EDUCATIONAL INTERVENTION AND ITS RELATIONSHIP TO ACHIEVEMENT AND SELF-CONCEPT OF PRIMARY STUDENTS IN THE RICHMOND PUBLIC SCHOOLS

by

Ronald L. Carey

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APPROVED:

L. McCluskey, Chairman	W. Bost
W. Ogby	R. Salmon
L. Weber	W. W. Worner

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(ABSTRACT)

The study was designed to investigate the intervention program, PEP-UP, in the Richmond Public Schools in Richmond, Virginia, and to determine if significant differences occurred in the academic achievement and self-concept of the program participants.

Data for the study were obtained from SRA Achievement Test scores of the subjects participating in the study and from questionnaires given the participants. The subjects were 15 classes of PEP-UP students who were retained in the second grade on the basis of test scores, and 15 classes of control students composing the lower level reading groups of the third grade. Permission was granted by the Superintendent of Schools to utilize the test scores from school records and to administer the questionnaires to the subjects. The data were analyzed by use of the analysis of covariance with the signicance level set at .05.

Major findings were: (1) There was a significant difference in the reading achievement after seven months of instruction between the experimental and control groups;

(2) the mathematics achievement scores were similar for both groups and no significant differences were found; (3) the Self-Esteem Inventory (SEI) did not indicate a significant difference between the groups, even though a slight increase in scores was evident for the PEP-UP students; (4) a significant difference in teachers' ratings did occur between the experimental and control groups.

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Chapter I

INTRODUCTION

The decade of the seventies was characterized by an increase in the interest and public support for competency-based education or CBE. This increased interest was indicative of the public's concern that students demonstrate competency in academic achievement prior to grade promotion. Previous educational reform during the sixties had created within citizens a request for school accountability for the tax dollar and questions of what a high school diploma meant if students were automatically promoted whether or not they merited it (Reilly, 1978). Public concern was heightened by declining test scores and the development by school boards of minimums which the public felt led to lowered educational standards. The Gallup Poll of Public Attitude Toward the Public School in 1976 indicated that 59% of those surveyed felt the decline in national test scores meant the quality of education was declining; 51% of the people contacted said more attention should be devoted to teaching basic skills, and 65% favored a nationwide standardized test for high school graduation (Gonder, 1978).

An often misused and misunderstood term, competency-based education has attracted many believers with varying viewpoints about education. Some view the movement as a

means of holding schools and teachers accountable. Other supporters feel that competency should be demonstrated in life skills such as filling out a check book in addition to the fundamental three Rs (Reilly, 1978). Competency-based education mandates that students prove their knowledge and skills at one level before they are allowed to continue their education at the next level. Competency testing, an important component of the competency-based education movement, provides teachers with vital information about the students' academic skills. These results can be used in preparing instructional materials to improve deficient academic skills.

The facts about competency-based education imply great improvement in accountability for the supporters of the movement. In addition, many educators equate competency-based education with improving how schools function. This latest approach, though developed around the issue of accountability, also opens the school doors to parents.

Supporters of competency-based education offer a rationale for parental involvement. Students are assessed on their progress during the school year in accordance with performance objectives. Reporting of the strengths, weaknesses and progress of the students to parents encourages parental participation. This information, discussed by the teacher with the parent, makes it easier for the parent to

participate in his child's learning. In addition, increased parent and teacher contact allows parents to know what teachers expect of students. Therefore, parents can set levels of academic expectations for their children. In essence, parents better understand the school because they are often included in the process of setting the standards (Reilly, 1978). Accountability of the schools to parents and other citizens has improved because of parental involvement in setting the goals and objectives of the program.

However, supporters of competency-based education are receiving criticism about the hazards and pitfalls of this movement. Critics argue that the needed tests are expensive to devise, score and revise. An education budget can be increased by one third to one half because additional teachers may be needed to fully implement a CBE program (Gonder, 1978). Critics also argue that this additional cost, plus extra expenses of remedial programs and possible lawsuits questioning the uses to which the tests are put, can be excessive in a period of fiscal austerity (Hall and Jones, 1976).

Many states have their competency standards stated in terms of minimum expectancies. Critics complain that the educational goals become narrow and the minimum standards will also become the maximum that is expected of students (Gonder, 1978). They also argue that when a competency

program has its goals stated in terms of minimums. Student creativity and motivation may be stifled.

There is one further point. Many critics argue that the majority of denied diplomas may create an additional burden for the disadvantaged student. In fact, it has been argued that the competency-based education movement discriminates against minorities (Reilly, 1978). As the standards are strengthened towards greater proficiency, segreagated classrooms possible will occu through the development of remediation programs. If this is true, the issue of student self-esttem arises. Many administrators believe that students who lack basic skills already suffer low esteem which can be raised only when their skills improve (Gonder, 1978). Therefore, the remediation classes should serve a two-fold purpose: improvement of basic skills and increased self-esteem. Further, it becomes necessary for the competency-based education programs to give consideration to the various cultures within the community when competency tests are devised, in order to avoid high rates of failure and school dropouts among minority students.

The pros and cons which are continually being expressed create a need for an in-depth study and understanding of competency-based education. Competency-based education

programs require a demonstration of mastery of predetermined skills considered fundamental in the students. These programs are normally comprised of objectives of learning and are measured by a proficiency test. As stated by Hall and Jones (1976):

> The goal of competency-based education is the development of learners who have learned of programs that promote learning, and of instructors who can and do teach -- the competency-based movement is more than a curriculum change and more than a change in instructional emphasis although the movement impinges on both. (p. 2)

At this time, according to Ross (1982), competency testing is now required or being considered in all but four states. Since these competency programs have been in existence for only a short period of time, many of the issues involving competency education are still in doubt.

The views about CBE, pro and con, have led many educational systems to restructure the grade progression of their students. Educators normally accept the premise that intervention will eliminate a learning problem or keep the problem from becoming more serious. Intervention in the public school setting has ranged from teaching effective classroom management strategies to teachers to evaluating an academic program. Practically speaking, once a group of

children has been identified as having learning problems, something is done to correct the problem.

In the Richmond Public Schools, a review of the performance of all students in grades K-2 during the 1976-77 school year indicated that significant numbers of students were experiencing difficulty in reading and mathematics. After analyzing the SRA test results, the school staff found that 32.5% of the second grade students performed at a grade equivalent of 1.3 or below in reading, and 35.5% performed at a grade equivalent of 1.7 or below in mathematics. Meanwhile, at the national level, mean scores for second grade students were 2.2 in reading. After consideration of this information, Richmond Public Schools decided to initiate an intervention program. The Primary Enrichment Program-Upper Primary, PEP-UP, was developed for students having deficiencies in the fundamental skills in the primary grades.

The staff and School Board developed the intervention program PEP-UP as an extension of Grade 2. It is designed for students who have not achieved according to specified objectives. The program is a self-contained organization. There are approximately 25 students per class. They receive their instruction from a PEP-UP teacher who has the assistance of an aide. Unlike some special programs, this aide is not shared with another class, but remains with

the PEP-UP teacher all day throughout the school year. The planning and shared responsibilities provide the students with constant adult contact and assistance.

The students are placed in the PEP-UP program based on the results of the SRA tests and the recommendations of a Review Committee. Those second grade students scoring below 1.8 on the SRA reading subtest in April are placed in the program. At the end of one year of intensified instruction in reading and mathematics, students exit the program with specific recommendations for placement. Normal placement for most students will be the third grade. However, rapid progress or high test scores may result in a student placement in the fourth grade (PEP-UP/Pre-Middle Handbook, 1979).

While all subject areas receive attention, instruction in PEP-UP revolves around reading and mathematics. A minimum of two and one half hours daily in the language arts area is recommended for the students. The skills concentrated on are reading readiness, word study, comprehension, oral language, study skills and composition. In addition, students receive one hour daily instruction in mathematics. Emphasis is on the development of numeration and the other skills needed to perform basic math operations.

The staff and School Board also believed that a

child's self-concept could be influenced by a program such as PEP-UP. A study conducted by Jones (1981) with older elementary students indicated changes in the student self-concept while involved in a similar program. Participation in successful activities, a tailored curriculum and consistent interaction with a skilled teacher could improve the child's self-concept. Therefore, in addition to the basic skills of reading and mathematics, PEP-UP also includes opportunities for the student to develop healthy affective behavior.

Since good diagnosis is parallel to the process of good teaching, several procedures are necessary in locating the specific and general learning and instructional difficulties. Among the formal procedures used, the SRA test is the primary measure of student outcome. This test provides standardized measurements of student academic achievement. Other procedures used are the Richmond Public Schools Mathematics Diagnostic Mastery Test, informal teacher-made tests, and observation of students. Such information allows the comparison of outcomes of the intervention program with the outcomes of other programs using a common frame of reference. The goal of the intervention program is to raise the level of academic performance and the self-esteem of students.

One may read through the statement of goals and objectives

of many current programs and find sufficient evidence of the concern for self-concept and achievement. Additionally, the beliefs about the students' abilities and the expectations of the teachers are paramount in improving achievement and self-concept. Schools have developed many intervention programs because of concern for student achievement and the concern expressed by parents and the general public.

This study shared the basic premise endorsed by Wilson (1979) about the early identification of children with learning problems. Wilson stated that "children at any age exhibit a great variety of strengths as well as deficits." (p. 2) Though tests may give us much information, we have less information on the appropriate action to be taken. By increased focusing on the child's strengths and weaknesses, a teacher may be able to eliminate a child's future learning problems.

According to Purkey (1970), there is a persistent and significant relationship between self-concept and academic achievement at each grade level, and that a change in one seems to be associated with a change in the other. For example, a positive self-concept is associated with academic success when a student is doing well. Likewise, a student experiencing academic failure has a negative self-concept which may be related to his failure. Therefore, the Richmond Public Schools, in developing the PEP-UP intervention

program, concentrated on students' self-concept as well as on achievement in reading and mathematics. In addition, an attempt was made to assess the impact of the program through the use of teacher ratings. The student self-concept rating scale (SSCRS) was employed in this effort.

It has been suggested that teachers' perceptions of students' academic ability and performance influence perception of other attributes (Hollond, 1959). Ratings by significant others therefore could influence self-concept. Many activities which create positive and negative feelings occur in the interaction between teacher and student. The student's self-concept may reflect perceptions about how he appears to others because he learns about himself from students' comments and perceived feelings from teachers.

Purpose of the Study

The purpose of this study was to examine PEP-UP, an educational intervention program of the Richmond Public Schools in Richmond, Virginia, and to determine if significant differences in academic achievement and self-concept occur among those students placed into the PEP-UP program compared with students not in an educational intervention program.

Significance of the Study

This study is significant for educational policy makers.

It studied an educational intervention program conceived in the era of CBE and designed for students with deficiencies in reading and mathematics. The importance of self-esteem and its relationship to school achievement was stressed in the development of the PEP-UP program.

Statement of the Hypotheses

Using the above discussion, the following hypotheses were developed for this research:

1. There is no significant difference between the reading achievement scores of the PEP-UP students and the reading scores of the closely equivalent group of students not enrolled in the educational intervention program.
2. There is no significant difference between the mathematics achievement scores of the PEP-UP students and the mathematics achievement scores of the closely equivalent group of students not enrolled in the educational intervention program.
3. There is no significant difference between the self-concept of the PEP-UP students and the self-concept of the closely equivalent group of students not enrolled in the educational intervention program.
4. There is no significant difference between the teachers' ratings of the PEP-UP students and the teachers' ratings of the closely equivalent group of

students not enrolled in the educational intervention program.

Limitations of the Study

Students selected for participation in the study were the fifteen classes of 1982-83 PEP-UP students who had scored a grade equivalent of 1.7 or below on the composite and/or reading subtest of the SRA test in April, 1982. The control group consisted of fifteen reading classes. These classes were located in the same schools as PEP-UP and were comprised of students having the lowest reading levels of all students promoted to the third grade.

The comparison of the two groups was indicated by the closeness of their SRA scores. The SRA test has a standard error of .10. This means that approximately 68% of the students would have true scores between 1.6 and 1.8 on a retest. The three-month range allows for the possibility that many of those students placed in the intervention program might have been promoted to the third grade. The comparison of the two groups (PEP-UP and lowest scoring third graders) therefore seems reasonable.

Definition of Terms

For this study terms are defined as follows:

Academic achievement. A measurement of a student's learning when compared to other students through the use of the SRA Achievement Test.

Competency-based education. A system for organizing and evaluating instruction with an emphasis on specified learning which mandates a demonstration of competencies through an examination.

Mathematics achievement. An assessment of a student's mathematics proficiency using the SRA Achievement Test.

Primary Enrichment Program-Upper Primary (PEP-UP). A continuation in the second grade for an additional year for the students who have not achieved according to specified objectives.

Reading achievement. An assessment of a student's reading proficiency as measured by the SRA Achievement Test.

Standards of quality. Virginia state law enacted by the General Assembly which mandates in part the measurement of individual students' progress in the areas of reading, communications and mathematics.

Self-concept. A person's total appraisal of his appearance, background and origins, abilities and resources, attitudes and feelings which culminate as a directing force in his behavior. In this study self-concept and self-esteem are used interchangeably.

Teacher rating. The classroom teachers' judgments of their students in the areas of peer group, teacher, classroom performance and social activities.

Organization of the Study

This study is divided into five chapters. Chapter I deals with a statement of the overall research problem, introduction and specific hypotheses for the study. A review of the related literature is presented in Chapter II. Chapter III describes the design of the study, the methodology including the population, research instruments, data collection and data analysis. Chapter IV presents the findings of the study and the interpretation in accordance with the stated hypotheses and methods of analysis used to test the hypotheses. The summary of the study, conclusions and recommendations for future studies are presented in Chapter V.

Chapter II

RELATED LITERATURE

The literature review provided in Chapter II will provide background for this study. The information provided reports on achievement, self-concept and teacher perceptions of students and their relevance to education and to the student.

Achievement

Achievement is a subject which has been studied for several decades. Much of this study has been created because achievement was, and continues to be, an important issue to many Americans. The concern by persons for achievement has been indicated by social status, academic degrees, personal recognition and awards. Education uses achievement to indicate success. Currently involved nationally in a competency movement, educators are stressing achievement as never before. The competency movement is part of a much broader re-emphasis on improving educational achievement in the basic skills.

Achievement defined in this study refers to the students' level of success at activities which all students are evaluated on when tested by the SRA Achievement Test.

Achievement and Teacher Behavior

Since the early 1970s, a great deal of educational research has been conducted that relates student achievement to teacher behavior. Brophy and Evertson (1976) found that teachers who believe that instructing students in the curriculum is basic to the teaching rule, expect their students to learn and act accordingly, and have students who tend to learn more. Those teachers are businesslike and task oriented in their approach to teaching.

Classrooms organized by teachers for increased student achievement showed evidence of planning, preparation and direct instructions. Research by Evertson and Anderson (1979) found that organizing classrooms to maximize student engagement in meaningful tasks is important if achievement is expected to improve. The meaningful task must be an appropriate activity which moves at a good pace and has a high level of success rate expected from the teacher.

The active instruction from the teacher was found to be very important. Specifically, students taught with individualized approaches and receiving the majority of their instruction directly from the teacher did much better than those expected to learn from one another. Zimmerman and Jaffe (1977) studied the effects of three degrees of structuring in a teacher's demonstration of open rule learning with six- and eight-year-old children. There were 36 stu-

dents, evenly divided between males and females, who attended a private school in a middle class neighborhood of New York City. After pretesting on a conceptual sorting task, the children were exposed to a modality sequence under high, medium and low degrees of structure. The results indicated that when teachers presented little structure in the teaching demonstration, the students did not learn as well as other students.

The student's achievement in school is multifaceted. Educators must provide the optimal environment for the students. The teacher, her expectations, planning, preparation, pacing and structure are major components of the school environment. The relationship the teacher has with a student may enhance or diminish a student's achievement.

Achievement and Sex

Besides the teacher behavior which affects student achievement, the personal variable of sex is another concern. From adolescence on, males give higher estimates for expected success on tasks that are not related to social skills than do females (Gold et al., 1980). In an examination of developmental changes in self perceptions of intelligence and self confidence among male and female third grade children and young adolescents, Gold found several changes. For third grade, perceptions of intelligence favored females, but by fifth grade, males were favored.

Those differences were maintained into eighth grade. The sex difference could not be explained by internalizing a sex stereotype.

Students also respond to pressure differently as a function of sex. Halperin (1977) found that boys responded positively to the male experimenter but negatively to the female experimenter. The pattern was reversed for females. This study used 128 subjects, 64 first grade and 64 fourth grade middle class children. Each child was studied under one of four conditions: (a) achievement emphasis-male experimenter; (b) achievement emphasis-female experimenter; (c) neutral emphasis-male experimenter; (d) neutral emphasis-female experimenter. The fourth grade students were more achievement oriented than were the first graders and were not influenced by the sex of the experimenter. It was also suggested in this study that primary teachers may be able to maximize students' achievement by treating boys differently than girls.

In a study to investigate the relationship between internal-external locus of control and academic achievement for boys and girls, 279 third graders were used (Hallis and Woods, 1975). Data were collected using the Intellectual Achievement Responsibilities (IAR) Questionnaire and the California Tests of Basic Skills. The tests were administered in September 1974 and readministered in May 1975.

The IAR yields one subscore for belief of internal responsibilities for success (1+) and one subscore for internal responsibility for future (1-). Findings indicated that by the end of grade three only the 1+ subscale was predictive of achievement performance for boys while both the 1+ and 1- subscales were equally predictive for girls

The failure of many children to achieve at acceptable levels in school has been regarded as epidemic. Landsberger (1978), in an epidemiological study of school achievement found that white females performed better at the end of the third grade and that black boys' achievement in all subject areas was lowest and their health the poorest of all groups considered. The improvement of the home environment and attention to later health differences may increase achievement.

Several researchers have attempted to explain the relationship between classroom noise and student intellectual performance. The higher mental processes demanded while engaged in meaningful tasks may also require less noise. A study using 156 public school children of the first, third and fifth grades in central Ohio was conducted by Christie and Glickman (1980). All children were from a traditional self-contained classroom. Half were assigned to a noisy condition while the other half worked on a task with minimal noise in the background. The noise manipula-

tion was found to interact with sex. Findings were that males tend to exhibit higher scores in a noisy environment while females tend to perform higher in a quiet environment. These effects were the same for each age group. Noise, therefore, in this study did not affect the performance of children in the same way.

Similarly, achievement in formal and informal settings provides interacting information as it relates to sex. In an effort to provide information for the type of setting appropriate for elementary students, O'Tuel and Terry (1979) investigated differences in achievement, test anxiety, general anxiety, and self-concept of elementary children in formal and informal settings. There were 326 fourth graders in the sample of which 149 were male and 177 were female. Students were assigned to the two settings according to the school they attended. Classrooms organized with learning centers, open space, student choice and low in structure were classified as informal. The formal setting was just the opposite, high structured self-contained classes, and low student choice. The tests administered were the California Mental Aptitude Test to measure IQ, the Comprehensive Test of Basic Skills for Achievement, the Test Anxiety Scale and the General Anxiety Scale to measure children's levels of anxiety and the Coopersmith Self-Esteem Inventory for self-concept.

The findings suggest that high ability students did better in formal settings and low ability students did better in the informal setting. The achievement of the low anxious student was better than that of the high anxious in both settings. Girls scored higher on anxiety scales than boys. The correlations were significant between general anxiety and achievement.

Research indicates differences between boys and girls when it relates to the subject areas of reading and mathematics. Townes et al. (1980) concluded in a study of neuropsychological correlates of academic success among elementary school children, that girls have a developmental advantage over boys in the early acquisition of abstract verbal reasoning and pattern matching skills. This statement suggests that boys are at a developmental disadvantage with respect to academic achievement during the early elementary years.

Further indications were that boys are in greater jeopardy of developing fear of retention, assignments to special programs and involvement with intervention programs. Boys, however, were superior on tests of spatial memory and motor skills. Sewald (1979), in an investigation of why boys' and girls' performance differs found that teaching behaviors affect the performance of the student. Specifically, teachers made more academic contact with girls in

reading and with boys in math, spent the same amount of time with boys and girls in both subjects, and while there were no differences in vital abilities, sex differences were found at the end of the year.

In a six-year study by Yarborough and Johnson (1980) boys and girls were found to be equal in the ability to acquire reading skills at the elementary level. These students, 52 seventh grade girls and 43 seventh grade boys, had been matched upon school entry on the variables of age, Hollingshead's socioeconomic classifications, Metropolitan Readiness Tests and IQ scores from the Kuhlman-Andersen Test. Girls appeared to have more positive attitudes toward school, reading and language arts and teachers. On the other hand, girls tended to view themselves as more dependent than boys.

In a more recent study by Miller and Bizzell (1983), children who were in prekindergarten programs were compared at sixth, seventh and eighth grades on IQ and school achievement. It is reported that males in the Montessori program scored higher in the areas of reading and math. Girls were performing slightly better than boys except in Montessori in other middle school programs. This difference for boys in the Montessori began at the end of grade two and was maintained.

Achievement and Ethnicity

Numerous researchers agree that achievement in our society, as measured by achievement tests, favors the white population. Guggenheim (1969) found differences of achievement between blacks and whites. He reported that "Negro pupils had significantly greater discrepancies between their actual achievement and their expectations for achievement." (p. 67) Analysis also indicated differences in achievement with whites outscoring blacks.

The Hodges study (1976) estimated heritability in different populations as it related to achievement. In this study, conducted in the Los Angeles School District, data were collected on three measures: the Cooperative Primary Reading Test, the Comprehensive Primary Reading Test of Basic Skills, and a composite set of intelligence tests. The results indicated that blacks were outscored consistently by whites on all tests.

Bridgeman and Burbach (1977) conducted a study which explained the effects of race of successful peer models on achievement. Fifth grade students from two grade schools in central Virginia were involved in the study. The total for the study consisted of 294 subjects with a combined group of males, females, blacks and whites. Students were shown video tapes of other students working on an academic task. One tape showed two black students being congratulated

by the teacher for having gotten the best score, while the other tape showed two white students being congratulated. The students, after viewing the tapes, were asked how many questions they could get right on the test. The test was then administered. The comparison indicated that black males who viewed the video tape of blacks succeeding expected to and actually did score higher than black males who observed white students succeeding. It is assumed that whites are affected less than blacks by the video tapes because they already believed that members of their race would succeed.

The effects of school racial and ethnic composition upon student achievement was studied by Thompson and Smidchens (1979). Eight hundred students in grade five were samples for this study. The California Achievement Test was administered at the third grade and again two years later. In areas of reading vocabulary, reading comprehension, language mechanics and mathematics computation, white students outscored black students.

Touliatos, Lindholm and Rich (1977) investigated the interactions of grade, sex, social class, family structure and teachers with race on achievement. Subjects were 334 blacks and 637 whites in grades three to six. Data consisted of background information and grade equivalent scores on the California Achievement Test. Results indicated that

blacks scored lower than whites and fell further behind as they progressed from grade to grade. Significant interactions were revealed for sex, social class, family structure and teachers.

Many researchers agree that the measurement of achievement favors whites. The research indicated mixed results of achievement between races. These mixed results were present in many studies due to many variables indicated by the researchers. Some of these variables were successful role models, family structure, social class and the structure of the teacher.

Achievement and Socio-Economic Status (SES)

Students' achievement may also be affected by their socio-economic status (SES). Some studies indicated that achievement can be predicted from SES when children are infants. Rubin and Balow (1979) investigated the relations between scores on measures of infant development and SES and later performance on measures of intelligence and school achievement administered at ages four through nine. Subjects were 1,382 white participants with normally distributed measures of IQ and SES. The measuring instruments used were the Bayley Tufout Scale of Mental Intelligence, Wechsler Intelligence Scale for Children, and the Socioeconomic Index. The results indicated the SES was a better predictor of later intelligence than the Bayley and that the Bayley is a more accurate predictor for low IQ subjects than for

normal IQ subjects. In addition, results indicated that for infants who were normal at birth, later IQ will be more closely associated with SES.

There have been a number of studies dealing with maternal childrearing and scholastic achievement. A study by Logan (1981) shows that different childrearing patterns are associated with high scholastic achievement in fifth and sixth grade children. This researcher used four different class culture groupings (black middle class, black working class, white middle class and white working class) to examine differential childrearing practices. The information was obtained from 1,102 mothers by means of survey interviews. Students' scholastic achievement was measured on achievement tests taken from school records. The conclusion is that the black working class childrearing strategy would consist of warmth and restrictiveness with the high achieving child. In addition, the white middle class would reflect childrearing practices of warmth and permissiveness associated with the child's school achievement.

Milne et al. (1981), using a nationally representative data base of students in grades one through six discovered that achievement scores are lower for children from one-parent than from two-parent homes. The researcher collected data in reading and math from a stratified sample of

242 public schools. A random sample of 15,579 students was studied through a home interview with the parents. Conclusions indicated that children from two-parent homes have lower achievement if the mother works. For black children from two-parent homes the direct effect is negative, but the total effect is offset by the source of family income. Black children from one-parent homes have higher achievement if the mother works. Maternal working in two-parent white families has a direct negative effect on children's achievement. It is suggested that since white mothers are more educated and therefore effective in acting as teachers of their children, the loss of their working time is detrimental to their children.

Saterfeil (1978) investigated the relationship between school accreditation variables, socio-economic status and student achievement. Using standardized reading and mathematics achievement test scores in 38 eighth grade and 74 fifth grade schools, it was discovered that the socio-economic status of students had a major impact on reading and mathematics achievement. The higher the socio-economic status of children, the higher their achievement.

Finally, Shakiba-Nejad and Yellin (1981) examined the socio-economic status, parent participation, teacher awareness, and academic achievement of 76 elementary school students. Results were obtained through interpretation of

data and a review of related literature. They found a positive correlation between SES and academic achievement. Additional findings attributed poor academic achievement to lower SES students with very poor attendance records and indicated that teachers' attitudes toward low SES students were not positive in regard to student achievements.

As is evident from this review, the research dealing with the relationship between achievement and SES is consistent in indicating a strong positive relationship. However, other variables were important in determining the achievement for students, and it appears that there is a good deal of interaction among these variables.

Achievement and Non-promotion

Non-promotion has been a topic of research interest since the early 1900s. Though the rate of non-promotion had declined over the last few decades, it has now begun to increase due to the current emphasis on competency-based education. Saunders (1941) stated:

> From the evidence cited it may be concluded that nonpromotion of pupils in elementary schools in order to assure mastery of subject matter does not often accomplish its objectives. Children do not appear to learn more by repeating a grade but experience less growth in subject matter achievement than they do when promoted. (p. 29)

Similarly, reaffirming Saunders' conclusion, Dobbs and Neville (1967) investigated the effects of non-promotion on achievement of once retained first graders as compared

with never retained second graders. They used 30 matched pairs of children on seven variables of race, sex, SES, classroom assignment, age, mental ability and reading achievement. The overall conclusion indicated that non-promotion was detrimental to achievement. This conclusion was substantiated by the following findings:

1. a significant difference in reading achievement between both groups, with the higher reading achievement level belonging to the promoted group;
2. the arithmetic gain being greater for the promoted group.

In addition, a study by Coffield and Blommers (1956) shows that retained and promoted subjects perform at about the same level when performance is measured in the same higher grade. This occurs regardless of the fact that retained pupils spent an additional year in the same grade. One hundred and ninety pupils were selected for this study using test results from the files of the Iowa school systems. The five measures were: Reading Comprehension, Work Study Skills, Language Skills, Arithmetic Skills and a composite based on the sum of the four scores. They state: "if the consideration is solely a matter of educational achievement, it does seem clear that little is gained by requiring the repetition of a grade." (p. 249)

Abidin, Golladay and Howerton (1971), using a group

of 85 children who were retained in either first or second grade and 43 children never retained, collected data from each child's school records during the first five grades. They discovered no evidence of positive or negative short term effects of retention. However, the long term effect suggests that those retained display a continuing deterioration in achievement through the sixth grade. Since those 43 students never retained had scored below the 25th percentile on the Metropolitan Readiness Tests, it is unclear what prompted the retention of the others.

Godfrey's study (1971) using 1,200 students in grades six and seven from 14 schools in North Carolina concluded that retaining the students did not help them catch up academically.

Holmes and Mathews (1983) conducted a meta analysis of the research findings of effects of non-promotion. Forty-four studies were used to measure effect sizes in grand means. The grand mean effect size was -.37 indicating that promoted children scored .37 standard deviations higher than retained children. In the area of academic achievement, the promoted groups achieved .44 standard deviation units higher than the retained group. This indicates that non-promotion had a negative effect on pupils' achievement.

Non-promotion has not been found to be universally

detrimental to children's achievement. In a study by Lobdell (1954), the effects of non-promotion were found to be less detrimental. He investigated the fraction of non-promoted pupils who were able to do satisfactory work during the year they repeated a grade. Ninety-four students who had been retained were the subjects of this study. It is concluded that careful selection of the children for retention can bring about success during and after the year of retention. It is suggested that specific criteria be developed and used for each student recommended for non-promotion. His figures suggest that as many as 69% of the total number of students retained in the study made good to fair progress.

Scott and Ames (1969) studied 27 elementary school children in Connecticut. Five were retained in kindergarten, 14 in the first grade, three in the second, three in the third, one in both grades five and six. The ages ranged from five to twelve. Only those repeating on a basis of immaturity were involved in this study. Immaturity had been determined on the basis of principal and teacher judgment. Grades from the year before repeating were compared with midyear grades during the repeat year. They found that students retained for immaturity had improved grades and had no social or emotional difficulties. Thus retention had a beneficial effect.

Sandoval (1981) in his study of retained first graders used factors of physical size, visual development, family background, early life experience, teacher philosophy, academic skills, social skills and emotional development to determine the factors that contribute to success during the retained year. He found that whether or not the child emerged successfully from the repeated year depended upon academic skills, emotional development and social skills. The non-promoted students were below those promoted in reading and mathematics. Thirty-eight percent of the retained students were successful. He concluded that non-promotion can be a positive experience for some children but those who repeat should be selected very carefully.

Kerzner (1982) investigated the educational value of retaining low achieving elementary school students in the same grade for one additional year. The subjects were 56 students who had completed at least one grade level beyond the grade they were retained in. The Comprehension Test of Basic Skills was used as a pretest/posttest comparison. The findings of the study indicate that retention was beneficial academically to students in all grades, but that retaining a child is best in grades one, two and three.

The findings of the effects of non-promotion on achievement have not been consistent. Research studies indicating a lack of academic achievement during the re-

tained year are not clear on negative influence. However, the percentage of students showing favorable gains in achievement are not consistent.

In summation, the review of related research on academic achievement is mixed as it relates to race, sex, SES, and non-promotion. Several explanations for this inconsistency present themselves. For example, many of the studies are in early childhood stages of a child's life. Most often children are making attempts to adjust to changes in their environments. These adjustments may include relationships with family and peers, as well as adaptation to a system which assigns grades to judge the students' achievement.

Self-Concept

The definition of self-concept varies according to various authors. In Coopersmith's discussion (1967), self-concept is defined as "a personal judgement of worthiness that is expressed in the attitudes the individual holds towards himself." (p. 5) He also suggested that self-concept was multifaceted with emphasis on many experiences and conditions of age and sex. The Coopersmith Self-Esteem Inventory (SEI) has been used as a measure of general self-concept. It included statements relative to school, family, peers, self, and general social activities in determining the appraisals of self.

Wylie's discussion (1961) of self-concept indicates "the terms are so intertwined and overlapping in the literature that the constructs must be discussed as a group." (p. 40) The indication of varying terms for self caused many educators and researchers to use the terms for "self" interchangeably. Wylie's definition of self-concept refers to the individual's perceptions and feelings towards himself.

According to Shavelson, Hubner and Stanton (1976), self-concept is a person's perception of himself. As others accept or reject the child or the child's actions, the child develops self-concept of social acceptability. If he is treated as a warm, considerate and valuable person, he will think of himself and act that way. Likewise, if he is treated as a worthless individual, he will think of himself and act accordingly.

LaBenne and Greene (1969) state, "self-concept is a person's attitudes, feelings and knowledge about his abilities, skills, appearance, competencies and social acceptability." (p. 10) The dimensions suggested here are body image, social and personal acceptability and self competence. In other words, the self-concept is a main factor in controlling human behavior. The choices made by an individual relate to his attitudes, feelings and knowledge from past experiences, as well as his present needs.

Purkey (1970), in his attempt to conceptualize the self, stated that the self is "a complex and dynamic system of beliefs which an individual holds true about himself and each belief has a corresponding value." (p. 10)

The word self-esteem is often used interchangeably with self-concept. Self-esteem has been described as a feeling of personal warmth, positive or negative attitude towards a particular object, and feelings-influenced abilities, appearance and judgment of others. Self-concept has been defined by Rogers (1947) as "the sum total of all the characteristics a person attributes to himself and the positive and negative values he attaches to these characteristics." (p. 54) Thus, "self-concept" and "self-esteem" appear to be synonyms. They will be used as such in this study.

To summarize, for this study self-concept is defined as a person's total appraisal of his appearance, background and origin, abilities and resources, attitudes and feelings which culminate as a directing force in his behavior. From the definition by LaBenne and Greene (1969) one can understand how multifaceted a self-concept may be.

Self-Concept and School

One experience for the child which contributes to his perception of self is the school. Many of a child's waking hours are spent developing and learning. What happens to a

child in school and how he perceives these occurrences are the sources for the development of self-concept. The atmosphere for learning as produced by the teachers and peers help shape the student's self-concept.

Educators would believe that everything they do relates positively to self-concept. This belief, however, is not supported by evidence. Some students' self-concept increases positively during the school years and for others the self-concept declines.

Bills (1978) found that the trend for many students is towards acquiring more negative self images as the number of school years increases. Morse (1964) supports the findings of negative self-concept as school years progress. In this study, 600 pupils in alternate grades of three through eleven were required to complete two tests while their self-concepts were being studied. These tests were the Osgood Semantic Differential, which required the child to respond to a given stimulus, and the Coopersmith Self-Esteem Inventory, which has four subscales of self, social, home and school. In both tests the third grade students responded differently from the other grades and in the direction of higher self regard.

Many of the items found on the Self Esteem Inventory showed a decrease with age. For the question, "I'm pretty sure of myself," 12% of the third graders responded "unlike

me," whereas 34% of the eleventh graders made that response. Forty-four of the eleventh graders wished they were someone else and as many as eight percent considered themselves failures.

In regard to school self-esteem, 84% of the third graders were proud of their school work, while only 53% of the eleventh graders felt the same way. Ninety-three percent of the third graders felt they were doing the best work they could and only 37% of the oldest students felt this way.

An additional study by Stenner and Katzennger (1976) contributed information on self-concept. In a study using students in grades one through three the researchers found that 50% of the first graders said they would rather play with younger children whereas only one out of three third graders expressed the same feeling. Twenty percent of first graders believed that other children in their class didn't like them, but by the third grade the percentage had risen to 30%.

Eighty percent of the first graders and only 67% of the third graders thought they were doing as well as they should in their work. While approximately 90% of the total sample reported their teachers liked them, fewer third graders than first graders felt this way.

Although much of the responsibility for student self-

concept may be with the school, the characteristics of the teacher are paramount in improving a negative self-concept. Wylie (1961) reported that self-concept is developed through a combination of rewards and punishments related to one's action and characteristics. Kulp (1978), in her study of the effects of inservice teacher seminars of enhancement of self-concept, found a relationship between student self-concept and success in school. Additional findings concluded that inservice for teachers which incorporated theory, process education and reading materials also assisted in the improvement of student self-concept.

In a similar context, Fox and Peck (1978) examined the personal characteristics of teachers that affect student learning. This study at the University of Texas used 53 sixth grade teachers and their classes from four schools. Data were gathered using two types of teacher measurements: observation of behavior and self reports. Likewise the pupils' measurement were self reports with the exception of an achievement test. A pretest-posttest design was used with the tests being given at the beginning of the school year and again in the spring.

Teachers who described themselves as introverted produced the best gain in pupil achievement. Those teachers rating themselves on charm, wit and sophistication had negative effects on pupil achievement and coping skill.

These same teachers were also rated low as stimulating, inventive teachers by experienced observers. High abrasiveness was found to be harmful to the self-esteem of students who started out only average or low in self-esteem.

Finally, two studies, one by Davidson and Long (1960) and one by Lewis(1964) discovered that student perceptions of their teachers' feelings toward them are highly correlated with self perceptions. It was also found that students who feel they are liked and respected by their teachers have higher self-respect, while those who believe they are disliked by their teachers are more dissatisfied with themselves. In general, strong support was found for a positive relationship between pupils' self-concepts and teacher characteristics.

Self-Concept and Sex

Etaugh and Harlow (1973) found that males generally receive more attention than females do from teachers, and when the teacher is female this can result in lower self-concept for females. In this study classroom behaviors of two male and two female teachers and 87 pupils were observed over a three-month period. Attitudes of the pupils toward teachers and school also were measured. Little evidence was found to support the claim that male teachers may facilitate the attitudes and behaviors of male pupils. Boys were also scolded more often than girls, but praised

more than girls. However, the increase in praising of boys was not given by male teachers.

Roth and Puri (1967) conducted a research study which attempted to test the relationship between underachievement and the direction of aggression postulated in the non-achievement syndrome. In the study students from grades three through twelve were administered the Rosenweiz Future Frustration Study in matched groups of achievers and under-achievers. Findings of that study suggested that positive relationships between academic achievement and self-concept were stronger in boys than in girls. The underachieving and the achieving students handle their hostility differently. The achievers expressed their aggression on the environment whereas the underachievers directed hostility inwards. These results were supported among all grades tested.

Kifer (1975) also investigated the relationship between achievement and personality. Coopersmith's Self-Esteem Inventory was used as one of the instruments to determine the impact of patterns of achievement on personality characteristics of students. Subjects were used from grades two, four, six and eight with the selection criteria being grades in academic courses. The results indicated that girls who were academically unsuccessful in school score lower on all variables of self-concept than to un-

successful boys. This study indicated that instructional strategies which provide a means for more students to have more success would be considered preferable to those which do not because of their potential impact on the personality characteristics of students.

Sears (1970) used sixth grade boys and girls in a follow-up study to test the relation of early socialization experiences to self-concepts and gender role in middle childhood. In the study Sears used five self-concept scales and a masculine-feminine instrument to obtain his results. Findings of that study indicated a significant relationship between self-concept and academic achievement for boys and girls, but the relationship appears stronger for boys. In addition, the boys' self-concept was more predictable than girls' and femininity was associated with poor self-concepts.

In a study with elementary school children, Campbell (1967) reported significant relationship between self-concept and achievement. Moreover, he reported finding that the relationship between self-concept and achievement is higher for boys than for girls. Using Coopersmith's Self-Esteem Inventory and the Iowa Composite Achievement, Campbell was able to recommend a change in curriculum programming in schools for boys to improve self-concept. Campbell stated, "It is plausible that efforts to improve

self-concept have a greater chance of affecting the achievement of boys than of girls." (p. 510)

Finally, findings reported by Bledsoe (1967) on the self-concepts of fourth and sixth grade boys and girls in relation to their intelligence, academic achievement, interests and manifest anxiety indicated that girls have greater self-esteem than boys. Using a random sample of 271 students from the Clarke County School in Georgia, Bledsoe also found consistently significant positive correlations of self-concept with intelligence and achievement for boys but not for girls.

In summary, it appears that the information reviewed on sex and self-concept as they relate to achievement is mixed. Several researchers report a higher self-concept in males than females. However, the opposite is also true. With these mixed results it is unclear if sex is related to self-concept.

Self-Concept and Ethnicity

The Educational Policies Commission stated in 1962:

> The disadvantaged are the main victims of practices that frustrate the development of self-respect . . . The resulting sense of inferiority and exclusion is most severe among Puerto Ricans and Mexican-Americans, whom other whites commonly regard as non-white. (In Zirkel (1971), p. 211)

Research on self-concept and black students indicated

mixed results. Several studies did find significant higher self-concept for white children than for black children. However, recent research indicates no significant difference between black and white students' self-concepts. Some studies even provide evidence that the self-concept of black children may surpass those of their white counterparts (Zirkel, 1971).

Gibby and Gabler (1967) conducted a study which investigated self-concept of intelligence in black and white children. This study used 56 black and 59 white sixth grade students from public schools in Atlantic City, New Jersey. The California Test of Mental Maturity, Elementary Short Form, and the Gibby Intelligence Rating Schedule were the measures used to collect the data. The reality-discrepancy score, the self-discrepancy score and the ideal discrepancy score were the three scores obtained and used to report the findings. Findings of that study suggested that similar groups of black and white children do differ significantly on self-concept as measured by self ratings on intelligence. In addition, the two groups of children differ on the measure of reality and self-discrepancy but not ideal discrepancy. Sex and IQ levels of the children caused the difference in the discrepancy measures obtained.

In a similar study by Guggenheim (1969), the self-

esteem of black and white children was researched. The sample was selected from an elementary school in Manhattan. The 56 students used for this study were divided into high and low self-esteem groups. There were 29 blacks and 27 whites. He reported that black pupils had significantly greater discrepancies between their actual achievement and their expectations for achievement. Further analysis indicated that whites outscored blacks with differences in achievement. However, Guggenheim was unable to account for achievement differences by using self-esteem differences. Guggenheim presents reasons for further study of other characteristics and conditions which may affect the self-esteem of blacks. He stated:

> The results indicate that the generally held assumption that Negro pupils have a low self-esteem may not be a valid one. Social and cultural conditions which militate against the fulfillment of this need probably do take their toll. (p. 70)

The above quote suggests that the black child does possess academic aspirations and that programs in schools may be developed which promote and maintain satisfactory levels of self-esteem.

One final study in this area deserves note. Using the Coopersmith Self-Esteem Inventory and the Williams-Burns Skin Color Matrix with 115 third grade advantaged blacks, Williams-Burns (1980) found the self-esteem low

among the subjects. However, the students used in the study were achieving above the third grade level. Of significance is that among the three types of schools used in the study--private, parochial and public--the highest self-esteem mean scores occurred among the public schools where classes were segregated and in parochial schools where more blacks were in attendance than whites. This finding should be read cautiously and with understanding. Further research of the effects of integration and segregation needs to be conducted to substantiate the findings for the above study.

Taylor (1968) completed an investigation in 1967 to ascertain self-concept adjustments in a newly desegregated school. Pupils undergoing the first year of desegregation were compared with students already enrolled or already in desegregated schools. Pupils were required to make symbolic responses on twelve measures of self-concept. The tests were repeated in the sixth grade, upon entrance into seventh grade and at the close of seventh grade.

An analysis of the findings indicated that black and white children showed significantly different self-concepts in the dimensions of centrality, dependency, individuation and power. Significant changes in self-concept, following an initial year of desegregation, were limited to the formation of atypical patterns of socialization. For overall

desegregation, blacks tended to decrease self-esteem following an initial rise, while whites tended to increase in self-concept measures following an initial decrement.

Zirkel and Moses (1971) completed a study which investigated the possible relationship of self-concept with ethnic group membership and mixture in the school setting. The subjects were 120 black, Puerto Rican and white students selected from the fifth and sixth grades of three schools in a large Connecticut city. Each school had a different ethnic group in majority. The Coopersmith Self-Esteem Inventory was used to measure the self-concept of students.

The results of the study indicated that the self-concept of the children was significantly affected by their ethnic group membership but not by the majority-minority mixture of the groups within the schools. Also, support was given to the indication that the self-concept of the black children did not differ significantly from and may be higher than that of white children. The self-concept of the Puerto Rican children was lower than that of black and white children.

Two additional studies provide information on the self-concept of black and white students. Hodgkins and Stakenas (1969), when researching the self-concepts of black and white youth in segregated environments, found that signifi-

cant differences between black and white subjects existed in self-adjustment and self-assurance in school situations with blacks scoring higher than whites. This finding suggests that blacks segregated in their environment have the same likelihood as whites to develop a favorable or unfavorable self-concept.

The second study by Trowbridge (1970) involved an examination of the effects of socio-economic class on self-concept of children. Sixty-four elementary classrooms in Iowa were used in the study. The classes were self-contained elementary, upper and lower grade levels, with the percentage of black students ranging from 15.6% to 80.3%. One aspect of the study focused on the inservice teacher education program which had been funded under Title III ESEA. Students completed the Coopersmith Self-Esteem Inventory toward the end of the school year. The results indicated that the mean self-concept of disadvantaged students consistently surpassed that of the non-disadvantaged students.

The two studies further confused the issue of self-concept as it relates to the black student. However, the relationship of self-concept and other ethnic groups is also worthy of study. For example, Anderson and Safar (1967), in a study involving ethnic rather than self-identification, found negative perceptions of self among

Anglo and Mexican-American "significant others" of Mexican-American descent. McDaniel (1967) found the mean self-concept of Mexican-American children to be significantly lower than that of white but not of black children. However, DeBlaisse and Healy found no significant differences between the self-concept of Mexican Americans and white children.

Among disadvantaged Puerto Rican children and adolescents, Drusine (1956) found that Puerto Rican subjects esteemed their own ethnic group below that of whites, but significantly above that of blacks. Coleman (1966), on the other hand, found the average self-concept of Puerto Rican students to be significantly lower than that of both black and white students.

Self-Concept and Socio-Economic Status (SES)

The student's self-concept may also be affected by his social or socio-economic status. High SES tends to be positively correlated with high self-concept. Sewell & Haller (1956) investigated the social status and the personality adjustment of the child. The subjects were all fourth through eighth grade students in both public and parochial schools in Wisconsin. Data gathered on each child consisted of scores on the California Test of Personality-Elementary, Form A, scores on the New California Test of Mental Maturity-Elementary, Form 47-S, and information from a family

background questionnaire.

The findings indicated a significant relationship between the social status of the child's family and his personality adjustment. Those students with higher SES showed a better adjustment than those with lower SES. Some researchers have indicated the opposite findings, i.e., low SES students may have more positive self-concepts than high SES students.

The review of the literature with respect to SES and students' self-concept revealed mixed findings. Earlier studies suggest low SES students have a less positive concept while recent research indicates that lower SES students may have a higher self-concept than their middle class counterparts.

Self-Concept and Non-promotion

The practice of non-promotion of the academically lagging student has an extended history of debate in education. The frequent use of methods that result in daily failure and defeat have a tremendous impact upon the self-concept of the school child (Glasser, 1969). When a student respects the opinions of "significant others," parents, teachers and peers as important, failure may become a horror. With failure, attention is called to the inadequacies of the student. Several studies theorized that non-promotion would have grave effects on the child.

One significant study on non-promotion was reported by White and Howard (1973). Over 600 boys and girls in the sixth grade from six school systems in North Carolina participated in this study. The data were compiled from students' permanent records and the Tennessee Self-Concept Scale. Twelve percent of the subjects had failed to be promoted once; 43 were boys and 30 were girls. Four percent had failed to be promoted two or more times.

The results indicate that failure to be promoted is related to the self-concept of elementary school students. Two failures to be promoted tended to result in a more negative self-concept than one. The results of these studies were similar to findings of earlier studies on non-promotion.

Though these investigations proved to be significant in relationship to self-concept and non-promotion, other studies were not significant. Finlayson (1977) completed a longitudinal study on the effect of non-promotion upon self-concept of pupils in primary grades. Five hundred eighty-five first grade pupils never retained were followed for two school years, 1973-74 and 1974-75, in Philadelphia. During the 1974-75 school year three groups of 25 each were followed closely. Those groups were (1) promoted to second grade, (2) borderline passing with similar characteristics as non-promoted but in the second grade, and (3) non-

promoted: those remaining in grade one. The FACES Scale, containing 18 questions about feelings toward family, friends and self, was administered four times. The administrations were in October, 1973, May, 1974, October, 1974 and May, 1975. It was predicted that non-promotion students' self-concept would become significantly more negative than those promoted or borderline students.

In fact, the non-promoted students' score on self-concept measure increased while borderline and promoted scores dropped slightly during the second year. In May, 1975, on the fourth administration, the self-concept scores of the non-promoted and promoted groups were identical. The conclusion that non-promotion at the first grade did not negatively affect the self-concept of the primary pupils was directly opposed to the results of earlier studies.

In summary, research indicated that student self-concept becomes negative through years of schooling. Considerable evidence indicated a direct relationship between achievement and self-concept and of teachers' feelings towards students and self-concept. It is unclear how the sex, ethnicity, or socio-economic status influences the students' self-concept. Non-promotion also provides a mixed conclusion with its relationship to self-concept. The combined studies indicate that self-concept is related to several variables which may influence student growth and

achievement.

Teacher Ratings

A teacher's perceptions, opinions and impressions of children probably have important effects on children's lives during the school years. Some elementary teachers are in contact with their children for a prolonged period of time, and they should be well situated to make accurate observations of children's behavior in school settings.

Shrauger and Schoenemon (1979), in reviewing 50 studies that compared studies on self-perception with descriptions by others, stated:

> Studies on naturalistic interaction indicate that pupils' self perceptions agree substantially with the way they perceive themselves as being viewed by others. (p. 549)

In order to express this point it is well to examine the research on teacher ratings.

McCluskey (1975) investigated the interrelationships of student attitude and student performance. Teachers were asked to judge their students in both academic and non-academic areas. He reported a high intercorrelation of teacher ratings of non-academic performance. Those non-academic areas were Social Maturity, General Adjustment, Interest and Work Habits. He states, "the indication is that teachers had some global notion of those qualities that

make up a 'good' student, and rated 'good' students highly on all four non-academic performances scales . . ." (p. 52)

Solomon and Kendall (1977) developed a rating scale which included 30 items referring to aspects of children's classroom behavior. Teachers rated behavior on the 30-item scale for 205 third and fourth grade children in four schools in Montgomery County, Maryland. Factor analysis of the scale produced four factors which were called: democratic, cooperative behavior; autonomous intellectual orientation; responsible perseverant striving behavior; and involvement in class activities. Patterns of the correlations with two achievement related factors suggested that teachers can validly discriminate between two intellectual approaches to achievement: the perseverant and the autonomous. They concluded that " . . . teachers' perceptions of their students form clear and coherent dimensions, at least some of which appear to be relatively consistent." (p. 420)

In addition to the research about teachers' ability to rate students, there have been several studies investigating teacher rating and standardized test results. One of these studies is reported by Pedulla, Airasion and Madaus (1980) and involves the investigation of the relationship of teacher ratings to standardized tests. One hundred and seventy teachers in Ireland rated 2,617 students on IQ,

mathematics, English and 12 social and academic classroom behaviors. Factor analysis showed an overlap between ratings and test results. Teacher judgments of IQ, English and mathematics performance are confounded with their judgments of attention span and persistence. Standardized tests relate most strongly with teacher rating in the areas of IQ, English and mathematics. Implicit in this research is that teachers' judgments of students are similar to those made by standardized tests, but are confounded by academic related behaviors of attention span and persistence.

Another study by Stevenson et al. (1976) investigated the usefulness of these ratings in predicting the childrens' later academic achievement. A total of 63 teachers' ratings of 217 children in fall and spring of kindergarten and again in the second and third grade was collected. The ratings by the teachers predicted achievement nearly as well as an entire battery of achievement tests. The researchers report high correlations between ratings made over three or four years and made by different teachers. Another finding was the difference between boys and girls. Correlations between teacher ratings and standardized achievement tests were consistently higher for girls than they were for boys. Although teachers demonstrated teaching to be more positive toward girls than boys, within each sex their ratings reflected the students' past accomplishments

and predictions of the future.

The rating of self and ratings by peers and teachers are often used in several studies. These ratings by various raters may give a variety of information. In addition to the varied ratings, the assessment of a behavior by the many "significant others" can be time-consuming and expensive. The necessity to reduce the possible confusion and to achieve the best assessment of a particular outcome was studied by Peck et al. (1980). The researchers compared ratings of student coping by himself, peer and teacher as predictors of achievement, self-esteem and attitudes. Using the Behavior Rating Scale, each ratee was rated by self, nine peers and the teacher. The outcome variables were measured using the pre- and posttests of the California Test of Basic Skills to measure achievement; School Sentiment Index to measure attitude; and the Piers-Harris Inventory to measure self-esteem. The findings indicated that the rating by self, peer or teacher has predictive value for achievement, self-esteem and attitude. However, only the teacher rating was found to be sufficient in the prediction of the outcome measured.

Marsh, Parker and Smith (1983) used the Self-Description Questionnaire to relate student self-concept on seven different areas to teacher ratings of student self-concept in the same areas and to academic ability. The

study consisted of 958 fifth and sixth grade students in Australia. The student rating of their own self-concept was moderately correlated (.24) with teacher rating of their self-concept, with Mathematics Self-Concept (.52) and teacher ratings of academic ability (.74). This finding indicates that the multidimensionality of the self-concept creates difficulty in using the ratings by students of self and students by teacher to obtain a high correlation.

As is evident from the above research studies, teacher ratings serve a very useful purpose in natural settings. Because of the amount of time a teacher spends with the child, a teacher's rating may be of significant importance. However, there is inconsistent agreement between self-evaluation and evaluations by significant others.

Summary of Related Research

The review of related research was presented under the sections of Achievement, Self-Concept and Teacher Ratings. After reviewing the literature on the three variables used in this study, several conclusions can be drawn. The relationships between achievement and self-concept are pretty clear. Most studies indicate some relationship between the two with varying degrees of success when they are correlated with sex, race, socio-economic status and the non-promotion of the students studied. The reference to the third variable is built on the assumption that teachers' perceptions

of students should be accurate because of the close relationship which develops from a close working relationship. Research did indicate mixed results on the effectiveness of teachers' ratings of students on academic achievement and self-concept with respect to what others may perceive of the child and the predictive value of later academic ability.

All in all, the literature review revealed mixed findings in the research that has been done on the relationships between or among the variables of student achievement, student attitude, student self-concept, teacher ratings of student performance, retention of students, and various demographic variables. It was felt, therefore, that a study specifically designed to investigate the impact of the PEP-UP program should be undertaken. The current study focuses on a particular cohort of students involved in this program with the aim of providing specific information about student performance in reading and mathematics, teachers' ratings of students and students' self-concepts.

Chapter III

METHODOLOGY

The purpose of this study was to examine the differences in achievement and self-concept among students as a result of participation in the PEP-UP program at the end of grade two in the Richmond Public Schools as compared to a similar group of students who did not participate in the program. Data were gathered regarding change in achievement in reading, mathematics, student reported self-concept and teacher ratings. This chapter describes the methodology of the study, including the population, research instruments, collection of data and the treatment of the data used in conducting the study.

Population and Samples

The population for this study consisted of two groups of students from the Richmond Public Schools. Group I was 15 classes of students enrolled in PEP-UP for the 1982-83 school year. Group II was a closely equivalent group of students selected as a control group who were not participating in the PEP-UP program. The 15 classes of the control group were those students who had been promoted to the third grade but had been assigned to the lowest level reading class. The SRA Achievement Test data in reading and mathematics from the 1981-82 school year were used as the

pretest for the experimental and control groups.

Instrumentation

Scores on a standardized test were used to assess the academic achievement of the students. In grade two the Science Resarch Associates (SRA) Achievement Test and the Short Test of Education ABility (STEA) were administered. The results of the SRA were used to select students for the PEP-UP program. The SRA Achievement Test used as a pretest was the Primary I, Form E, Level I. As a posttest the SRA Primary I, Form F/STEA, Level I was used.

Data for this study were collected through the use of the following instruments.

SRA Achievement Test

The achievement tests are designed to survey students' general academic development in the areas of reading, language arts, mathematics, science, social studies and the use of sources. Information on the students' readiness to learn tasks that are presented in a school situation is provided by the STEA.

Bauernfeind and Brown report in the Eighth Mental Measurements Yearbook (1978) that the SRA Achievement Series and the STEA at the primary levels are very useful and exceptionally well constructed. The reliability and validity data reported support the usefulness of these

instruments. The reliability data are described as follows: "The K-R 20 coefficients for all subtests are acceptably high, averaging .88 or above for all scores except math concepts which fall in the .81-.89 range." (p. 8) It was concluded in the discussion of the validity of the SRA:

> that all information needed to assess content validity is clearly provided. The objectives measured by the various clusters of items which top each objective are identified. Thus users interested in determining content validity have all the essential information readily available for their use. (p. 8)

A sample of 118,000 students from grades 1-9 was used in a four-stage process for standardization. This process included sampling of geographic region, school, specific classrooms and grades. The reporting of scores can be reported as national percentiles, local percentile stanines, deciles, grade equivalents, special percentiles and growth score values. Scores can also be reported for classes, school systems and individual students.

The SRA Achievement Series is a generally accepted measurement of student growth. Forms E and F of the Series are well written and relevant to the people for whom they are written. As stated by Bauernfeind (1978), "I know of no achievement series with better written items." (p. 8)

Self-Esteem Inventory

The Self-Esteem Inventory (SEI) is an attitudinal self-report measure designed for children aged 8 to 10 years. There are two forms of the inventory: Form A contains 58 items and a total of five subscales. Form B contains 25 items and no subscales. Form B is a briefer form than A and takes about one half the administration time. Form B was based on an item analysis of Form A and includes the 25 items which showed the highest items relationship of scores with Form A. The correlation of scores between Form A and B was .86 on four different samples.

Children are administered the SEI which takes about ten minutes to complete, and are asked to respond by checking either "like me" or "unlike me" according to the way they feel about each statement (Borich and Madden, 1977).

The reliability of the SEI was investigated by Coopersmith (1967) and was found to be .88. Test/retest reliability was .70 after a three-year interval. Of the studies conducted to investigate the validity of the SEI, Form B correlated .60 with the Rosenberg Scale with a sampling of 300 students (Borich and Madden, 1977). Thus, the SEI appears to be a useful scale to measure self-esteem for research, counseling and predictive purposes.

Student Self-Concept Rating Scale

The Student Self-Concept Rating Scale (SSCRS) was

developed in the Richmond Public Schools by Phillips and Marriott (1974). It is administered to assess the PEP-UP students' self-concept. The 14 items on the SSCRS which measure observable student behavior cover four major areas: peer group relationship, teacher-student relationship, classroom performance and social relationships. Each item is rated on a scale ranging from "agree very strongly" to "disagree very strongly." The SSCRS is completed by the teacher for each child in the PEP-UP program. The SSCRS served as a pretest in October, 1982, and a posttest in April, 1983. Each choice is assigned a value from six (6) to one (1), where six is assigned the label of "agree very strongly" to one with the lable "disagree very strongly."

The methodological development of the SSCRS is predicated on Lewin's approach to research which emphasized ". . . human behavior in natural settings. Children at play, adolescents in group activities . . ." (Phillips and Marriott, 1974). Since the classroom teacher is expected to rate the behavior observed, the rating is limited to the classroom.

In an effort to develop items for the SSCRS a prototype was developed and issued to a random sample of students. Reliability was estimated by the test/retest method, while validity estimates were derived from correlations between

scores on the SSCRS and scores on the Coopersmith Behavior Rating Form (BRF) which was also administered to the same sample students. Coopersmith's instrument was used to validate the SSCRS because of its extensive use in the area of self-concept.

The test administrations were completed using pre-school, kindergarten, first and second grade classes in the elementary schools in the Richmond Public Schools. The reliability information for the SSCRS is summarized in Table 1.

Collection of Data

The data for the study were collected after seven months of instruction in the school setting. Pretest data for the SRA Achievement Test were collected in the 1981-82 school year. Posttest data using the same test were collected in April, 1983.

The Self-Esteem Inventory and the Student Self-Concept Rating Scale were administered during the month of October, 1982, as a pretest and in May, 1983, as a posttest.

Treatment of Data

The analysis of co-variance technique was used to determine the significance of the gains. Analysis of co-variance reduces the effects of initial group differences by making adjustments of the final means on the posttest

Table 1

Reliability Coefficents for the SSCRS

	Reliability	N
1st Administration	.95	37
2nd Administration	.97	650
3rd Administration	.96	146

data. This method suppresses the production of statistical differences that do not really exist between the experimental and control group (Borg and Gall, 1976). (See design in Appendix E .)

Chapter IV

RESULTS OF THE DATA ANALYSIS

The purposes of this chapter are to present and to analyze the data which were collected for the study. The data were analyzed to determine if significant differences in academic achievement and self-concept occur between students in an intervention program and their peers in regular classrooms. The four hypotheses presented in Chapter I were analyzed using an analysis of covariance. The variables of interest were reading achievement scores, mathematics achievement scores, Coopersmith's Self-Esteem Inventory and the Student Self-Concept Rating Scale. All hypotheses were tested with a probability of .05 or less considered significant.

The data on student achievement in the areas of reading and mathematics were collected from the SRA test results. The pretest data for the experimental and control groups were obtained from the Spring 1982 SRA administration. The SRA achievement test administered during Spring 1983 provided the posttest data.

Data on self-concept were obtained from two sources. The Student Self-Concept Rating Scale (SSCRS) was completed for each student by the teacher in October 1982 as a pretest and again in April 1983 for a posttest. The SSCRS is

a 14-item rating scale designed to measure the student's self-concept within the classroom environment. The four areas evaluated are: peer group, teachers, classroom performance and social activities. Each behavior was rated on a six-point scale (agree very strongly, agree strongly, agree, disagree, disagree strongly and disagree very strongly).

The second set of student self-concept data was obtained from the Coopersmith Self-Esteem Inventory (SEI), Form B. Each student was administered a pretest SEI in September 1982 and again in April 1983 as a posttest. The SEI Form B is a 25-item inventory, dichotomous in design. Students responded to each item by indicating "like me" or "unlike me."

The population of this study consisted of 610 students. Of the total number, 289 were in the control group and the remaining 321 were experimental subjects in the PEP-UP program. The analysis of data was completed for reading, mathematics, student reporting (SEI) and teacher rating (SSCRS) only when subjects had pre- and posttest data. The numbers of students included in the analyses varied because only those with complete data on the various measures of achievement, SEI and SSCRS were used.

Hypothesis 1

There is no significant difference between the reading achievement scores of the PEP-UP students and the reading achievement scores of the closely equivalent group of students not enrolled in the educational intervention program.

The data analysis of the pre- and posttest administration of the SRA Reading Test are presented in Table 2. The experimental group, which scored lower than the control group on the pretest, gained more than 76 points on this measure, while the control group showed a slight loss of more than two points. Analysis of covariance was used to test for differences between groups using pretest scores as the covariate. The results of the data indicated a significant difference between the two groups ($F(1,595) = 117.34$, $p < .0001$). The adjusted posttest mean for the experimental (PEP-UP) group was 241.55. For the control group, the adjusted posttest mean was 187.47.

Hypothesis 2

There is no significant difference between the mathematics achievement scores of the PEP-UP students and the mathematics achievement scores of the closely equivalent group of students not enrolled in the educational intervention program.

Table 3 contains the descriptive statistics for the SRA mathematics test administration. The experimental group, which scored lower than the control group on the

Table 2

Results of Analysis of Covariance of Reading Scores for PEP-UP Students and Control Group Students

	N	Pretest		Posttest		Adjusted Posttest
		$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$
Experimental Group Reading	318	143.86	31.96	220.46	45.72	241.55
Control Group Reading	280	214.55	37.29	212.10	49.43	187.47

$F(1,595) = 117.34$, $p < .0001$

Table 3

Results of Analysis of Covariance of Mathematics Scores for PEP-UP Students and Control Group Students

	N	Pretest		Posttest		Adjusted Posttest
		$\overline{X}$	SD	$\overline{X}$	SD	$\overline{X}$
Experimental Group Mathematics	319	165.18	34.02	211.53	34.64	219.5
Control Group Mathematics	281	201.17	33.89	232.33	41.42	232.28

$F(1,597) = 1.39$, $p > .23$

pretest, gained about 46 points on the posttest. The gain in points for the control group on the posttest was more than 30 points. The findings of the ANCOVA for the differences between the two groups were not significant. The null hypothesis was retained ($F(1,597) = 1.39$, $p > .23$). The adjusted posttest means associated with this analysis for the experimental and control groups were 219.5 and 232.28 respectively.

Hypothesis 3

> There is no significant difference between the self-concept of the PEP-UP students and the self-concept of the closely equivalent group of students not enrolled in the educational intervention program.

Contained in Table 4 are the results of the analysis of the SEI for experimental and control groups. The null hypothesis was retained. The analysis of covariance was used to test for differences between groups. The findings were not significant ($F(1,382) = .38$, $p > .53$). The adjusted posttest means were 51.82 for the experimental group and 51.07 for the control group.

Hypothesis 4

> There is no significant difference between the teachers' ratings of the PEP-UP students and the teachers' ratings of the closely equivalent group of students not enrolled in the educational intervention program.

Table 4

Results of Analysis of Covariance of Self-Esteem Inventory Scores for PEP-UP Students and Control Group Students

	N	Pretest		Posttest		Adjusted Posttest
		$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$
Experimental Group SEI	230	53.63	9.85	52.57	9.54	51.82
Control Group SEI	155	51.79	9.00	50.85	9.9	51.07

$F(1,382) = .38$, $p > .53$

As presented in Table 5, the experimental group scored slightly less than two points lower than the control group, but the posttest score was greater than a three-point gain. The control group was rated approximately the same on pre- and post-tests. The results of the ANCOVA ($F(1,513) = 6.20$, p .02), as there was a significant difference between teachers' ratings of the experimental and control groups.

Summary

The treatment and analysis of data collected through the use of the SRA Achievement Tests, the Coopersmith Self-Esteem Inventory (SEI) and the Student Self-Concept Rating Scale (SSCRS) were presented in Chapter IV. They were presented in tabular form with a brief discussion concerning the test of significance and the results.

The results revealed that there was a significant difference between the groups for the area of reading but not for mathematics. This finding is important since the PEP-UP program stresses both areas of reading and mathematics. It is also important because of the reported association between school achievement and self-concept.

Students reported of their self-concept (SEI) that there was no significant difference between the two groups. However, the PEP-UP students increased slightly over the

Table 5

Results of Analysis of Covariance of Student Self-Concept Rating Scale Scores for PEP-UP Students and Control Group Students

	N	Pretest		Posttest		Adjusted Posttest
		$\overline{X}$	SD	$\overline{X}$	SD	$\overline{X}$
Experimental Group SSCRS	252	54.29	8.42	58.09	9.89	57.4
Control Group SSCRS	264	56.36	9.59	56.34	8.56	55.71

$F(1,513) = 6.20$, $p < .02$

control group.

Teachers in the PEP-UP program rated their students' self-concept higher than the teachers of the control group.

Chapter V discusses the results of the data reported in this chapter with a summary and recommendations for further research related to the PEP-UP intervention program.

Chapter V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The purpose of this chapter is to summarize the findings of the study. This chapter is divided into five sections. Section one reviews the purpose and significance of the study. The related literature is summarized in section two. A summary of research methods and procedures used in the study are presented in section three. In section four is a summary of the findings, and the recommendations for further study are included in section five.

Purpose of the Study

The purpose of this study was to examine the intervention program, PEP-UP, of the Richmond Public Schools in Richmond, Virginia, and to determine if significant differences in academic achievement and self-concept occur between the participants in the program and closely equivalent students not in an intervention program. The performance of the students was compared before and after seven months of program involvement.

Significance of the Study

Intervention has become a vital component of many educational systems. These intervention programs are designed for students with deficienceies in the academic areas,

especially reading and mathematics. Though intervention has been developed at different levels, early identification seems to hold the most promise for students. This study looked at intervention at the end of the second grade. The data provided by this study improves the understanding of PEP-UP as an intervention program and serves as a basis for additional research.

Summary of Related Literature

The review of related literature supplied background information regarding the relationship between academic achievement and self-concept and teacher ratings. The literature is replete with considerable evidence to support the relationship of self-concept and academic achievement. Specific in the research literature is the impact on self-concept and achievement by such variables as the school, teacher, socio-economic status, sex and the ethnic background of the student. The effects of non-promotion on achievement and self-concept were mixed. Many opposing views on the subject of achievement and self-concept were noted.

The literature on teacher ratings also proved to be interesting. It was noted that a teacher's rating may be very significant in present influence and predictive of things to come. Teachers' ratings were also found to correlate strongly with standardized tests in the areas of

English and mathematics. It was accepted that teachers do have some idea of what makes a student good, academically and behaviorally.

The literature did provide a basis for understanding the variables present for this study.

Summary of the Methods and Procedures

This study examined the differences in self-concept and academic achievement which occur among students as a result of participation in the PEP-UP program at the end of grade two in the Richmond Public Schools.

There were fifteen schools selected for this study. Each school was selected because each had at least one class of PEP-UP. One school had two classes located at its location. The control groups were likewise housed in the same schools as the PEP-UP groups. The participants for the study were students and teachers.

Data were collected using the SRA, the SEI and the SSCRS. The SRA Achievement Test data on reading and mathematics from the 1981-82 school year were used as pretest data. The posttest data for both groups was collected after seven months of instruction.

The Student Self-Concept Rating Scale (SSCRS) was completed by each teacher and presented the teacher's assessment of the student's self-concept. The SSCRS measures observable behavior in the four major areas of peer group

relationships, teacher-student relationships, classroom performance and social relationships. Each item is rated on a six-point scale ranging from "agree very strongly" to "disagree very strongly." The pretest was completed in October 1982 and the posttest in April 1983.

The Self-Esteem Inventory (SEI) measures self attitudes in children aged eight to ten years. Form B was used with the students in this study. Students were administered the SEI as a pretest in October 1982 and as a posttest in May 1983. Students responded to the inventory by checking each statement "like me" or "unlike me" according to the way they felt about each statement.

The data were analyzed using the analysis of covariance. The analysis of covariance is a statistical method for testing the significance of the difference between the means of the final experimental data after adjusting for the initial mean differences in the groups.

Summary of Findings

This study was an examination of the PEP-UP program in the Richmond Public Schools. The results produced the following major findings:

1. There was a significant difference in the area of reading achievement between the experimental group (PEP-UP) and the control group after seven months of instruction.

2. There was no significant difference between the experimental group (PEP-UP) and the control group in mathematics achievement scores.
3. No significant difference was found between the experimental (PEP-UP) and control groups' self-concept (SEI). The SEI failed to show a statistically significant difference between the two groups. A slight increase in mean score was noticed for the experimental group.
4. There was a significant difference in the teachers' ratings of student self-concept (SSCRS) after seven months of instruction. The analysis indicated the experimental group (PEP-UP) outscored the control group.

Conclusions

This study was undertaken to determine if there were differences in self-concept and academic achievement occuring in the PEP-UP classes when compared with control classes. Because early intervention was assumed to have significant impact, the teachers' perceptions of self-concept were analyzed also. This investigation generated the following conclusions:

1. The PEP-UP program had an impact on the reading achievement of the students in the program. Although the PEP-UP students did not score as well

as their counterparts in the control group on the pretest reading measure, the analysis of covariance confirmed the obvious point that the PEP-UP program served to enhance the students' performance in reading. On the pretest, the control group students outscored the PEP-UP students by a mean of more than 70 points. This finding is to be expected since reading performance was one of the criteria for assigning students to the PEP-UP program. However, examination of the adjusted posttest means reveals that the PEP-UP students outscored thecontrol group students by about 54 points. Indeed the unadjusted posttest means of the two groups are almost identical.

Two explanations suggest themselves for this finding. First, there is a great emphasis placed on reading in the PEP-UP program. In the program, reading takes up a major part of the instructional time during the school day, and teachers in the program are given staff development programs to improve their instructional techniques. Secondly, it must be remembered that the PEP-UP students are covering material that they have covered previously, while the students in the control group, by design the lowest scoring students who were promoted, are

encountering new material in a classroom environment that is not oriented as intensively toward reading instruction.

2. The impact of the PEP-UP program in the area of mathematics was insignificant. The control group students outscored the PEP-UP students on the pretest and continued their advantage on the posttest. Even after the means were adjusted, the control group mean score was more than 13 points higher than the PEP-UP group mean score.

   It is likely that because of the emphasis placed on reading in the PEP-UP program, mathematics instruction was not as intensive as it otherwise might have been. However, although the PEP-UP students could not overtake the control group students in the area of mathematics, they did manage to close the gap in mean scores from pretest to posttest.

3. Analysis of the data revealed that the PEP-UP program had no noticeable affect on the scores on the Self-Esteem Inventory. In fact, both groups showed a minute decline from pretest to posttest score. The analysis of covariance revealed that these differences were about what could be expected as a result of random chance.

It appears that neither the PEP-UP program nor the regular classroom program was improving students' reported self-esteem over the seven month period of this investigation.

4. Analysis of the data on the Student Self-Concept Rating Scale reveals an interesting finding. The ANCOVA shows that the PEP-UP students significantly outscored their control group counterparts in the adjusted posttest mean score. This finding seems peculiar in view of the fact that there was no significant difference between the groups on the measure of self-esteem.

Apparently, although the terms "self-esteem" and "self-concept" are used interchangeably in the literature, as well as in this research, they may represent two different constructs. Additionally, it is possible that pupils and teachers see pupil self-esteem through different views. It is more likely, however, that the two measuring instruments, the SEI and the SSCRS, are measuring two different dimensions of the same construct. More importantly, although the difference in adjusted posttest means between the two groups is enough to cause statistical significance, it is hardly enough to cause practical concern.

Recommendations

This study confined itself to results after seven months of instruction. It may be that a longer period of time may have produced different results. The following recommendations are suggested for further study:

1. Extend the study of the PEP-UP students over a period of years, especially at the elementary level to see if the growth continues or if they enter another intervention program.
2. Compare other instruments of student self-concept to see if another instrument is more appropriate, or decide if student self-concept is a viable tool for use with students.
3. The staff development program for teachers should include increased emphasis on the social and emotional growth of child development.
4. The replication of this study should be undertaken with other intervention programs in other geographical areas.
5. Continue the research and experimentation with techniques for increased learning, to improve the success for a larger number of students.
6. Consideration should be given to spending one-half of each day in the PEP-UP program for intensified reading instruction and teaching the other subjects

in regular classes.

7. Additional research on intervention programs needs to be done. Particularly, analysis of any parental differences which may contribute to student achievement should be studied.

Additional research studies may produce further information about self-concept, student reporting of self-concept, teacher ratings of self-concept, and the relationship of teacher ratings and academic success. Educators may increase their abilities to understand student progress.

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APPENDIX A

Letter Requesting Permission to Conduct the Study from the Department of Planning and Development

Richmond, Virginia
July 22, 1982

Dr.
Director of Planning and Development

Richmond, Virginia

Dear Dr. :

Please find attached an official request for research to be completed using subjects in the Richmond Public Schools. This research is to be utilized in my dissertation work being completed at Virginia Polytechnic Institute and State University.

It is my sincerest wish to use the data in a positive means as an employee of the Richmond Public Schools. I hopefully have completed all information required for a positive response to this request. I would appreciate a response at your earliest opportunity.

Thanking you in advance for your cooperation.

Respectfully,

Ronald L. Carey

Attachment

APPENDIX B

Student Self-Concept Rating Schedule (SSCRS)

STUDENT SELF-CONCEPT RATING SCHEDULE

Student_____

Student No. _ _ _ _ _ _ _ _ _ _

School _ _ _ H.R. _ _ _

	Agree Very Strongly	Agree Strongly	Agree	Disagree	Disagree Strongly	Disagree Very Strongly
The Peer Group						
1. This child prefers to play with other classmates rather than playing alone						
2. When interacting with classmates, this child appears free from shyness and self-consciousness						
3. When interacting with classmates, this child appears to be not easily embarrassed						
The Teacher						
4. When relating to you, this child appears self-controlled and good tempered						
5. This child responds affirmatively to your requests						
6. This child appears to enjoy contact with you, but does not seek an undue amount of attention						
7. This child acts as if he believes you approve of his classroom behavior						
Classroom Performance						
8. This child is skilled in his utilization of classroom materials						
9. This child is creative in his utilization of classroom materials						
10. This child is competitive and makes an effort to excel						
11. This child responds positively to new learning situations						
Social Activities						
12. The child appears to enjoy playing the role of mediator among his fellow classmates						
13. This child appears pleased when requested to share with the class some of his creative efforts (i.e., paintings, drawings, etc.)						
14. This child appears pleased when called upon to recite or otherwise inform his classmates (i.e., "show and tell" time, etc.)						

APPENDIX C

Self-Esteem Inventory (SEI)

Form B

SELF-ESTEEM INVENTORY (SEI)
Stanley Coopersmith
University of California, Davis
(Revised, P. K. Yonge 1972)

Name _____ School Number ___ ___ ___

Student Number ___ ___ ___ ___ ___ ___ ___ ___ Program _____

Please mark each statement in the following way:

If the statement describes how you usually feel, put a check (√) in the column "Like Me."

If the statement does not describe how you usually feel, put a check (√) in the column "Unlike Me."

There are no right or wrong answers.

	Like Me	Unlike Me
Example: I'm a hard worker.	_____	_____
1. I often wish I were someone else.	_____	_____
2. I find it very hard to talk in front of the class.	_____	_____
3. There are lots of things about myself I'd change if I could.	_____	_____
4. I can make up my mind without too much trouble.	_____	_____
5. People think it is fun to be with me.	_____	_____
6. I get upset easily at home.	_____	_____
7. It takes me a long time to get used to anything new.	_____	_____
8. Kids my own age like me.	_____	_____
9. My parents usually consider my feelings.	_____	_____
10. I give in very easily.	_____	_____
11. My parents expect too much of me.	_____	_____
12. It's pretty tough to be me.	_____	_____
13. I have lots of worries.	_____	_____
14. Kids usually follow my ideas.	_____	_____
15. I don't think I'm very good.	_____	_____
16. There are many times I'm very unhappy at home.	_____	_____
17. I often feel upset at school.	_____	_____
18. I'm not as nice-looking as most people.	_____	_____
19. If I have something to say, I usually say it.	_____	_____
20. My parents understand me.	_____	_____
21. People like others better than they like me.	_____	_____
22. My parents usually try to make me do things.	_____	_____
23. I often get discouraged in school.	_____	_____
24. Things usually don't bother me.	_____	_____
25. People can't depend on me.	_____	_____

APPENDIX D

PEP-UP Objectives 1982-83

PEP-UP PERFORMANCE OBJECTIVES 1982-83

1. By the completion of the 1982-83 school year, PEP-UP students will achieve an average of one month gain in reading achievement for each month of instruction as evidenced by comparing results on the spring 1982 SRA reading test to the spring 1983 SRA reading test.
2. By the completion of the 1982-83 school year, PEP-UP students will achieve an average of one month gain in mathematics achievement for each month of instruction as evidenced by comparing results on the spring 1982 SRA mathematics test to the spring 1983 SRA mathematics test.
3. By the completion of the 1982-83 school year, PEP-UP students will demonstrate growth in classroom self-concept as evidenced by a statistically significant gain (.05 level) between average fall 1982 pretest and spring 1983 posttest scores on the Student Self-Concept Rating Schedule.

APPENDIX E

Design of Study

DESIGN FOR STUDY

PEP-UP	CONTROL GROUP
1. Select fifteen classes of students in the Intervention Program	1. Select fifteen third grade classes as control group from same school as PEP-UP classes are chosen
2. Use pretest SRA scores from May 1982	2. Use pretest SRA scores from May 1982
3. Pretest in October, 1982 with Self-Esteem Inventory and Student Self-Concept Rating Scale	3. Pretest in October, 1982 with Self-Esteem Inventory and Student Self-Concept Rating Scale
4. Pep-Up receives treatment	4. No treatment
5. Posttest in April, 1983 using same instruments: SRA, SEI and SSCRS	5. Posttest in April, 1983 using same instruments: SRA, SEI and SSCRS
6. Use analysis of covariance to analyze data	6. Use analysis of covariance to analyze data

APPENDIX F

Description of PEP-UP Program--
Richmond Public Schools

RICHMOND PUBLIC SCHOOLS

PROPOSAL FOR

PRIMARY ENRICHMENT PROGRAM (PEP)

Rationale

A review of the performance of all students in grades K-2 in the Richmond Public Schools indicates that significant numbers of students are evidencing difficulty in reading and mathematics. Although the scores of these students on the Metropolitan Readiness Test range from slightly below average to slightly above average, they do not perform well in the beginning formalized reading and mathematics programs. The results from the SRA achievement tests in reading and mathematics administered to the second grade students in October 1976 indicated that of the 2,571 students tested, 835 (32.5%) performed at a grade equivalent of 1.3 or below in reading, and 963 (35.5%) performed at a grade equivalent of 1.7 or below in mathematics. The national grade equivalent mean for second grade students tested in October is 2.2.

The data from the third grade achievement results in reading and mathematics further revealed that 825 (33.1%) of the students performed at a grade equivalent score of 2.3 or below in reading and 902 (36.1%) of the students scored at a grade equivalent of 2.5 or below in mathematics.

At least two reasons can be cited as factors which contribute to the poor achievement of this group of students:

1. Many of these students enter school with a less than marginal background of pre-school experiences in such major areas as oral language and perceptual skills.
2. Too often, the child is asked to deal with abstract information before developing a strong conceptual base for understanding basic reading and mathematics skills.

Therefore, there is a need to provide intensive instruction for students who have deficiencies in the fundamental skills in the primary grades.

Program Description

The Primary Enrichment Program (PEP) is designed to provide intensive instruction to designated students at each level, from kindergarten through the second grade, who have not mastered certain minimum skills. It is a total program to provide for the cognitive, affective and psycho-motor needs of students. The program will consist of the following two parts:

Part I: PEP Lower Primary Program provides intensified instruction for specific students in the regular class.

Part II: PEP Upper Primary Program (PEP-UP) is a continuation in the second grade for an additional

year for the students who have not achieved according to specified objectives. This phase provides intensive instruction for the development of basic mathematics and reading skills, including psycho-motor efficiency and auditory and visual discrimination. The PEP-UP also includes opportunities to develop healthy affective behavior.

The program is based on an eclectic approach which includes three components functioning simultaneously:

1. Developmental, to teach basic reading and mathematics skills,
2. Functional, requiring application of these skills,
3. Recreational, encouraging opportunities to read and use mathematics according to each individual's interests and abilities.

Program Goal and Objectives

The Virginia State Standards of Quality mandates that by September 1978 the Board of Education in cooperation with local school divisions, shall establish specific minimum statewide objectives in reading, communication and mathematics skills that should be enriched during the primary and intermediate grades. The objectives of the Primary Enrich-

ment Program of the Richmond Public Schools support this mandate. They are:

1. To provide intensive instruction that will enable students to achieve, according to specified objectives, minimum skills in reading and mathematics
2. To provide for physiological needs as appropriate
3. To provide enriching experiences which will increase knowledge and understanding
4. To promote emotional well-being and positive self-concepts
5. To promote participation as a responsible citizen
6. To provide a program for each student based on careful diagnosis
7. To involve parents as "partners" in the program
8. To provide for continuous staff development

Student Selection and Organization for Instruction

A. Entering the Program

1. PEP - Lower Primary

1.1 All students entering kindergarten will be screened with the Metropolitan Readiness Inventory by the end of the first month of school and placed in a section of the kindergarten program that can best meet the identified needs of the student.

1.2 Students in grades one and two who have not mastered specific mathematics and reading skills will receive intensive instruction in the regular classroom, with additional instruction, if eligible, from the supportive programs (Title I Reading, Title I

Mathematics, and Special Education Resource).

2. PEP - Upper Primary

2.1 Screening

2.1.1 Second grade students with a composite score of 1.4 (8 months below grade level) on the SRA Achievement Test in October will be included in the April testing program to determine eligibility for PEP-UP.

2.1.2 Regardless of the composite score, children whose reading sub-test score was below 1.4 in October will be tested.

2.1.3 Students who were not tested in the fall of the school year will be tested.

2.1.4 Students diagnosed as needing special education, with the exception of those who are mildly learning disabled, as determined by the PPS team, will be excluded from the testing program.

2.2 The following criteria will be used to determine eligibility for admittance to PEP-UP:

2.2.1 Second grade students who score below 1.8 (composite) in April on the Primary I, Form F SRA Achievement Test.

2.2.2 Regardless of the composite score, children whose reading sub-test score is below 1.8 will be place in PEP-UP.

2.3 Students falling in the following categories should be referred to a Review Committee for alternative placement or recommendations:

2.3.1 Overage (ages 9 and above)

2.3.2 Questionable test results

2.3.3 Any questionable situation

B. Exiting the Program (PEP-UP)

1. At the end of one year in the intensified program, each student shall exit the program with specific recommendations for placement.

2. Where there is unusually rapid progress, the student should be retested and his case reviewed by the Review Committee to determine the feasibility of early exit from the program or for placement in the 4th grade the following September.

C. Class Size

1. PEP-LP -- Some attention should be given to a slightly lower than average teacher-pupil ratio in classes where there is a large concentration of students not meeting the minimum objectives.

2. PEP-UP -- Class size is to be limited to approximately 25 students with two adults (a teacher and a teacher helper). Both should have been specifically trained for the program.

Personnel

A. Selection of Teachers

1. In order to aid in the identification of the best suited teachers for the PEP-UP classes, the following characteristics should be considered:

1.1 Successful pupil relations

1.2 At least one year of successful experience in the teaching of reading and mathematics

1.3 Previous K-1 teaching experience

1.4 Good physical and mental health

1.5 Demonstrated ability to use alternative methods to meet the needs of individual students

2. To insure the selection of capable and willing staff for the program, teachers presently assigned to grades K through 2 who possess the characteristics in A.1. should be identified by principals and curriculum specialists and/or central office personnel for assignment to the PEP-UP classes.

B. Resource Personnel

1. The services of resource persons (i.e., mathematics, reading and special education resource teachers) and pupil personnel services staff will be utilized in the program.

2. The curriculum specialist and guidance counselor will be directly involved in implementing and evaluating the program.

Parental Involvement

Parents shall be actively involved in the program in the following ways:

1. Participation in the development of the plan by representatives of parents and lay citizens.

2. Involvement of the parents of students in the PEP-UP in a program of parent education.

2.1 Planned program of parent activities to help them become fully aware of the purposes of the program and the needs of their child.

2.2 A handbook of suggestions for parents for assisting their students at home with a built-in periodic feedback system.

2.3 Involvement of parents as classroom volunteers.

2.4 Involvement of parents to disseminate information to the general public.

Orientation

A. The proposed program will be presented to principals,

curriculum specialists, teachers, and other school staff:

1. During principal's and curriculum specialist's meetings

2. During faculty meetings

B. Parents will be informed of the proposed program as soon as possible:

1. Through parent group meetings

2. Through special meetings designed for this purpose

3. Through special meetings of parents of participants

4. Via the Federation of PTA's

5. Via the news media

C. Continuing orientation -- plans should be developed for involving parents, whose students are participants, periodically throughout the year, for example:

1. Workshops for parents

2. Parent Day

Staff Development

Staff development for PEP shall consist of a variety of activities:

1. Special workshops during August for participating teachers and teacher helpers

2. Participating teachers will be encouraged to enroll in college courses in child development, developmental reading and mathematics

3. Consideration will be given to establishing non-college credit courses for certification renewal in such areas as:

3.1 Diagnostic Techniques for Language Arts and Mathematics

3.2 Affective Behavior of Teachers and Students and other topics of interest based on assessed needs of participating teachers

3.3 Teaching the disabled child

4. Staff development at building level during EPAH time may include sessions such as the following based on the assessed needs of participants:

a. Planning instructional strategies for intensified instruction

b. Test interpretation and utilization of test results

c. Understanding and developing test formats

d. Investigating testing techniques for listening, speaking and writing

3. Developing teacher and student-made materials for enrichment and/or remediation.

Evaluation Process

A. Formative Evaluation (evaluation related directly to diagnosis and instruction)

1. A plan of accounting for and reporting on the progress of each student will be implemented at the individual school level by the school staff and according to the particular needs of the situation.

1.1 The students should be constantly aware of the specific objective to be accomplished.

1.2 Evidence of progress or lack of progress toward objectives should be collected throughout the school year. This information will provide feedback to students, the sending and receiving teachers and parents.

2. Evidence of the progress of the class as a whole will be collected throughout the program, thus making teachers constantly aware of class progress toward objectives.

B. Summative Evaluation

A general assessment could be made of the extent to which the performance (especially in reading and mathematics) of the students was improved by participation in PEP. A limited, "learner-outcome" type of summative evaluation could be planned and implemented centrally.

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