level of "consistency" in skill ratings.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF TABLES (Continued)

INTRODUCTION

Collectively, school districts across the U.S. spend approximately $10 billion a year to pay for the extra year of schooling resulting from the retention of 2.4 million students (Center for Policy Research in Education, 1990). The proportion of overage students in grades 1 through 12 (i.e., students most likely retained one or more times) is reported to be 31% for males and 22% for females. Also, for male students, 42% of African-Americans are found to be overage as compared to 39% of Hispanics and 29% of whites.

In recent years, however, controversies on the educational advantage of retaining students in grades have increased. While many educators and scholars believe that having students repeat a grade is an effective solution to remediation, a number of research studies have shown this does not work as intended for assuring mastery of skills or the avoidance of failure in later grades and dropout prevention. For example, a synthesis of research on the effect of school retention found in fifty-four out of sixty-three studies that when retained children were finally promoted to the next grade level their average performance was poorer than their counterparts who had similar achievement levels initially but had not been retained (Holmes, 1989). Moreover, students showing positive gains from retention were found to have received extra help through individualized programs and smaller classes, but the benefits of the extra assistance was found to diminish over time.

Apart from academic losses, retained students are also found to perform more poorly on measures of social adjustment, attitude toward school, behavioral outcomes and attendance (Holmes, 1989). Additional studies have found correlations between retention and dropping out of school (DCPS, 1988; Grissom and Shepard, 1989). These outcomes have been attributed, in part, to students' perceptions of retention. Interviews with students found that retention is perceived as punishment (Byrnes, 1989), and the only two life events that students indicated were more stressful than retention was going blind or losing a parent (Center for Policy Research in Education, 1990). Other explanations as to why retention does not work suggest that repeating the entire grade is a crude and ineffective way to individualize instruction since a child may be deficient in certain subjects but not in others. Critics further point out that retention also contributes inappropriately to teaching practices because teachers tend to adjust their instruction to the attention span and learning needs of the older students in the class.

As an alternative to grade retention, schools have begun implementing strategies for remedial help, such as providing

extra instructional aides for targeted students within the regular classroom and peer tutoring. Some states have also been experimenting with alternative structures of schools. For examples, the accelerated school models and continuous progress models have been piloted statewide in some areas and promote a philosophy which focuses on students' strengths rather than their weaknesses (Center for Policy Research in Education, 1990). Also, some schools have begun supporting the view that poorly achieving students need more inspiring and challenging curriculums. These new approaches are embedded in learning theories which suggest that skills can be learned more effectively and applied to new problems when they are learned in context and at an individualized pace.

Retention in the Early Years

In spite of the research, however, retention is particularly commonplace across the U.S. in the early years of schooling. Retention in the primary grades is due, for the most part, to the belief that early retention or exclusion altogether, especially for "immature" children, will have beneficial effects on later schooling. Yet, there is a growing concern with the validity and reliability of tests and other assessments being used to make these critical decisions on school readiness, retention and placement. Also, there is a concern that instruments designed for developmental assessments are used incorrectly, and the subjective interpretation of data, including decisions about cut-off scores, have potential for misuse (Meisels, 1987).

Along with misguided approaches to assessment, there is also the long-standing debate on providing developmentally appropriate curricula. In fact, more than a dozen national associations have issued position statements against the destructive trends in early-grade curricula (Shepard, 1989).

Retention in D.C. Public Schools

In the D.C. Public Schools (DCPS), grade retention is most apparent in the early grades. For the past several years, retention rates at the elementary school level have been the highest in grades one through three (DCPS, 1993). Although rates of retention have increased overall for DCPS, the highest retention rate at the elementary level has continually been noted in grade one. Approximately 1,000 first graders have been retained, on the average, each year since 1987, including approximately 10.4% of the first grade class for SY 1992-93 and 11.95% for SY 1993-94. Retention rates for second and third grade students were only slightly lower at 8.5% and 7.3%, respectively, for SY 1992-93, and notable improvements are seen at grade six with a 4.6% rate of retention.

In an effort to reduce the rate of retention during the primary years of school, the DCPS began the planning and development of an effective model for the early learning years. First, a three year longitudinal study was conducted to examine the effects of curriculum and instructional practices on achievement and socio-emotional development (DCPS, 1990). This study found clear evidence that classrooms implementing an active, child-initiated learning experience, as opposed to the more academically, teacher-directed approach, facilitated developmental progress during the early learning years. Children participating in the child-centered classrooms also had higher promotion rates in the first grade. As a result, the DCPS Superintendent and Board of Education approved the implementation of Early Childhood Demonstration Centers in seven (7) elementary schools. These centers serve as training sites for teachers and administrators where they observe integrated skills and strategies necessary to improve the quality of the early learning program. The training approach for teachers takes into account the child's developmental level, chronological age and learning style.

The demonstration centers have the latitude to design and implement a curriculum based on child development principles and practices. Also, students' progress is measured using authentic assessments such as student portfolios, video clips, anecdotal records and teacher observation forms. These assessments provide a profile of students and are used to develop and modify individualized education plans (IEPs) as students move continuously and progressively from pre-kindergarten through the third grade. At the end of the third grade year, a child who has not mastered the universe of knowledge necessary for success at the upper elementary level will remain in the early childhood unit until mastery is completed. The continued use of IEPs during this period is expected to facilitate development in deficient areas.

Student progress is reported twice a year in a Continuous Progress Report (CPR) which provides an overview of students' developmental skills. The CPR is the primary medium used to document and summarize the developmental progress of students participating in the continuous progress schools and is the primary focus of this evaluation. The CPR was constructed as an abbreviated version of the Work Sampling System (WSS)--a checklist developed by Samuel J. Meisels (1993) at the Center for Human Growth and Development, University of Michigan. The assessment components of the CPR include: (a) personal and social development; (b) reading, writing and language arts; (c) physical development; (d) creative arts; and (e) mathematics and science.

EVALUATION OBJECTIVES

The primary objective of this evaluation was to examine the structure and design of the Continuous Progress Report (CPR). Specifically, this evaluation assessed item construction and the relative consistency in the measurement of constructs by the CPR. The evaluation was expected to also examine the utility of the instrument design and the adequacy of teacher ratings for developmental skills.

The central approach to this evaluation was to assess the "internal" validity and reliability of the CPR, as opposed to "external" measures where the population generalizability is of primary concern. Internal measures of the CPR reflected the degree of item relevance and strength of measurement for the constructs as well as teachers' training and adherence to the guidelines established for developmental expectations.

Validity

Four types of validity were measured in this evaluation: (1) content validity--the representativeness or adequacy of the CPR content to the extent that appropriate developmental skills have been identified for assessment; (2) criterion-related or predictive validity--the extent to which the assessment of pre-requisite developmental skills can predict the attainment of requisite developmental skills; (3) discriminant validity--the extent to which CPR ratings are able to differentiate between projected needs for improvement; and (4) construct validity--the extent to which the items of the CPR collectively represent the individual constructs they are intended to measure.

This evaluation design presumed that while the CPR may have strength in, for example, content validity (i.e., the representation of the universe of developmental skills), it could, perhaps, show a weakness in criterion-related validity (i.e., the ability to predict subsequent performance levels of students). Such findings would highlight the need for improvements in the rating system of the CPR and/or training of classroom teachers in observing and identifying skill attainment in students. In sum, this assessment was expected to provide information to identify specific strengths and weaknesses of the CPR and to direct program efforts in modifying and improving the instrument.

Reliability

One measure of internal reliability was obtained for the CPR to reinforce the findings of construct validity. A measure of

the internal "alpha" reliability reflected the extent to which items included in each CPR component are related, overall, and further reflected the measurement strength of each construct within the CPR components.

In addition to evaluation measures obtained for the overall sample of students, group measures on validity and reliability were obtained by grade level, school and gender. However, with the exception of content validity, only those findings for the overall sample will be discussed unless significant group differences were detected.

METHODOLOGY

Sampling and Data Collection Procedures

The seven (7) elementary schools, which initially participated in the Early Childhood Demonstration Project, were included in this evaluation. Data were collected on students enrolled at the end of SY 1992-93 and included one kindergarten and one first grade class randomly selected from each school site (N=193 students; 14 classes).

The CPRs completed for both fall and spring reporting periods of SY 1992-93 were obtained for all students taught in the classrooms selected. For the first grade class, CPRs from both their first grade (SY 1992-93) and kindergarten year (SY 1991-92) were obtained. Table 1 provides a description of student participants.

Classrooms selected for participation were found to have been taught by the same teacher for the entire school year, and the same teacher completed both the fall and spring CPRs for students. Thus, measures of predictive validity examined here were minimally impacted by the extraneous variability of teacher differences.

In addition to collecting student data, surveys were administered to kindergarten and first grade teachers (N=25) who had taught in one of the demonstration centers for at least one full school year; three (3) demonstration centers were represented in the teacher sample. Information was obtained on teachers' level of training and preparation for the continuous progress approach as well as their perception of the CPR's utility.

TABLE 1

SELECTED KINDERGARTEN AND FIRST GRADE STUDENTS
ENROLLED IN EARLY CHILDHOOD DEMONSTRATION CENTERS

SELECTED STUDENTS	w/ SY 1992-93 CPRs	w/ SY 1991-92 CPRs
Kindergarten (n= 91)	91	0
First Grade (n=102)	102	89 (During Kindergarten)
TOTAL (N=193)	193	89

NOTE: CPRs for SY 1991-92 were not available for 13 first grade students who did not attend a Demonstration Center during their kindergarten year.

Data Conversions

Each scale item on the CPR describes a developmental skill for which levels of expectation are defined by grade level in the guidelines for teachers (DCPS, 1991b). Each scale item receives a qualitative rating by teachers, such as "established and frequently observed" or "sometimes observed" (see Appendix-B).

For purposes of this evaluation, it was necessary to convert teacher ratings into quantitative scores with weighted values. Therefore, the original teacher ratings were converted to the following numerical weights:

TEACHER RATING	WEIGHTED VALUE
not yet expected (N)	0
sometimes observed (S)	1
established and frequently observed (E)	2
emergent writer/reader	1
early writer/reader	2
fluent writer/reader	3
understands concepts of operations: no	0
yes	1
understands place values: two digits	1
three digits	2

EVALUATION FINDINGS

Content Validity

To assess the content validity of the CPR, the Work Sampling System (WSS) was used for comparison. The evaluation of content validity typically relies on the judgement of experts or individuals knowledgeable about the particular subject matter (Kerlinger, 1973), and the WSS served as the "expert" for this validation. The strength of correlations reported by Meisels and colleagues (1993) for the WSS reflect a high level of concurrent validity or content similarity with other measures, such as the Woodcock-Johnson Psychoeducational Battery-Revised (WJ-R) at .75 and the Child Behavior Scale at .80. Measures of internal reliability for the WSS ranged from .87 to .94, indicating a high degree of relevance between the items within each construct.

The developmental skills measured by each construct on the CPR were compared to the universe of skills represented in the WSS. The extent to which the CPR items represented developmental skills identified in the WSS was determined based on the CPR rating guidelines established for classroom teachers (DCPS, 1991b). For teacher observations, the CPR rating guidelines identified the WSS items to be used as operational descriptives for each CPR item, and thus, provided a wide range of observable behaviors and characteristics of the skills measured by the CPR. The extent to which WSS items were cited as descriptors in the CPR guidelines was assessed through an examination of proportions. The level of WSS attribution was examined for both kindergarten and first grade levels.

As shown in Tables 2a and 2b, the WSS comprises seven (7) developmental areas, while the CPR is comprised of five (5) areas. Scale differences were noted whereby the WSS included separate components for "mathematical thinking" and "scientific thinking", while the CPR had a combined "mathematics and science" component. Also, the WSS included a separate component for "social and cultural understanding", while the CPR incorporated such relevant skills into the two components of "personal and social development" and "creative arts".

Findings on content validity, as shown further in Tables 2a and 2b, revealed that the majority of the WSS items were cited as attributes or descriptors in the CPR guidelines. For six (6) of the seven (7) WSS components, 85.7% to 100% of the items were inferred as attributes for CPR items at both the kindergarten and first grade levels. The WSS component which made the least attribution to the CPR was "social and cultural understanding", with slightly more than one-half (57.1%) of the items used as referents for the CPR at the kindergarten level, and 71.4% were used at the first grade level.

TABLE 2a

ATTRIBUTION OF THE WORK SAMPLING SYSTEM TO THE GUIDELINES FOR THE CONTINUOUS PROGRESS REPORT FOR KINDERGARTEN STUDENTS

WORK SAMPLING SYSTEM (Total WSS Attribution)	CONTINUOUS PROGRESS REPORT					
	Personal & Social Dev	Read/Write/ Language	Physical Develop	Creative Arts	Math & Science	No Attribution to CPR
	Percent of WSS Attributed to CPR					
Personal & Soc Dev (85.7%)	78.5	14.2	0.0	14.2	0.0	14.3
Social & Cultural Understanding (57.1%)	28.5	0.0	0.0	14.2	0.0	42.9
Language & Literacy (100.0%)	0.0	100.0	0.0	8.3	0.0	0.0
Mathematical Thinking (94.4%)	16.6	22.2	0.0	0.0	83.3	5.6
Scientific Thinking (100.0%)	0.0	20.0	0.0	0.0	100.0	0.0
Art & Music (100.0%)	75.0	0.0	50.0	100.0	0.0	0.0
Physical Dev. (100.0%)	0.0	14.3	100.0	14.3	0.0	0.0

TABLE 2b

ATTRIBUTION OF THE WORK SAMPLING SYSTEM TO THE GUIDELINES FOR THE CONTINUOUS PROGRESS REPORT FOR KINDERGARTEN STUDENTS

WORK SAMPLING SYSTEM (Total WSS Attribution)	CONTINUOUS PROGRESS REPORT					
	Personal & Social Dev	Read/Write/ Language	Physical Develop	Creative Arts	Math & Science	No Attribution to CPR
	Percent of WSS Attributed to CPR					
Personal & Soc Dev (100.0%)	92.9	42.9	0.0	14.3	0.0	0.0
Social & Cultural Understanding (71.4%)	71.4	0.0	14.3	14.3	0.0	28.6
Language & Literacy (100.0%)	25.0	100.0	0.0	12.5	12.5	0.0
Mathematical Thinking (100.0%)	4.5	18.8	0.0	0.0	95.5	0.0
Scientific Thinking (100.0%)	0.0	50.0	12.5	0.0	100.0	0.0
Art & Music (100.0%)	0.0	0.0	75.0	100.0	0.0	0.0
Physical Dev. (100.0%)	0.0	14.3	100.0	0.0	25.0	0.0

As further noted in Appendix-A, Tables A1 and A2, each component of the CPR received attribution from multiple areas of the WSS. For most components of the CPR, one-quarter or more of the items were assigned guideline descriptors from non-parallel areas on the WSS. For example, the CPR component for "personal and social development" received 69.3% of the guideline descriptors at the kindergarten level from the WSS component for "personal and social development", while the remaining (30.7%) descriptors came from other WSS components (e.g., "social and cultural understanding", "mathematics thinking" and "art and music"). The CPR components receiving the greatest attribution from the WSS was on the order of: (1) reading, writing and language; (2) mathematics and science; (3) personal and social development; (4) creative arts; and (5) physical development.

SUMMARY: The WSS was a strong attribute to the content of the CPR and, thus, ensured a high level of content validity. The usage and distribution of WSS items as descriptors across the various areas of the CPR, particularly across non-parallel areas, reflected the degree of versatility with which the CPR was designed. However, the WSS component for "social and cultural understanding" made less attribution to the CPR than other WSS components, particularly at the kindergarten level.

Criterion-Related (Predictive) Validity

The assessment of criterion-related or predictive validity for the CPR was based on the correlation between students' most recent CPR ratings and all previous CPR ratings. Assuming the CPR was generally strong in its criterion-related or predictive validity, then significant correlations would be expected between skill ratings on the same components at the previous reporting periods--indicating continuous progress. It was presumed that, while individual students might vary in their degree of gain from one reporting period to the next, students, on the whole, would show consistent and steady progress in skill attainment within the developmental areas measured.

"Multiple regression analyses" (Kerlinger and Pedhazur, 1973) was used to determine the magnitude and direction of the relationship between the most recent CPR ratings (spring, SY 1992-93) and the CPR ratings for the previous three school semesters (fall SY 1991-92 through fall SY 1992-93). The CPR ratings for the previous year (SY 1991-92) were available only for the current first graders since the project began during their kindergarten year. Also, the CPR version used during the previous year was slightly different from the current version, but generally assessed the same types of developmental skills

(see Appendix-B).

Findings revealed that ratings assigned for "personal and social development", as well as for "mathematics and science" could be linked to students' ratings received at the kindergarten level despite noted differences in the CPR versions. As shown in Table 3a, cumulative effects were noted between current "mathematics and science" ratings for first grade students and ratings assigned since the beginning of their kindergarten year (R^2=.657, p<.001); [NOTE: The maximum possible correlation coefficient (R and r), indicating a perfect correlation, is 1.000]. Current ratings on "personal and social development" could be significantly predicted by ratings assigned since the last kindergarten semester (R^2=.714, p<.001). For other developmental areas, the current CPR ratings were significantly correlated with the ratings assigned during the prior fall semester only, but provided further evidence of the predictive validity of the rating system. Overall, results showed that between 36.6% and 71.4% of the variance found in the current ratings for each CPR component was directly correlated with previous CPR ratings.

Further analyses determined that factors other than previous ratings were also significant predictors of current CPR ratings. As shown in Table 3b, CPR ratings in two areas showed significant correlations with grade, school site and gender: (1) reading, writing and language arts (R^2=.121, p<.001); and (2) math and science (R^2=.083, p<.001). These findings suggest that CPR ratings in the academic areas can be directly predicted by group affiliation, while ratings in other developmental areas cannot be.

To further interpret the predictive capacity of group membership, ratings were examined to determine the level and sources of group variance. Analyses of group differences are shown in Appendix-A, Tables A3 through A7. Findings related to grade level differences in the academic areas confirmed that first grade students had more established skill levels than kindergarten students. Differences by school site were significant for all CPR components except physical development, and such differences in ratings across schools suggest that demographic and related factors generally found to influence students' performance are operating here as well. It is noted, however, that independent effects of school site were found only in the academic areas (see Table 3b). Gender differences were not directly apparent in any of the developmental ratings.

TABLE 3a

CORRELATION COEFFICIENTS FOR
PREVIOUS CPR RATINGS AS PREDICTORS OF CONTINUOUS PROGRESS

CPR COMPONENTS AND PREDICTORS	Beta Coeff (r)	Multiple Corr (R)	R^2 (Cumm)
PERSONAL AND SOCIAL DEVELOPMENT (Yr 2 - S)			
Yr 1 - F Personal and Social	-.022	.022	.000
Yr 1 - S Personal and Social	.849	.452	.204 **
Yr 2 - F Personal and Social	.774	.845	.714 ***
READING, WRITING AND LANGUAGE (Yr 2 - S)			
Yr 1 - F Reading, Writing and Language	.239	.239	.057
Yr 1 - S Reading, Writing and Language	.112	.248	.061
Yr 2 - F Reading, Writing and Language	.729	.748	.560 ***
PHYSICAL DEVELOPMENT (Yr 2 - S) a/			
Yr 1 - F Creative Arts/Physical Dev	-.201	.201	.040
Yr 1 - S Creative Arts/Physical Dev	-.118	.218	.047
Yr 2 - F Physical Development	.570	.605	.366 ***
CREATIVE ARTS (Yr 2 - S) b/			
Yr 1 - F Creative Arts/Physical Development	-.102	.102	.010
Yr 1 - S Creative Arts/Physical Development	-.247	.202	.040
Yr 2 - F Creative Arts	.653	.677	.458 ***
MATH AND SCIENCE (Yr 2 - S)			
Yr 1 - F Math and Science	.337	.337	.113 *
Yr 1 - S Math and Science	.567	.426	.181 **
Yr 2 - F Math and Science	.804	.810	.657 ***

NOTE: Yr 1 - F = SY 91-92, Fall Semester
Yr 1 - S = SY 91-92, Spring Semester
Yr 2 - F = SY 92-93, Fall Semester
Yr 2 - S = SY 92-93, Spring Semester (Current Rating)

a/ & b/ The SY 91-92 CPR version combined physical development and creative arts into a single component

* p<.05
** p<.01
*** p<.001

TABLE 3b

CORRELATION COEFFICIENTS FOR
GRADE, SCHOOL AND GENDER PREDICTORS OF CONTINUOUS PROGRESS

CPR COMPONENTS AND PREDICTORS	Beta Coeff (r)	Multiple Corr (R)	R^2
PERSONAL AND SOCIAL DEVELOPMENT			
Grade	-.118	.112	.012
School	.010	.113	.012
Gender	.129	.171	.029
READING, WRITING AND LANGUAGE			
Grade	.317	.302	.091 ***
School	-.174	.349	.121 ***
Gender	.001	.349	.121 ***
CREATIVE ARTS			
Grade	.059	.054	.002
School	-.095	.109	.011
Gender	.082	.136	.018
PHYSICAL DEVELOPMENT			
Grade	-.025	.013	.002
School	.088	.088	.007
Gender	.128	.156	.024
MATH AND SCIENCE			
Grade	.197	.178	.031 **
School	-.183	.225	.065 **
Gender	-.135	.289	.083 ***

** p<.01
*** p<.001

Examination of group ratings on the CPR also revealed higher levels of variance in students' ratings for the two academic components; ratings averaged 7 to 11 points below their maximum possible range (see Appendix-A, Tables A3 through A7). CPR ratings in non-academic areas were primarily at the high end of the rating continuum and showed less variance between students.

SUMMARY: In all developmental areas, CPR ratings were assigned consistently across the fall and spring reporting periods for SY 1992-93. In the area of personal and social development, as well as mathematics and science, there was a high level of consistency in ratings across the last two years (i.e., four reporting periods). Also, the greatest amount of variability between students' ratings was found in the academic areas, while students generally received high ratings in the non-academic areas and showed less variance. Grade level and school site were independently related to CPR ratings in the academic areas, while school site was only indirectly related to development in non-academic areas. Gender differences were noted only for academic areas of the CPR.

Discriminant Validity

To assess the capacity of the CPR to differentiate students' strengths and weaknesses, the assigned ratings for each developmental area were correlated with the occurrence of teachers' comments. The intended purpose of teachers' comments was to summarize the skill ratings and help parents understand their children's level of progress and areas of need. It was, therefore, expected that a child rated below the level of expectation in, for example, "mathematics and science" would receive comments on the CPR regarding such weakness and the need for improvement. Similarly, a child showing strength in "creative arts" should have received comments on the CPR regarding such strength. Although teachers were not expected to comment on all specific strengths and weaknesses of students, their comments were expected to provide a pointed summary to help parents interpret the rated skill scores on the CPR. Increased parental understanding would permit more constructive parental involvement.

The discriminant validity of the CPR was assessed by procedures of "discriminant analyses" (Kerlinger, 1973) which used the scale ratings to determined the expected likelihood of teachers' comments on strengths and/or weaknesses in each area. In sum, discriminant functions were computed for the actual "groups" (i.e., students who received a comment, and students who did not receive a comment) and were used to classify all students into predicted groups based on CPR ratings. Discriminant analyses were further used to determined the extent to which students were able to articulate their own developmental progress.

As shown in Table 4a, the majority of the comments (between 79.2% and 91.7%) made by teachers regarding students' strengths in specific developmental areas were correctly classified or predicted (by discriminant analyses) based on students' CPR ratings. Thus, teachers' comments appear to have been appropriate and consistent with their assignment of CPR ratings. However, closer examination revealed that CPR ratings for physical development could not reliably differentiate between teachers' comments, as noted by the non-significant measure of chi square association. Although 87.7% of the students who received positive comments on "physical development" were correctly identified based on their CPR ratings, it was further noted that teachers made positive comments about 69.2% of the students' physical development; the average CPR rating on "physical development" was 5.6 on a 6.0 scale. Therefore, the weak association between teachers' comments on physical development and CPR ratings in the area (r=.156; chi sq=4.58, n.s.) suggests the high percentage of correct (discriminant) classifications occurred by "chance" and was merely due to the high incidence of comments actually made by teachers. In assessing discriminant validity, both the predictive capacity and the context of the prediction was considered.

Further, correlations between CPR ratings and teachers' comments on students' weaknesses showed strong discriminant validity in all areas except "physical development" and "creative arts". Although students generally had strong CPR ratings for "physical development" and "creative arts" (means of 7.5 on an 8.0 scale and 5.6 on a 6.0 scale, respectively) less than one-half (21.4% to 41.2%) of students with weak CPR ratings in these areas received comments from teachers regarding such weaknesses.

As shown in Table 4b, students' CPR ratings were also compared to students' comments, but most were not found to be significantly related. Thus, the high percentage of correct classifications, based on CPR ratings, can mostly be attributed to the generally high incidence of comments actually made by students. The high frequency of students' comments on their strengths and weaknesses ensured that predictions of appropriate comments would correctly correspond to the incidence of comments. The only areas where students' comments on their abilities could be significantly associated with their CPR ratings were "personal and social development" (r=.341, $p<.05$) and "mathematics and science" (r=.499, $p<.001$).

TABLE 4a

DISCRIMINANT ABILITY OF CONTINUOUS PROGRESS RATINGS AND TEACHERS' COMMENTS ON DEVELOPMENTAL SKILLS

TEACHER COMMENTS:	Percent Correct Classification	Canonical Corr (r)	Chi Square
STRENGTHS			
Personal & Social Dev.	79.2	.445	39.46 ***
Reading, Writing & Lang.	82.8	.568	67.00 ***
Physical Dev.	87.7	.156	4.58
Creative Arts	91.7	.318	19.65 ***
Mathematics & Science	89.5	.610	46.49 ***
WEAKNESSES			
Personal & Social Dev.	60.5	.460	42.41 ***
Reading, Writing & Lang.	78.3	.504	50.58 ***
Physical Dev.	41.2	.174	5.70
Creative Arts	21.4	.192	6.94
Mathematics & Science	89.5	.455	46.49 ***

*** p<.001

TABLE 4b

DISCRIMINANT ABILITY OF CONTINUOUS PROGRESS RATINGS AND STUDENT COMMENTS ON DEVELOPMENTAL SKILLS

STUDENT COMMENTS:	Percent Correct Classification	Canonical Corr (r)	Chi Square
STRENGTHS			
Personal & Social Dev.	76.3	.341	22.11 *
Reading, Writing & Lang.	70.7	.279	14.03
Physical Dev.	91.4	.101	1.92
Creative Arts	18.8	.191	6.86
Mathematics & Science	82.8	.499	34.30 **
WEAKNESSES			
Personal & Social Dev.	66.7	.209	8.02
Reading, Writing & Lang.	66.7	.246	10.81
Physical Dev.	91.4	.158	4.69
Creative Arts	18.8	.072	.968
Mathematics & Science	82.8	.331	13.87

* p<.05
** p<.01

SUMMARY: Based on students' CPR ratings, teachers were consistent and accurate in their comments about students' strengths and weaknesses in most all developmental areas. In areas where students were differentiated by their CPR ratings, teachers were found to have commented appropriately, and where CPR ratings were consistently high and showed no significant group distinctions, teachers' comments were also supportive. However, teachers were less likely to comment on students' weaknesses in "physical development" and "creative arts", when appropriate, than in other areas. Students made frequent comments about their strengths and weaknesses, but their comments were not found to be significantly associated with their CPR ratings except in the areas of "personal and social development" and "mathematics and science".

Construct Validity

To assess the construct validity of the CPR, a statistical factoring procedure described as "principal components analyses" (Harman, 1967) was conducted. The scale items under each component of the CPR were factored into groups of items showing the strongest linear relationships. The factoring patterns reflected the extent to which all items under each component are related to each other and collectively contribute to their individual constructs. For example, in the area of "creative arts", the items measured children's creativity, imagination and expressiveness. Collectively, these ratings were expected to provide a summary of children's creative ability. Although a child may have been deficient or below expectation on one specific item or skill assessed in the area, the judgement of his/her creative arts ability would be made on the total items or construct as a whole. Therefore, it is important that each construct or factor on the CPR be comprised of items which give strength to the quality of measurement. In the factor analyses, the fewer the number of constructs or factors produced under each component, the more related the items are and the more narrow the focus of the CPR component.

Personal and Social Development. As shown in Table 5, items in the area of "personal and social development" produced two distinct factors or constructs, whereby items measuring personal skills were factored into one construct (Fct-1), and items representing social skills produced a second factor (Fct-2). As shown by their contribution to the variance, students' ratings on personal skills accounted for a larger share of the variance than social skills (47.5% and 12.3%, respectively) in the overall area. Individually, the items showing the greatest measurement strength in each construct were: (a) "shows willingness to try

TABLE 5
FACTOR LOADINGS OF SCALE ITEMS ON
THE CONTINUOUS PROGRESS REPORT

CPR COMPONENTS AND SCALE ITEMS		FACTOR LOADINGS Fct-1	Fct-2	Fct-3	Fct-4	Fct-5	Total Shared Variance
PERSONAL AND SOCIAL DEVELOPMENT							
(ITM #)							
7	Shows willingness to try something new	.818					
6	Plans work and makes choices	.797					
11	Persists with task until completed	.721					
4	Finds humor in situations	.713					
3	Is willing to take risks	.697					
2	Displays self-confidence	.649					
8	Works independently	.649					
5	Demonstrates self-control		.831				
9	Shares and takes turns		.793				
10	Deals w/ problem situations constructively		.775				
1	Show empathy and caring for others		.620				
12	Represents work carefully		.499				
EIGENVALUE		5.69	1.47				
PERCENT OF VARIANCE		47.5	12.3				59.8
READING/WRITING/LANGUAGE ARTS							
(ITM #)							
9	Understands and uses words appropriately	.771					
4	Recognizes words used frequently	.757					
5	Selects appropriate books to read or browse	.728					
8	Shows flexible and logical thinking	.648					
6	Reads for meaning	.635					
7	Writes for meaning	.628					
3	Listens to and makes appropriate comments	.549					
11	Writer: Emergent/Early/Fluent		.759				
12	Reads: Emergent/Early/Fluent		.745				
10	Uses techniques of editing		.733				
1	Contributes to discussions			.823			
2	Asks and answers questions clearly			.807			
EIGENVALUE		4.84	1.60	1.40			
PERCENT OF VARIANCE		40.4	13.3	11.7			65.4

(Continued)

TABLE 5 (Continued)

CPR COMPONENTS AND SCALE ITEMS	FACTOR LOADINGS Fct-1	Fct-2	Fct-3	Fct-4	Fct-5	Total Shared Variance
PHYSICAL DEVELOPMENT						
(Item #)						
2 Shows increasing eye-hand coordination	.845					
3 Uses writing/drawing tools w/ ... control	.833					
1 Moves with increasing balance and control	.209					
EIGENVALUE	1.45					
PERCENT OF VARIANCE	48.4					48.4
CREATIVE ARTS						
2 Shows interest in music/movement/art/drama	.935					
3 Uses imagination in drama, arts & projects	.935					
1 Experiments w/ new materials/activities	.861					
4 Plans, designs and completes creative proj.	.744					
EIGENVALUE	3.04					
PERCENT OF VARIANCE	76.1					76.1
MATHEMATICS AND SCIENCE						
1 Pursues scientific inquiry	.864					
3 Predicts/discusses outcomes of experiments	.720					
5 Explores materials/problems with curiosity	.713					
2 Makes and describes observations	.699					
12 Measures in: non-standard/standard units	.525					
9 Computes mentally		.831				
8 Makes appropriate estimates		.791				
17 Compares & orders quantities/numbers		.732				
14 Understands Concepts: Subtraction		.558				
15 Understands Concepts: Multiplication			.954			
16 Understands Concepts: Division			.946			
7 Sorts/classifies/compares objects				.807		
6 Identifies/extends/creates patterns				.736		
13 Understands concepts : Addition				.707		
11 Describes/classifies geometric solids/shapes					.852	
4 Represents sci conclusions in variety of way					.676	
10 Creates/interprets graphs					.598	
18 Understands place value to two/three digits	*----	----	----	----	----	
EIGENVALUE	4.20	2.20	1.96	1.50	1.45	
PERCENT OF VARIANCE	24.7	13.0	11.6	8.9	8.6	66.7

* Data insufficient for inclusion in factor analyses

something new" for personal skills (r=.818); and (b) "demonstrates self-control" for social skills (r=.831). The single item showing a factoring weakness (i.e., coefficient below .500) was "represents work carefully" (r=.499) for social skills.

Reading, Writing and Language Arts. The CPR component for "reading, writing and language arts" produced three separate constructs (see Table 5). All items with reference to reading skills formed a single factor (Fct-1), with the exception of one item which assessed the level of fluency in reading (item #12) and had a stronger relationship with students' writing ability or Fct-2 (r=.789). Similarly, one item assessing writing skills, "writes for meaning" (item #5), appeared to be strongly correlated with reading ability (r=.628). The third construct represented in the area was language arts (Fct-3) and encompassed two items designed to assess the application of reading and writing skills; each item showed a strong relationship to the factor produced.

Physical Development. The area of "physical development" was represented by three items which produced a single factor (see Table 5). However, the two items assessing "fine" motor skills appeared to be highly related to each other and to the overall construct (Fct-1), while the single item which represented "gross" motor skills (item #1) showed a weak relationship with the factored construct (r=.209). This measure of gross motor skills appears to be weakly represented in the construct and would likely produce a second factor if other similar items were available for inclusion in the factoring. As further shown in Table 5, less than one-half (48.4%) of the variance in students' ratings on physical development can be directly attributed to their performance on the skills measured. The inclusion of more items for gross motor physical development on the CPR would likely increase the total amount of variance accounted for in students' ratings, and would increase the strength of the measurement in the overall area.

Creative Arts. The area of "creative arts" was also represented by a relatively fewer number of items and was factored into a single construct (Fct-1) (see Table 5). However, a larger proportion (76.1%) of the variance in students' rating could be attributed to the skills measured, and suggested that these items, while limited, are highly representative of skills under this construct.

Mathematics and Science. The "mathematics and science" component of the CPR produced five constructs: (Fct-1) skills related to abilities in science, including the higher order

mathematics skills in non-standard units as required in science; (Fct-2) mathematics ranking ability; (Fct-3) higher order mathematics skills of multiplication and division; (Fct-4) mathematics grouping ability; and (Fct-5) mathematics spatial ability. As shown in Table 5, each factor produced eigenvalues above 1.0, suggesting that each is necessary to fully account for the variance shared (66.7%) across the "mathematics and science" area.

SUMMARY: Scale items included in the developmental areas of the CPR provide strong representation for most of the constructs measured. The developmental areas represented by more than one construct clearly differentiate between these constructs as evidenced by the clustering of relevant items, although certain items in the academic components appear to have strong, cross-over relations with each other. Also, for each area except "physical development", the majority of the variance in students' ratings could be directly attributed to the constructs measured. The correlational weakness found for the area of "physical development" revealed the need for additional items to assess both fine and gross motor development; additional items would likely yield separate constructs with increased strength of measurement for the overall area.

Reliability

The measure of internal reliability for the CPR was obtained using a statistical procedure which produces "alpha" or relational coefficients (Chronbach, 1951). The magnitude of the coefficients reflect the stability of item measurements within each developmental area. Instead of revealing the item clustering patterns (as in factoring for construct validity), the alpha reliability procedure provided a simplified, correlational coefficient describing the total strength of item cohesion.

As shown in Table 6, each area of the CPR, except "physical development", produced overall alpha coefficients (r) at or above .790, with the strongest item cohesion shown for "personal and social development" (r=.885). The CPR scale items representing the development of physical skills produced the lowest overall coefficient (r=.653) and provided further evidence of weak item cohesion in this area. Closer examination of the "physical development" component revealed that deletion of the single item which measured gross motor skills would improve the internal coefficient (r) for the overall construct to .777; and thereby, reflecting the need for separate constructs to measure fine and gross motor skills.

TABLE 6

INTERNAL RELIABILITY COEFFICIENTS OF
SCALE ITEMS ON THE CONTINUOUS PROGRESS REPORT

CPR CONSTRUCTS AND SCALE ITEMS	Overall Coeff (r)	Coeff (r) if Item Deleted
PERSONAL AND SOCIAL DEVELOPMENT	.885	
Show empathy & caring for others		.873
Displays self-confidence		.871
Is willing to take risks		.876
Finds humor in situations		.875
Demonstrates self-control		.874
Plans work & makes choices		.868
Shows will to try something new		.871
Works independently		.870
Shares & takes turns		.872
Deals w/ problem situations ...		.873
Persists w/ task until completed		.862
Represents work carefully		.870
TOTAL: Mean: 21.08		
Variance 11.65		
Std Deviation 3.41		
READING/WRITING/LANGUAGE ARTS	.866	
Contributes to discussions		.859
Asks & answers questions clearly		.855
Listens to & makes appropriate comments		.850
Recognizes works used frequently		.847
Selects appropriate books to read ...		.869
Reads for meaning		.849
Writes for meaning		.859
Shows flexible & logical thinking		.844
Understands & uses words appropriately		.853
Uses techniques of editing		.859
Writer: Emergent/Early/Fluent		.842
Reads: Emergent/Early/Fluent		.847
TOTAL: Mean 19.64		
Variance 16.74		
Std. Deviation 4.09		
PHYSICAL DEVELOPMENT	.653	
Moves w/ increasing balance & control		.777
Shows increasing eye-hand coordination		.319
Uses writing/drawing tools w/ ... control		.484
TOTAL: Mean 5.67		
Variance .517		
Std. Deviation .719		

(continued)

TABLE 6 (Continued)

INTERNAL RELIABILITY COEFFICIENTS OF
THE SCALE ITEMS OF THE CONTINUOUS PROGRESS REPORT

CPR CONSTRUCTS AND SCALE ITEMS	Overall Coeff (r)	Coeff (r) If Item Deleted
CREATIVE ARTS	.833	
Experiments w/ new materials/activities		.731
Shows interest in music/movement/art/drama		.791
Uses imagination in drama, arts & projects		.753
Plans, designs & completes creative projects		.802
TOTAL: Mean 7.53		
Variance 1.07		
Std. Deviation .833		
MATHEMATICS AND SCIENCE	.790	
Pursues scientific inquiry		.760
Makes & describes observations		.761
Predicts/discusses outcomes of experiments		.760
Represents sci conclusions in variety of ways		.761
Explores materials/problems with curiosity		.782
Identifies/extends/creates patterns		.782
Sorts/classifies/compares objects		.776
Makes appropriate estimates		.780
Computes mentally		.756
Creates/interprets graphs		.804
Describes/classifies geometric solids/shapes		.757
Measures in: non-standard/standard units		.754
Understands concepts of: Addition		* ---
Subtraction		.777
Multiplication		.752
Division		.752
Compares & orders quantities/numbers		.778
Understands place value to two/three digits		.786
TOTAL: Mean 7.53		
Variance 1.07		
Std. Deviation .833		

* Alpha coefficient was not computed; all students received the same rating on "concepts of addition" and the variance of scores was 0.00

SUMMARY: Each component of the CPR, except "physical development", revealed strong and stable item cohesion. In the area of "physical development", the single item representing gross motor skills was not stable in its relationship to the construct, and served to weaken the stability of the overall area.

Utility of the Continuous Progress Report

In addition to the assessment of validity and reliability, a qualitative assessment was conducted to examine the utility of the CPR. Classroom teachers were administered a brief survey regarding their: (a) overall level of classroom experience; (b) specific training in the DCPS continuous progress/non-retention approach to early childhood education; and (c) general perceptions of the continuous progress approach and CPR. These data were expected to provide supplementary and interpretive information for the measures of validity and reliability, as well as to inform DCPS administrators of staff strengths and training needs.

Teacher Preparation. Responding teachers had an average of 13.6 years teaching experience, in general, with more than one-half (60.0%) having 10 or more years of experience. The average number of years taught at the early childhood level was 8.8 years, and one-fourth (25.0%) of the teachers had 10 or more years of experience at this level. Beyond the bachelor's degree, 40.0% of all teachers had earned graduate degrees.

All (100.0%) teachers were certified to teach in early childhood education. The average number of courses taken in early childhood education within the past three years was 7.6, and 21.7% of the teachers had taken 10 or more courses. All teachers had taken at least one in-service course for the continuous progress/non-retention approach, and the average number of in-service courses taken was 6.3; 20.0% of the teachers indicated they had taken 10 or more in-service courses.

Teacher Perceptions. The majority of the teachers expressed favorable attitudes towards their in-service training and the continuous progress approach to early childhood education (see Table 7). The most positive rating was given by three-fourths (76.0%) of the teachers who indicated they "definitely" felt the continuous progress approach to early childhood education was better than the DCPS Competency Based Curriculum (CBC) and Student Progress Plan (SPP).

The majority of teachers (65.0%) indicated the greatest strength of the continuous progress model is the allowance of individualized, non-competitive progress. Nearly one-third (32.0%) also cited the focus of the child as the greatest strength of the model. However, one-third (33.3%) of the teachers further indicated the greatest weakness of this approach was parental understanding of the Continuous Progress Report. One-fourth (29.3%) of the teachers also raised issues of weakness in regards to interventions, such as the timeliness of remedial activities and the lack of defined benchmarks for skill attainment.

TABLE 7
TEACHER PERCEPTION OF THE
CONTINUOUS PROGRESS/NON-RETENTION APPROACH

SURVEY ITEMS:	PERCENT TEACHER RATING				
(A) How would you rate the quality of the in-service courses(s) you have taken for this demonstration project?	Excellent	Good	Fair	Poor	Not Sure
	38.5	53.8	3.8	0.0	3.8
(B) Do you feel this in-service training has better prepared you to observe and identify appropriate developmental skills in your students?	Definitely	Somewhat	Not At All		Not Sure
	57.7	34.6	3.8		3.8
(C) Do you feel this in-service training has adequately prepared you to complete the Continuous Progress Reports (CPR) for your students?	34.6	57.7	7.7		0.0
(D) Do you feel the continuous progress/non-retention approach to early child hood education is better than the more traditional approach used for the Competency Based Curriculum (CBC) and the Student Progress Plan (SPP)?	76.0	20.0	0.0		4.0
(E) Do you feel the continuous progress/non-retention approach helps parents to better understand the developmental need of their children?	38.5	53.8	3.8		3.8

	OPEN RESPONSES	PERCENT
(F) What do you feel is the greatest STRENGTH of the continuous progress/non-retention approach?	Individualized Progression	56.0
	Child-Centered Instruction	20.0
	Focus on Child Strengths	12.0
	Non-Competitive Learning	8.0
	Parent Understanding	4.0
(G) What do you feel is the greatest WEAKNESS of the continuous progress/non-retention approach?	Parental Understanding of CPR	33.3
	Does Not Address Interventions	29.3
	Ambiguous Guidelines	20.8
	Lack of Accountability	8.3
	Individual Progression	8.3

The one perspective that teachers differed on according to their years of experience or level of training was their belief regarding parental understanding of the Continuous Progress Report. Teachers with five years or less experience in early childhood education felt less certain than the more experienced teachers that the Continuous Progress Report would help parents to better understand the developmental needs of their children (chi sq.=7.9, $p<.01$).

Administrative Compatibility. With further regard to the utility of the CPR, the administrative compatibility with other DCPS practices was also considered. The one aspect of the CPR which appeared to be inconsistent with current administrative practices for the district was the omission of students' grade or placement level designation. While the concept of continuous progress/non-retention does not adhere to the confinements of rigid grade level designations, the CPR guidelines established for skill identification are, nevertheless, delineated by grade level. Also, students participating in the continuous progress approach are currently assigned placement levels within the overall DCPS grade level structure. Thus, the inclusion of grade level on the CPR would clarify the level of expectation upon which the skill ratings are based and would enhance the compatibility of the CPR with other, relevant administrative procedures within DCPS. For purposes of this evaluation, students' grade levels were identified through their classroom assignment and through the Student Information Management System (SIMS) when their assignment was to a mixed-graded class.

SUMMARY: Teachers seemed adequately prepared to teach in the continuous progress model, and generally had positive perceptions of the approach and of their training. Teachers were particularly supportive of the individualized, child-centered approach to teaching. However, teachers were concerned about parents' ability to understand the Continuous Progress Report, and this was particularly true for teachers with five years or less experience in teaching at the early childhood level. Teachers also expressed concerns about the lack of clear benchmarks throughout the continuous progress years and the timeliness of interventions in the absence of progress. It is also noted that grade level designations of students were not included on the CPR although skill expectations and students' placements in DCPS are currently differentiated by grade level.

CONCLUSIONS AND RECOMMENDATIONS

Measures of validity and reliability examined in this evaluation described general trends in the CPR composition as well as the consistency of the CPR rating procedures. The utility of the CPR was reflected, primarily, in teachers' perceptions and their training for the CPR, and further through their expectations, observations, and identification of requisite developmental skills in students. It is noted that this evaluation did not measure the "impact" of the continuous progress model or measure "gains" in students' performance. Rather, this assessment was designed, solely, to assess the efficiency with which the CPR measures the developmental skills of DCPS students participating in the continuous progress model.

Composition of the CPR

Results of this evaluation determined the CPR was strong in content validity, as noted through the large attribution of the WSS to the CPR and guidelines established for classroom teachers. Also, the WSS attribution of scale items to non-parallel constructs on the CPR was particularly noted. For example, nearly two-thirds of the kindergarten guideline descriptors for the CPR area of "personal and social development" were from the WSS component of "personal and social development", while the remainder were from the WSS components of "social and cultural understanding", "mathematics thinking" and "art and music". Such non-parallel attributions highlighted the versatility of the CPR content, while the exhaustive use of the WSS items as descriptors for the CPR reflected the comprehensive nature of the CPR. It was noted, however, that the WSS component of "social and cultural understanding" was not used as a referent to the extent that other WSS component were although these items represent skills of multi-cultural awareness that are fundamental to present philosophies of social development. It was further noted that grade level designation was not included on the CPR, although the rating guidelines are delineated by grade level; grade designation on the CPR would identify the level of expectation upon which the skills are rated, as well as identify students current DCPS placement level.

The content of the CPR was further examined with regard to the strength of measurement through item relatedness. The scale items under each area of the CPR showed strong factoring or clustering patterns for the individual constructs represented, and in those areas where more than one construct was represented, such as in mathematics and science, the items under each construct showed strong cohesion. Also, CPR ratings accounted for a relatively large percent of the variance found in each

developmental area, reflecting a greater strength of measurement in these items above other variables which might be related to skill development in DCPS students.

The single area of the CPR which appeared to be comparatively weak in content was "physical development". As confirmed by subsequent analyses, the content of this area does not include the range of developmental skills necessary to adequately measure students' physical development. This weakness is likely due to the limited number of items included under the area and resulting in: (a) an unclear distinction of gross motor skills; and (b) the strong dependency on two scale items to represent the wide universe of fine motor skills. The addition of more items which represent both fine and gross motor skills would likely improve the strength of measurement for this area. Unlike the area of "physical development", the area of "creative arts" showed strong item cohesion among the few items included, and the items were found to adequately represent the area.

Consistency of the CPR

Results further revealed a high level of consistency in students' ratings across reporting periods, confirming the ability of the CPR to detect steady progress in developmental skills over time. The CPR was found to be particularly strong in gaging student progress in the areas of "personal and social development" and "mathematics and science". The current CPR ratings in these two areas were found to have a significant relationship to students' ratings received in these areas during the previous school year and across the four rating periods. For all other developmental areas, the current CPR ratings were significantly predicted by the ratings received the previous semester only, but further reflected the capacity of the CPR to predict subsequent performance levels and the immediate need for intervention services.

It was also found that CPR ratings on the academic components could be significantly predicted by group affiliation, particularly grade level and school site. These findings suggest that academic performance of students within certain groups tend to meet teacher expectations better than other students, while group affiliation is not significantly related to skills in the non-academic areas of development. Moreover, students showed less variance in their non-academic ratings and were generally rated high in these areas. Findings for the non-academic areas are consistent with the expectations of child-centered, early learning models.

Teachers' comments on the CPR were found to be frequent and appropriate. Base on students' ratings in the developmental areas of the CPR, teachers were diligent in commenting on

students' strengths and weaknesses in most areas. However, students' comments about their own skills were less reflective of their assessed level of development. The only areas where students' comments were significantly related to their developmental progress were "personal and social development" and "mathematics and science". In general, students' comments did not reflect accurate self-perceptions and awareness of their skills as rated on the CPR.

Utility of the CPR

Teachers participating in the continuous progress model were found to be highly qualified and appeared to be very positive about their ability to teach effectively using this approach.; teachers were highly supportive of the child-centered, individualized method of teaching. However, teachers were concerned that the instructional approach did not adequately address the need for timely interventions in the absence of student progress, and teachers with less experience in early childhood education were concerned about parents' ability to adequately interpret the CPR and understand their children's developmental progress.

One noted aspect of the CPR which appeared to be less than compatible with current administrative practices of DCPS was the lack of a grade/placement level designation for students. While the continuous progress approach supports an individualized learning pace for students, skill expectations and the overall placement of students currently adheres to the DCPS grade level structure.

Recommendations

Based on the findings of this evaluation, the following recommendations are offered:

(1) The use of the CPR in assessing the developmental progress of students should be continued for all students participating in continuous progress/non-retention model for the early learning years with the following refinements:

(a) the component for "physical development" should be expanded to include a wider range of items representing both fine and gross motor skills;

(b) the WSS component for "social and cultural understanding" should be used more exhaustively as a referent/attribute for CPR items in the various components, particularly for "personal and social

development"; and

(c) grade/placement level should be designated on the CPR to clarify the scope of expectations upon which the student ratings are based;

(2) Teacher training should place more emphasis on:

(a) better communication with parents in the interpretation of CPR ratings and overall student progress, particularly for teachers with five or less years of experience in early childhood education;

(b) the timeliness and quality of interventions offered to students in the absence of developmental progress at designated benchmarks throughout their participation in the model; and

(c) the reinforcement of students' self-perceptions and awareness of their developmental skills and their verbal or written articulation of strengths and weaknesses for inclusion on the CPR; and

(3) Before the use of the CPR is expanded district-wide, the following external measures of validity and reliability should be conducted in order to determine the extent to which the findings of this evaluation can be generalized to all DCPS students:

(a) measures of inter-rater reliability to determine the consistency across teacher ratings for the same students, which will be particularly important for students as they change teachers throughout their primary school years; and

(b) measures of concurrent validity to determine the extent to which skill ratings on the CPR correlate with other measures of skills (e.g., anecdotal records and student portfolios maintained along with the CPR) and with other standardized assessments (e.g., the Child Behavior Scale); external measures of concurrent validity will provide some indication of the "accuracy" of skill ratings, while the internal measures of this evaluation were focused on the level of "consistency" in skill ratings.

REFERENCES

Byrnes, D.A. (1989) Attitudes of Students, Parents and Educators Toward Repeating A Grade. In, L.A. Shepard and M.L. Smith (eds.), Flunking Grades: Research and Policies on Retention. London: Falmer.

Center for Policy Research (January, 1990) Repeating Grades in School: Current Practice and Research Evidence. Policy Briefs.

Chronbach, L.J. (1951) Coefficient Alpha and the Internal Structure of Tests. Psychometrika, 16: 297-334.

District of Columbia Public Schools (DCPS) (1988) A Study of Students Who Left: D.C. Public Schools Dropouts. Washington, D.C.: D.C. Public Schools, Research and Evaluation Branch.

District of Columbia Public Schools (DCPS) (1990) Early Learning and Early Identification: Final Report of the Three Year Longitudinal Study. Washington, D.C.: D.C. Public Schools, Research and Evaluation Branch.

District of Columbia Public Schools (DCPS) (1991a) "Proposal for the Continuous Progress/Non-Retention Pilot in Washington, D.C.". Washington, D.C.: D.C Public Schools, Division of Early Childhood Education.

District of Columbia Public Schools (DCPS) (1991b) Continuous Progress Report Guidelines, Early Learning Years: Early Childhood Unit Pre-Kindergarten - Third Grade. Washington, D.C.: D.C. Public Schools, Division of Early Childhood Education.

District of Columbia Public Schools (DCPS) (1993) A Five Year Statistical Glance at D.C. Public Schools: School Years 1988-89 through 1992-93. Washington, D.C.: D.C. Public Schools, Division of Student Services.

Grissom, J.B. and Shepard, L.A. (1989) Repeating and Dropping Out of School. In, L.A. Shepard and M.L. Smith (eds.), Flunking Grades: Research and Policies on Retention. London: Falmer.

Harman, S.J. (1967) Modern Factor Analysis. (2nd Ed) Chicago: University of Chicago Press.

Holmes, C.T. (1989) Grade-Level Retention Effects: A Meta-Analyses of Research Studies. In, L.A. Shepard and M.L. Smith (eds.), Flunking Grades: Research and Policies on Retention. London: Falmer.

Kerlinger, F.N. (1973) Foundations of Behavioral Research. (2nd Ed) New York: Hold, Rhinehart and Winston, Inc.

Kerlinger, F.N. and Pedhazur, E.J. (1973) Multiple Regression in Behavioral Research. New York: Holt, Rhinehart and Winston.

Meisels, S.J. (1987) Uses and Abuses of Developmental Screening and School Readiness Testing. Young Children, 42 (2), 4-73.

Meisels, S.J.; Liaw, F; Dorfman, A; and Fails, R. (1993) "When Teachers Teach by Studying How Children Learn: The Effectiveness of a Comprehensive Performance Assessment of Young Children." Paper presented at the annual meeting of the American Education Research Association, Atlanta, Georgia.

Shepard, L.A. (1989) A Review of Research on Kindergarten Retention. In, L.A. Shepard and M.L. Smith (eds.), Flunking Grades: Research and Policies on Retention. London: Falmer.

APPENDIX - A

** TABLE A-1 THROUGH TABLE A-7

TABLE A-1

PERCENT OF CONTINUOUS PROGRESS REPORT
RECEIVING ATTRIBUTION FROM THE WORK SAMPLING SYSTEM
FOR KINDERGARTEN STUDENTS

CONTINUOUS PROGRESS RPT (Percent of Total WSS Attribution)	WORK SAMPLING SYSTEM						
	Person & Soc Dev	Soc & Cult Understand	Lang & Litrcy	Math Think	Sci Think	Art & Music	Physical Dev
	Percent of CPR Receiving Attribution						
Personal & Social Dev (23.9)	69.3	7.7	0.0	11.5	0.0	11.5	0.0
Read/Write/ Language (30.1)	8.8	0.0	76.5	11.8	2.9	0.0	0.0
Creative Arts (9.7)	27.3	9.1	9.1	0.0	0.0	45.4	9.1
Physical Development (8.0)	0.0	0.0	0.0	0.0	0.0	22.2	77.8
Mathematics & Science (28.3)	0.0	0.0	0.0	75.0	25.0	0.0	0.0

TABLE A-2

PERCENT OF CONTINUOUS PROGRESS REPORT
RECEIVING ATTRIBUTION FROM THE WORK SAMPLING SYSTEM
FOR FIRST GRADE STUDENTS

CONTINUOUS PROGRESS RPT (Percent of Total WSS Attribution)	WORK SAMPLING SYSTEM						
	Person & Soc Dev	Soc & Cult Understand	Lang & Litrcy	Math Think	Sci Think	Art & Music	Physical Dev
	Percent of CPR Receiving Attribution						
Personal & Social Dev (22.4)	76.1	13.0	8.7	2.2	0.0	0.0	0.0
Read/Write/ Language (31.7)	15.4	0.0	70.7	7.7	6.2	0.0	0.0
Creative Arts (8.8)	11.1	5.6	22.2	0.0	0.0	50.0	11.1
Physical Development (7.8)	0.0	0.0	12.5	0.0	6.3	18.8	62.4
Mathematics & Science (29.3)	0.0	0.0	8.3	60.0	31.7	0.0	0.0

TABLE A-3

DISTRIBUTION OF CONTINUOUS PROGRESS RATINGS ON
PERSONAL AND SOCIAL DEVELOPMENT
BY GRADE, SCHOOL AND GENDER

PERSONAL & SOC DEVELOPMENT	MAX. POSSIBLE OVERALL RATING	RANGE OF RATINGS (MIN - MAX)	MEAN RATING	STD DEV	VARIANCE	F
TOTAL (N=189)	24.00	(8.00 - 24.00)	21.09	3.38	11.47	
GRADE						n.s.
Kindergarten (n=89)		(14.00 - 24.00)	21.49	2.73	7.48	2.41
Grade 1 (n=100)		(8.00 - 24.00)	20.73	3.85	14.48	
SCHOOL						***
Sch-A (n=19)		(15.00 - 24.00)	21.42	2.77	7.70	10.49
Sch-B (n=32)		(12.00 - 24.00)	18.90	3.41	11.63	
Sch-C (n=22)		(18.00 - 24.00)	23.09	1.41	1.99	
Sch-D (n=30)		(20.00 - 24.00)	23.36	1.15	1.34	
Sch-E (n=27)		(16.00 - 24.00)	20.56	2.27	5.17	
Sch-F (n=24)		(8.00 - 24.00)	18.70	5.33	28.47	
Sch-G (n=35)		(16.00 - 24.00)	21.71	2.61	6.85	
GENDER						n.s.
Male (n=89)		(8.00 - 24.00)	20.63	3.64	13.31	2.98
Female (n=101)		(12.00 - 24.00)	21.48	3.10	9.65	

n.s. = non-significant
*** p<.001

TABLE A-4

DISTRIBUTION OF CONTINUOUS PROGRESS RATINGS ON
READING, WRITING & LANGUAGE ARTS
BY GRADE, SCHOOL AND GENDER

READ, WRITING & LANG ARTS	MAX. POSSIBLE OVERALL RATING	RANGE OF RATINGS (MIN - MAX)	MEAN RATING	STD DEV	VARIANCE	F
TOTAL (N=190)	26.00	(6.00 - 26.00)	19.31	4.26	18.20	
GRADE						***
Kindergarten (n=89)		(9.00 - 24.00)	17.94	3.56	12.71	18.95
Grade 1 (n=101)		(6.00 - 26.00)	20.52	4.48	20.07	
GENDER						n.s.
Male (n=89)		(6.00 - 26.00)	19.26	4.12	17.04	.019
Female (n=101)		(9.00 - 26.00)	19.35	4.40	19.41	
SCHOOL						***
Sch-A (n=19)		(11.00 - 25.00)	20.94	5.07	25.71	8.39
Sch-B (n=32)		(10.00 - 25.00)	18.46	4.18	17.54	
Sch-C (n=22)		(12.00 - 24.00)	21.04	2.90	8.42	
Sch-D (n=31)		(15.00 - 26.00)	21.61	2.90	8.45	
Sch-E (n=27)		(9.00 - 22.00)	17.11	3.36	11.33	
Sch-F (n=24)		(6.00 - 25.00)	15.87	3.72	13.85	
Sch-G (n=35)		(11.00 - 26.00)	20.14	4.36	19.06	

n.s. = non-significant
*** p<.001

TABLE A-5

DISTRIBUTION OF CONTINUOUS PROGRESS RATINGS ON
CREATIVE ARTS
BY GRADE, SCHOOL AND GENDER

CREATIVE ARTS	MAX. POSSIBLE OVERALL RATING	RANGE OF RATINGS (MIN - MAX)	MEAN RATING	STD DEV	VARIANCE	F
TOTAL (N=190)	8.00	(3.00 - 8.00)	7.50	1.07	1.16	
GRADE						n.s.
Kindergarten (n=89)		(4.00 - 6.00)	7.43	1.02	1.04	.549
Grade 1 (n=101)		(3.00 - 8.00)	7.55	1.12	1.27	
SCHOOL						***
Sch-A (n=19)		(4.00 - 8.00)	7.73	.933	.871	8.58
Sch-B (n=32)		(5.00 - 8.00)	7.31	.859	.738	
Sch-C (n=22)		(7.00 - 8.00)	7.95	.213	.045	
Sch-D (n=31)		(8.00 - 8.00)	8.00	0.0	0.0	
Sch-E (n=27)		(4.00 - 8.00)	6.88	1.25	1.56	
Sch-F (n=24)		(3.00 - 8.00)	6.62	1.88	3.54	
Sch-G (n=35)		(5.00 - 8.00)	7.88	.520	.281	
GENDER						n.s.
Male (n=89)		(3.00 - 8.00)	7.40	1.13	1.28	.077
Female (n=101)		(4.00 - 8.00)	7.58	1.02	1.04	

n.s.= non-significant
*** p<.001

TABLE A-6

DISTRIBUTION OF CONTINUOUS PROGRESS RATINGS ON PHYSICAL DEVELOPMENT BY GRADE, SCHOOL AND GENDER

PHYSICAL DEVELOPMENT	MAX. POSSIBLE OVERALL RATING	RANGE OF RATINGS (MIN - MAX)	MEAN RATING	STD DEV	VARIANCE	F
TOTAL (N=190)	6.00	(3.00 - 6.00)	5.60	.743	.553	
GRADE						n.s.
Kindergarten (n=89)		(3.00 - 6.00)	5.67	.735	.540	.036
Grade 1 (n=101)		(3.00 - 6.00)	5.65	.754	.569	
SCHOOL						n.s.
Sch-A (n=19)		(3.00 - 6.00)	5.36	.830	.690	.004
Sch-B (n=32)		(3.00 - 6.00)	5.40	.910	.830	
Sch-C (n=22)		(6.00 - 6.00)	6.00	0.0	0.0	
Sch-D (n=31)		(4.00 - 6.00)	5.90	.392	.157	
Sch-E (n=27)		(4.00 - 6.00)	5.66	.733	.538	
Sch-F (n=24)		(3.00 - 6.00)	5.41	1.01	1.03	
Sch-G (n=35)		(3.00 - 6.00)	5.80	.632	.400	
GENDER						n.s.
Male (n=89)		(3.00 - 6.00)	5.56	.838	.704	.077
Female (n=101)		(3.00 - 6.00)	5.75	.638	.408	

n.s. = non-significant

TABLE A-7

DISTRIBUTION OF CPR RATINGS ON MATHEMATICS AND SCIENCE BY GRADE, SCHOOL AND GENDER

MATHEMATICS AND SCIENCE	MAX. POSSIBLE OVERALL RATING	RANGE OF RATINGS (MIN - MAX)	MEAN RATING	STD DEV	VARIANCE	F
TOTAL (N=190)	33.00	(5.00 - 32.00)	22.4	5.06	25.67	
GRADE						**
Kindergarten (n=89)		(6.00 - 32.00)	21.47	5.75	33.18	6.16
Grade 1 (n=101)		(5.00 - 30.00)	23.27	4.22	17.82	
SCHOOL						***
Sch-A (n=19)		(17.00 - 29.00)	23.31	3.97	15.78	12.26
Sch-B (n=32)		(6.00 - 29.00)	21.65	6.05	36.68	
Sch-C (n=22)		(18.00 - 28.00)	23.68	3.07	9.46	
Sch-D (n=31)		(20.00 - 32.00)	27.16	2.69	7.27	
Sch-E (n=27)		(9.00 - 25.00)	17.70	4.79	22.98	
Sch-F (n=24)		(5.00 - 29.00)	21.62	5.58	31.20	
Sch-G (n=35)		(11.00 - 30.00)	21.88	3.00	9.04	
GENDER						n.s.
Male (n=89)		(5.00 - 32.00)	23.13	5.11	26.20	3.26
Female (n=101)		(8.00 - 30.00)	21.81	4.96	24.63	

n.s. = non-significant
** p<.01
*** p<.001

APPENDIX - B

** SY 1991-91 STUDENT PROGRESS REPORT

** SY 1992-93 CONTINUOUS PROGRESS REPORT

** SY 1993-94 CONTINUOUS PROGRESS REPORT

** SY 1994-95 CONTINUOUS PROGRESS REPORT

Early Childhood Units and Demonstration Centers

District of Columbia Public Schools

Student Progress Report

School Year 1991 - 1992

Early Childhood Span: Ages 3 - 8

School: _____

Student's Name: _____ Age: _____

Teacher's Signature: _____ Date: _____

First Semester January 1992

ent's Name:

ENDANCE RECORD

	JAN
Times Absent	
Times Absent Excused	
Times Tardy	

KEY
O = Observed Frequently: Does consistently on a regular basis
S = Observed Sometimes: Shows steady progress
E = Emerging: Requires ongoing support and guidance
N = Not expected at this time

CREATIVE ARTS/PHYSICAL DEVELOPMENT

	JAN
Uses imagination in dramatic play and in projects	
Demonstrates rhythm in music and movement activities	
Shows agility in the use of large motor skills	
Expresses own ideas in art activities	
Experiments with form, lines, movement and spatial relationships	
Demonstrates visual motor coordination	
Demonstrates increased ability with various art tools and mediums	
Shows ability to apply art skills in other subject areas	
Creates a project using own plan and design	

Comments:

MATHEMATICS/SCIENCE

	JAN
Explores materials and environment with curiosity	
Makes and describes observations	
Identifies, extends, and creates patterns	
Solves problems using patterns	
Sorts objects by properties (color, shape, size, texture, etc.)	
Compares and orders quantities/number	
Correspondence counts to 5 ☐ to 10 ☐ greater than 20 ☐	
Demonstrates a concept of each number to 10	
Estimates and measures objects	
Creates and solves problems involving measurement	
Understands place value	
Understands concepts of addition and subtraction	
Creates addition and subtraction problems	
Performs simple money transactions	
Collects data, describes, and records results	
Interprets graphs	
Predicts and discusses outcomes of simple experiments	
Shows curiosity in pursuing scientific inquiry	
Creates and interprets concrete, pictorial, and symbolic graphs	
Represents scientific conclusions in a variety of ways	

Comments:

SY 1991-92

Student's Name:

ATTENDANCE RECORD JAN

Times Absent _____
Times Absent Excused _____
Times Tardy _____

KEY
O = Observed Frequently: Does consistently on a regular basis
S = Observed Sometimes: Shows steady progress
E = Emerging: Requires ongoing support and guidance
N = Not expected at this time

CREATIVE ARTS/PHYSICAL DEVELOPMENT

	JAN
Uses imagination in dramatic play and in projects	
Demonstrates rhythm in music and movement activities	
Shows agility in the use of large motor skills	
Expresses own ideas in art activities	
Experiments with form, lines, movement and spatial relationships	
Demonstrates visual motor coordination	
Demonstrates increased ability with various art tools and mediums	
Shows ability to apply art skills in other subject areas	
Creates a project using own plan and design	

Comments:

64

EMERGING READING BEHAVIOR

Literacy means being able to integrate the processes of listening, speaking, reading, and writing in order to read and write. Each child puts this process together in different ways and at different rates.

Emergent Readers:

- Recreate story meaning from memory
- Experiment with reading (pretend reading)
- Show high interest in stories read aloud
- Make connections to own life experiences

Early Readers:

- Begin to sound out words
- Read word by word and pausing at unfamiliar words
- Recognize some words immediately
- Show enthusiasm in ability to read
- Use a variety of strategies to gain meaning

Fluent Readers:

- Read with expression and fluency
- Read many new and more difficult materials
- Comprehend what is read

SY 1991-92

EARLY CHILDHOOD UNITS AND DEMONSTRATION CENTERS

District Of Columbia Public Schools SY 1992-93

EARLY LEARNING YEARS: Pre-K–3rd Grade

CONTINUOUS PROGRESS REPORT

School Year 1992-1993

NAME _____ AGE _____ REPORT DATE _____

SCHOOL _____ Days Present _____ Days Absent _____ Days Absent Excused _____ Days Tardy _____

CODES: E - ESTABLISHED AND FREQUENTLY OBSERVED: Does consistently on a regular basis
S - SOMETIMES OBSERVED: Emerging, requires support
N - NOT YET EXPECTED

Personal and Social Development			
Shows empathy and caring for others			
Displays self-confidence			
Is willing to take risks			
Finds humor in situations			
Demonstrates self-control			
Plans work and makes choices			
Shows willingness to try something new			
Works independently			
Shares and takes turns			
Deals with problem situations constructively			
Persists with a task until completed			
Represents work carefully			

Reading/Writing/Language Arts			
Contributes to discussions			
Asks and answers questions clearly			
Listens to and makes appropriate comments			
Recognizes words used frequently			
Selects appropriate books to read or browse			
Reads for meaning			
Writes for meaning			
Shows flexible and logical thinking			
Understands and uses words appropriately			
Uses techniques of editing			
Writes: ☐ Emergent writer ☐ Early writer ☐ Fluent writer			
Reads: ☐ Emergent reader ☐ Early reader ☐ Fluent reader			

Physical Development			
Moves with increasing balance and control			
Shows increasing eye-hand coordination			
Uses writing and drawing tools with increasing control			

Creative Arts			
Experiments with new materials and activities			
Shows interest in music, movement, arts, drama			
Uses imagination in drama, arts, and projects			
Plans, designs, and completes creative projects			

Mathematics and Science			
Pursues scientific inquiry			
Makes and describes observations			
Predicts/discusses outcomes of experiments			
Represents scientific conclusions in variety of ways			
Explores materials and problems with curiosity			
Identifies, extends, and creates patterns			
Sorts, classifies and compares objects			
Makes appropriate estimates			
Computes mentally			
Creates/interprets graphs: ☐ concrete ☐ pictorial ☐ symbolic			
Describes and classifies geometric solids and shapes			
Measures in ☐ non-standard ☐ standard units			
Understands concepts of operations: ☐ addition ☐ subtraction ☐ multiplication ☐ division			
Compares and orders quantities/numbers			
Understands place value to ☐ two digits ☐ three digits			

STUDENT'S COMMENTS: _____

TEACHER'S COMMENTS: _____

66

Teacher's Signature

Parent's Signature

CONTINUOUS PROGRESS SCHOOLS

District Of Columbia Public Schools

EARLY LEARNING YEARS: Pre-K—3rd Grade

CONTINUOUS PROGRESS REPORT

School Year 1993-1994

NAME _____ AGE _____ REPORT DATES ☐☐

SCHOOL _____ Days Present ☐☐ Days Absent ☐☐ Days Absent Excused ☐☐ Days Tardy ☐☐

CODES: E - ESTABLISHED AND FREQUENTLY OBSERVED: Does consistently on a regular basis
S - SOMETIMES OBSERVED: Emerging, requires support
N - NOT OBSERVED YET: Does not demonstrate behavior

Personal and Social Development	JAN.	JUNE
Shows empathy and caring for others		
Shows positive sense of self		
Acts with increasing independence		
Is willing to take risks		
Finds humor in situations		
Respects materials		
Manages transitions		
Shows willingness to try new experiences		
Deals with problem situations constructively		
Plans work and makes choices		
Persists with a task until completed		
Works cooperatively in groups		
Represents work carefully		

Language and Literacy

Listens to and makes appropriate comments		
Asks and answers questions clearly		
Makes connections between spoken and written language		
Chooses to read/write independently		
Retells what is read		
Relates text to personal knowledge		
Predicts, interprets and forms opinion from text		
Uses cuing systems to gain meaning ☐☐ pictures ☐☐ phonics ☐☐ context ☐☐ punctuation ☐☐ grammar		
Writing conveys meaning		
Uses techniques of editing		
Spelling: ☐☐ Scribbling ☐☐ Some Sounds ☐☐ Invented ☐☐ Conventional		
As a Speaker: ☐☐ Emergent ☐☐ Early ☐☐ Fluent		
As a Writer: ☐☐ Emergent ☐☐ Early ☐☐ Fluent		
As a Reader: ☐☐ Emergent ☐☐ Early ☐☐ Fluent		

Physical Development	JAN.	JUNE
Moves with increasing balance and control		
Shows increasing eye-hand coordination		
Uses writing and drawing tools with increasing control		

Creative Arts

Plans, designs, and completes creative projects		
Shows interest in music, movement, arts, drama		
Uses imagination in drama, arts, and projects		

Mathematics and Science

Explores materials and problems with curiosity		
Makes and describes observations		
Questions, predicts, and discusses		
Represents scientific conclusions in variety of ways		
Identifies, extends, and creates patterns		
Sorts, classifies and compares objects		
Shows understanding of number and quantity		
Describes and classifies geometric solids and shapes		
Compares and orders quantities/numbers		
Makes appropriate estimates		
Creates/interprets graphs: ☐☐ concrete ☐☐ pictorial ☐☐ symbolic		
Measures in ☐☐ non-standard ☐☐ standard units		
Understands concepts of operations: ☐☐ addition ☐☐ subtraction ☐☐ multiplication ☐☐ division		
Understands place value to ☐☐ two digits ☐☐ three digits		

WHITE: TEACHER COPY
YELLOW: PARENT FIRST SEMESTER COPY
PINK: PARENT SECOND SEMESTER COPY

SY 1994-95

District of Columbia Public Schools

Continuous Progress Report: Pre-kindergarten - Third Grade

School Year 1994 - 1995

NAME _____ DATE OF BIRTH _____

SCHOOL _____ STUDENT ID NUMBER _____ Days Present ☐☐ Days Absent ☐☐

Days Absent Excused ☐☐ Days Tardy ☐☐

CODES: P - PROFICIENT: behavior consistently observed
I - IN PROCESS: behavior intermittently observed. requires support
N - NOT OBSERVED: behavior not evident
X - NOT EXPECTED: behavior not developmentally appropriate

Personal and Social Development	JAN.	JUNE
Shows positive sense of self		
Acts with independence in thinking and action		
Shows willingness to try new experiences		
Uses materials purposefully and respectfully		
Follows classroom rules and routines		
Sustains interest and completes tasks and projects		
Expresses and manages feelings and stress effectively		
Engages in caring and positive relationships with peers		
Engages in caring and positive relationships with adults		
Works cooperatively in groups		
Shows awareness of strengths and needed growth		

Language and Literacy		
Listens to and makes appropriate comments		
Asks and answers questions		
Uses language to construct and convey meaning		
Speaks easily and clearly		
Predicts, interprets and forms opinion from text		
Uses strategies to gain meaning: ☐☐ pictures ☐☐ context ☐☐ punctuation ☐☐ grammar ☐☐ phonics		
As a Speaker: ☐☐ Emergent ☐☐ Early ☐☐ Fluent		
As a Reader: ☐☐ Emergent ☐☐ Early ☐☐ Fluent		
As a Writer: ☐☐ Emergent ☐☐ Early ☐☐ Fluent		
Check (✔) if applicable: Learner of English as a Second Language		

Mathematics and Science		
Explores materials and problems with curiosity		
Uses problem solving strategies to investigate mathematical and scientific content		
Collects, organizes and analyzes data		
Describes, extends and creates patterns		
Makes and describes observations		
Classifies and compares		

Mathematics and Science (continued)	JAN.	JUNE
Describes geometric shapes and spatial relations		
Shows understanding of number and quantity		
Measures in ☐☐ non-standard units ☐☐ standard units		
Questions, predicts and estimates		
Indicates understanding of operations: ☐☐ addition ☐☐ multiplication ☐☐ subtraction ☐☐ division		
Represents and communicates mathematical and scientific thinking in a variety of ways		

Social Studies		
Understands and respects similarities and differences among people		
Recognizes human interdependence in: family structures and roles		
community life and work roles		
technology and how it affects people's lives		
Demonstrates knowledge of time and history and the relationship to people's lives		
Understands geographic concepts and mapping		

The Arts		
Plans, designs and completes creative projects		
Demonstrates special interest in: ☐☐ music ☐☐ art ☐☐ drama ☐☐ creative movement and dance		
Shows interest in artistic work of others		

Physical Development		
Moves with increasing balance and control		
Shows increasing eye-hand coordination		
Uses writing and drawing tools with increasing control		
Performs physical activities with agility		

WHITE: TEACHER COPY
PINK: PARENT FIRST SEMESTER COPY
YELLOW: PARENT SECOND SEMESTER COPY

APPENDIX - C

** **GLOSSARY OF TERMS**

** **ADDENDUM**
(Recent Program Modifications
Impacting on the CPR)

GLOSSARY OF TERMS

CHILD-INITIATED LEARNING - activities that facilitate learning by allowing children to direct the focus of their learning

CONSTRUCT - a complex image or idea formed from a number of simpler elements (ex., "social development" is a construct on the Continuous Progress Report)

CONTINUOUS PROGRESS MODEL - an educational approach that permits children to remain with their classroom peers in an age cohort regardless of whether they have met or surpasses pre-specified grade-level achievement expectations; strong emphasis is placed on individualizing the curriculum so that teaching and learning tasks are responsive to the previous experiences and rates of progress of each child regardless of age

CORRELATION - the degree to which two or more attributes or measures are related or show a tendency to vary together

CPR - Continuous Progress Report; a summary report or checklist which provides parents and teachers with an overview of children's developmental progression

DEVELOPMENTAL SKILLS - physical and mental abilities that are developed through the natural progression of age

DISCRIMINANT ANALYSES - statistical procedures used to differentiate groups from one another on the basis of sets or measures

IEP - Individualized Education Plans; a curriculum and instructional plan developed according to a child's individual skills and prescribed needs

ITEM COHESION - the extent to which individual items on a scale or measure are correlated with each other

ITEM CONSTRUCTION - the design and inclusion of elements on a scale or measure

MULTIPLE REGRESSION ANALYSES - statistical procedures used to analyze the contributions of two or more independent variables to one dependent variable

QUALITATIVE RATINGS - the acknowledgement of events or observations by using descriptors of qualities or traits (ex., "sometimes observed" or "frequently observed" are qualitative ratings)

QUANTITATIVE RATINGS - the assignment of numerical weights to designate the level of a quality or trait

RELIABILITY (general) - the dependability, stability or consistency of a scale or measure

Internal Reliability - the internal consistency or extent to which items are homogeneous

Inter-Rater Reliability - the consistency between the measurements or ratings of different individuals (raters) on the same item or construct

UNIVERSE OF SKILLS - the domain or range of skills appropriate for specific developmental levels

VALIDATION STUDY - a set of analyses or procedures conducted to determine the appropriateness of scales or measures

VALIDITY - the appropriateness of an index or measure for assessing the intended properties; the extent to which the intended measurements actually occur

Concurrent Validity - the extent to which separate measures of the same construct, measured at the same point-in-time, are correlated

Construct Validity - the extent to which a factor or scale construct encompasses elements which represent the properties intended

Content Validity - the extent to which the elements of a scale or measure represent the universe of relevant elements

Criterion-Related (Predictive) Validity - the extent to which a scale or measure (criterion) is correlated to another scale or measurement (predictor) taken at a different point-in-time and can be predicted by the outcome of the other measure

Discriminant Validity - the extent to which a scale or measure differentiates between group members based on identified characteristics

External Validity (general) - the extent to which a scale or measure is correlated with other similar measures

Internal Validity (general) - the degree to which a scale or measure accurately reflects the intended properties, and the extent to which the elements of the scale are related to each other

WSS - Work Sampling System; a developmental checklist designed to help classroom teachers keep track of children's work within a broad developmental perspective; the attributes of the Continuous Progress Report (CPR) were designed using the WSS.

ADDENDUM

Recent Program Modifications Impacting on the Continuous Progress Report

During the past school years (SY 1993-94 and 1994-95), the Early Learning Years Branch of the D.C. Public Schools (DCPS) has continued to refine the continuous progress/non-retention model as well as the Continuous Progress Report (see Appendix-B). Through the continued use of available research information and on-going, internal, monitoring procedures, recent versions of the Continuous Progress Report (CPR) reflect modifications which squarely accommodate the recommendations of the present evaluation. DCPS administrators for the Early Learning Years Branch have also begun to implement program activities to strengthen the utility of the CPR in areas also recommended in this evaluation.

CPR Content

With regard to the content of the CPR, the area of "physical development" has been expanded to include one additional item to strengthen the measurement of gross motor skills. This addition will potentially result into separate, more stable, constructs measuring both gross and fine motor skills. The addition of this single item is also likely to help account for a greater share of the variance in children's skill ratings on physical development. The Work Sampling System (WSS) component for "social and cultural understanding" has also been used more exhaustively in the revision of the "personal and social development" area of the CPR as well as in the addition of the new "social studies" component of the CPR.

The identification or designation of the assigned grade/placement level has also been addressed on the most recent version of the CPR, whereby students' placement levels will be recorded by teachers on the CPR at the beginning of each school year. It is noted, however, that careful consideration was given to the designated location of grade level on the CPR (i.e., obscurely at the bottom of the CPR form), with the intent of providing the grade level for administrative purposes only. This relative obscurity clearly reflects the idealogy of the continuous progress approach where students proceed at their own pace, and instructional strategies are not prescribed according to traditional levels of grade.

Resource Development

The DCPS Early Learning Years Branch has also formed "collegial consulting teams" (i.e., consulting teachers) which will directly address the recommendation of this evaluation for further teacher training in better teacher/parent communication. The collegial teams will be particularly important for new teachers in developing their skills to articulate the CPR scale and program practices to parents. The consulting teachers will also serve as a resource to both teachers and school administrators during the transition period from their traditional program to the continuous progress model.

In addition, resource documents for classroom teachers, particularly the CPR guidelines, have been expanded to provide greater clarity on the purpose of students' comments and the most effective ways to elicit accurate information and self-perceptions from young students. The resource documents have been further expanded, using the Work Sampling System, to include more extensive guidelines pertaining to benchmarks and expectations for skill development in students.

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement (OERI)
Educational Resources Information Center (ERIC)

ERIC®

NOTICE

REPRODUCTION BASIS

☒ This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

☐ This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").