A COMPARISON OF PRESCHOOL ATTAINMENT RECORD RATINGS BY PARENTS AND TEACHERS OF FORTY FIVE-YEAR-OLD LOWER- AND MIDDLE-INCOME CHILDREN

by

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CHAPTER I

INTRODUCTION

In the United States we traditionally have favored the principle of educational opportunity by which all children may develop their abilities to the fullest capacity. Our national public school system was established for achievement of this goal. Today, it is evident that some form of education is available to 99.2 percent of all children between 6 and 13 years old. Our educational system is used by the greatest number of children between these ages. Approximately 94 percent of all adolescents enrolled in public high schools attend for one year and, of these, 82 percent do graduate (Jenks, 1972).

The concept of education for children from birth to 5-years-old has been a recent recipient of widespread attention; however, it is not a new idea. Early childhood education can trace its origin in this country to a kindergarten established by Miss Elizabeth Peabody as long ago as 1860. The first public kindergarten was opened in 1863 in St. Louis, Missouri. Nursery schools were introduced around the turn of the century at Teacher's College, Columbia University and at the Merrill-Palmer School of Motherhood and Home Training in Detroit, Michigan. From these early beginnings, preschool

education has worked its way into our educational system as a respected preparational experience for entrance into first grade (Leeper, Dales, Skipper, and Witherspoon, 1971).

Preschool education, in 1960, was primarily confined to private centers which only middle-class parents who wanted organized opportunities for social development of their children could afford (Jenks, 1972). Since 1964, with the advent of Head Start, a tremendous upsurge of interest in the education of young children has been in evidence (Calvert, 1969). Between 1960 and 1970, kindergarten attendance in the United States rose from 60 to 80 percent (Jenks, 1972). Research published in the early 1960's has probably helped to precipitate this trend. New perspectives were added to the worth of preschool education. J. McVicker Hunt, in 1961, linked environmental factors with the etiology of mental retardation. Hunt's findings suggested that early modification of a child's surroundings could lead to improvements in intellectual development. Relative to this, Benjamin S. Bloom (1964) published his belief that 50 percent of all intellectual growth occurs from the time of conception to the age of 4. By the age 8, 80 percent of adult capacity is attained.

The growth of interest in child development brought to light the fact that only one-third of all handicapped children were served by special education (Kirk, 1972). Many children were entering the first grade with undetected

handicaps. Repeated failures in school were necessary before problems were appraised. Early identification and remediation of defects were identified as key factors in the prognosis for the handicapped child's school success. In 1964, Congress reacted to the publicity about the importance of early diagnosis and care for disabilities of young children. Nation-wide Head Start was established for children from homes with a low socio-economic level. This program was to provide enrichment for intellectual growth.

In the spring of 1964, another event occurred which was of great importance to our outlook on preschool education. An epidemic of German measles left 20,000 to 30,000 newborn babies with birth defects (Abeson, 1972). Handicaps caused by this virus included blindness, hearing loss, brain damage, and heart disease (Gaver, 1972). Inner urban slum areas were the hardest hit. The national response to the disaster broadened the consideration of preschool objectives. Congress responded in 1968 with the passage of the Handicapped Children's Early Education Assistant Act.

The programs set up by the Handicapped Children's Early Education Assistance Act authorize the establishment and operation of model preschool and early education projects. To be funded, a center must offer some type of innovative system for teaching the handicapped. All handicapped children are eligible for service under this act. Handicaps, as defined in the Program Administration Manual (1972),

include mental retardation, hearing loss, speech impairment, visual defects, emotional disturbance, crippling conditions, and other physical health disorders.

For this research paper, general consideration of educational handicaps will be extended to include any child who cannot develop to the optimal limit of his capacity in the typical classroom (Kirk, 1972). This would allow the socio-economically deprived child who would attend a Head Start Center to be considered handicapped. This label would not be given to imply inherent inability within the child. It would recognize the deficiencies which have been created by a society and educational system oriented toward the middle-class.

Head Start and the Handicapped Children's Early Education Assistance Program have been landmarks for special education (Calvert, 1969). They represent the first major congressionally approved actions specifically for handicaps of very young children. They have given promising vehicles by which a child may receive early diagnosis and treatment for disabilities, although limitations of the services these programs render have already been brought to light by evaluative research.

After Head Start's first few years of existence, studies were conducted to determine its impact and effectiveness. The most notable research was the Westinghouse Study which suggested that Head Start did little to prevent scholastic

failure in elementary school (Calvert, 1969). By 1970, dissatisfaction with Head Start forced the Office of Child Development to undertake an experimental Planned Variation Model Program (McDonald and Soeffing, 1971). Free play, field trips, and social activities of private nursery schools were the predominant orientation found in Head Start Centers. Planned Variation Model Programs were established to encourage innovative methods for preparing disadvantaged children for the expectations of public school.

Some of these Planned Variation Model Programs have gained respect and recognition for their contributions to preschool education in general. Programs such as the Cognitively Oriented Curriculum Preschool Project in Ypsilanti, Michigan, have drawn ideas from some of the most respected scholars of child development (Weikart et al., 1971). Jean Piaget and Maria Montessori have been two of the most influential sources.

Under the guidance of Ira Gordon, the Parent Education Project at the University of Florida has promoted working directly in the home with children from their birth. Children beyond two years of age graduate to "Backyard Centers" which are run by trained low-income mothers (Gordon, 1969). The acceptance of programs, such as Ira Gordon's, has given impetus for initiation of Home Start Programs. These emphasize providing parents with methods for working with their children during the first 3 years of life.

Numerous studies have been conducted to evaluate the success of the Planned Variation Model experiment. Some important implications can be drawn from these (Spicker, 1971). Children who attend models which stress cognitive or academic development show the largest intelligence quotient score increases. Traditional curriculum approaches can encourage significant intellectual growth in children only when the programs contain specific short and long term goals, especially in language development. Primary grade teachers and administrators need to make adjustments to maintain progress gained in Head Start programs. Home intervention during infancy can foster academic and emotional benefits for the child and can also increase the mother's present and future skill as a parent.

The Handicapped Children's Early Education Assistance Program has been hampered by limitation of funds and by the relative newness of its services (DeWeerd, 1969). In 1971, there were 41 model centers in operation under the Handicapped Children's Early Education Assistance Act. Many more were in the planning stage. Programs funded by Planned Variation, Home Start, and the Handicapped Children's Early Education Assistance Act may increase rapidly and services may prove to be beneficial. Tremendous needs still exist, however, for ways by which preschool handicapped children can be identified and treated.

Statement of the Problem

The comprehensive programs designed for the very young handicapped need an accurate and effective method for locating children who need to be treated. Most measures for evaluation of the preschool child's development rely on task performance. These instruments primarily appraise intellectual functioning (Blair, 1970). The Bayley Scales of Mental and Motor Development give a well-rounded evaluation of infants from birth through 3 years of age. There are many other notable mental tests. These include the Revised Stanford-Binet Intelligence Scale, the Wechsler Preschool and Primary Scale of Intelligence, Goodenough Draw-a-Person, Cattell Infant Intelligence Scale, Gesell Developmental Schedules, Peabody Picture Vocabulary Test, Merrill-Palmer Scale, Grace-Arthur Performance, Minnesota Preschool, Raven Progressive Matrices, Leiter International, Kuhlman-Binet, and Griffith's Abilities of Babies Scale (Stephens, 1972).

Although there are numerous tests available, tools for assessment of preschool development remain limited and deficient. For example, most scales which require direct participation are impeded if a child has perceptual, communicative, and behavioral disabilities (Doll, 1972). Fear of a strange examiner, fatigue, and erratic length of attention span can also distort a preschool mental test's results (Bayley, 1970). Those which emphasize mental functioning do not screen adequately for social and physical development

(Doll, 1967).

Rating scales constitute one alternate method by which a child can be assessed. These are especially helpful if disabilities which prevent direct testing are present. Not many rating scales combine physical, social, and intellectual evaluation of preschool children for a global understanding of their ability. Designing reliable screening measures for a wide span of capacities is complex and difficult (Starr, 1972). Some of the most frequent limitations are poor validity, circumscribed age norms, difficulty of use, insufficient diagnostic precision, cultural bias, inadequate predictability, incomplete definition of a child's functioning, and lack of theoretical rationale for dimensions considered (Stott and Ball, 1965). Most scales for measuring normal development also do not indicate the causes of specific detriments to achievements (Blair, 1970).

Accuracy of a rating scale is frequently dependent upon who is being interviewed. Some data indicate that parents are the least reliable reporters of their child's behavior (Blair, 1970). Inflation of scores appears to be the most prevalent problem in parents' evaluation of their children (Stedman, 1969). Yarrow (1963) described mothers as extremely ego involved observers of their children, whose interview responses actually represent self-descriptions or those taken from traditionally accepted persons, such as Dr. Spock. Kohn and Carroll (1960) reported low agreement

among family members questioned about behavioral roles within the home. Wenar and Coulter (1962) interviewed mothers concerning their children's development at 3 and 6 years of age. In the second interview, 57 percent of their judgments remained the same. Eron et al. (1961) reported that mothers and fathers did not agree to an appreciable level in ratings of either their children's behaviors or interactions with their children. When an evaluation was obtained from an outside observer, very often the fathers' scores were more reliable than those of the mothers. Smith (1958) studied mother-child interaction of 30 pairs of subjects using interview and observational techniques. She established that there was no significant difference in the effectiveness of either method of evaluation. Although the interview has limitations, it may not have any more than other assessment devices.

Hoffman and Lippitt (1960) listed several reasons for verbal distortion in report systems. They cited deliberate unwillingness of a person to divulge information and also nondeliberate withholding of information which stems from lack of communicative ability or forgetfulness. Hoffman (1957) recommended using questions concerning the child's immediate or recent behavior to make an interview more accurate. He also suggested that the interview technique provided advantages such as greater flexibility and wider coverage of material in a limited time span not offered by

observation.

Parents have been observed as questionable reporters of their children's behavior. Perhaps teachers are more competent and less emotionally involved as commentators on children's abilities (Blair, 1970). If so, the preschool teacher is in a strategic position for locating and reporting possible handicapping conditions. Preschool teachers, however, are not always skilled observers of abnormal childhood behaviors. If the teacher could be equipped with a reliable rating scale, she would be able to collect concrete evidence for referring a child to a specialist (Doll, 1967).

Statement of the Purpose

The Preschool Attainment Record (PAR) is one scale designed for global evaluation of preschool level achievements (Doll, 1967). Results obtained on the PAR are derived from interviews with adults familiar with a child's typical social, physical, and intellectual behaviors. Teachers, mothers, and fathers are generally recognized to be the most influential and familiar figures within the preschool child's life. They, therefore, were chosen as the respondents for this study. Fathers' ratings have never been used in research done on the PAR before. The purpose of this study is to examine the differences and consistencies found by comparison of teachers', mothers', and fathers' ratings of 5-year-old children on the PAR. Results from analysis of the ratings should indicate whether there are differences in the way parents and

teachers evaluate children.

The Specific Objectives of This Study

1. Attainment Quotient scores from the PAR will be compared to see if there is any significant differences between parent and teacher ratings.
2. Attainment Quotient score means from the PAR will be examined to determine whether there is a significant difference between ratings for first and later born children.
3. Attainment Quotient score means from the PAR will be analyzed to see if there are differences in parent and teacher ratings within and between the preschool centers used in this project.

CHAPTER II

REVIEW OF LITERATURE

The purpose of this review of literature is to examine, follow up, and extend upon some of the implications drawn from previous research on the Preschool Attainment Record (PAR). John Blair and Donald Stedman (1970 and 1969) have suggested that family structure, socio-economic class, parental expectations, and test limitations have a bearing on the outcome of the scores of the PAR. The more an examiner knows about these variables, the better his perspective will be for understanding how to interpret the Attainment Quotients for the PAR.

The PAR is designed for use with children from 6 months to 8 years old. Evaluation is based on a wide range of characteristics that can be observed in most preschool children (Doll, 1967). The scale assesses what a child usually does at home and at school by interviews with parents and teachers. The child, thus, does not have to be judged on one performance alone. The scores on the PAR are given in terms of Attainment Age and Attainment Quotient.

Research Conducted on the Preschool Attainment Record

Donald Stedman (1969) conducted a study using the Preschool

Attainment Record (PAR) shortly after it was published. Seventeen disadvantaged 5-year-old children were rated. Eight boys with a mean age of 67.25 months and a mean Intelligence Quotient (IQ) of 91.5 and nine girls with a mean age of 68.66 months and a mean IQ of 90.5 were evaluated in interviews with mothers and teachers. Sets of interviews pertaining to each child were conducted within a two week period. Attainment Quotients (AQ) were tabulated from responses to items included in the PAR's eight subcategories of Ambulation, Manipulation, Rapport, Communication, Responsibility, Information, Ideation, and Creativity. According to mean IQ and AQ data, the mothers rated their sons significantly higher than teachers ($p<.05$). There was no significant difference in mothers' and teachers' evaluation of girls. However, when girls and boys scores were combined, mothers gave significantly higher ratings than did teachers ($p<.05$). This probably was caused by the statistically large difference between mother and teacher ratings for boys. Maternal overevaluation, or teacher underevaluation, occurred in subgroups of Rapport, Manipulation, Communication, and Creativity. The other four subcategory scores for boys and all eight subcategory scores for girls ratings were similar (Stedman, 1969).

Two studies of the Preschool Attainment Record report system have been carried out by John Blair. Blair's (1970) findings reinforced Donald Stedman's preliminary conclusions

that mothers overrate their male children. Blair's first study evaluated ratings by mothers and teachers of 20 4-year-old children. These children were enrolled in the same pre-school program. Ten boys with a mean age of 55 months and mean IQ of 113.78 and ten girls with an age of 54.9 months and a mean IQ of 109.88 were evaluated on the PAR. AAs and AQs were computed for the 20 children. Mothers' and teachers' ratings were then compared. Mothers AQs for boys were significantly higher than those of the teachers' ($p<.02$). There was no statistically significant difference for girls. The Mothers' scores for all male and female children were higher than those of the teachers. This difference was mainly due to the gap between the mothers' and teachers' scores for boys. Mother and teacher ratings of boys disagreed in the subcategories of Ideation, Information, and Communication. Except for Communication, the other areas of dispute were different from those found in Donald Stedman's study.

The results of Blair's study suggested that parent ratings on the PAR are more influenced by their expectations than by the child's real performance (Blair, 1970). If this is true, perhaps mothers place high value on achievement for their sons. Sex differences appeared in two of the three Intellectual Categories. Assuming that mothers wish to see outstanding ability in their sons, it could be possible that they look closely for competence and may report behaviors which are unrealistic (Blair, 1970).

Blair (1970) stated that the results of his studies could also be interpreted in terms of teacher underevaluation. Seen in this light, it would be possible that female teachers tend to be biased toward girls. Dixon, Frikuda, and Berens (1968) found that teachers did rate girls as superior on indexes of achievement. Gordon (1967) discovered that teachers' ratings were affected by children's behavioral style or temperament. Meyer and Thompson (1956) related that boys' "masculine behaviors" are not accepted. Teachers' preference, therefore, might be for "better behaved" girls. Girls may often achieve better marks in early grades of school just because they have been socialized on how to please teachers. The discrepancy between the mothers' and teachers' scores could imply also the existence of two frames of reference for scores of children's abilities. The teacher judges a child within the realm of school. The mother is familiar with the child's behavior at home (Blair, 1970).

Blair's second study of the PAR examines in more depth findings brought forth in the previous research. Fourteen boys with a mean age of 5 years, 7 months and 14 girls with a mean age of 5 years, 9 months were rated by mothers and teachers. All children were enrolled in a Title III Program for detection of learning disabilities. Each child had attended preschool for one year. Mothers and teachers were given the scale within two weeks of each other. Results revealed a mean AQ of 107.50 for teachers and 110.72 for

mothers. The 3.22 difference between maternal and teacher ratings was significant ($p<.05$) for a one-tailed test ($T=1.75$, $df=27$). This discrepancy in mother and teacher ratings was consistent with the results of the previous studies by Stedman and Blair.

Data and subjects from both of Blair's (1972) studies were combined for further examination of significant differences between mother and teacher ratings. One year after Blair's second study, two subtests of the Metropolitan Readiness Test were administered to the 30 subjects remaining from the previous research. Twenty of the 28 subjects and 10 of the 20 subjects were rated. Data for the two groups showed that 5-year-olds were rated higher than 4-year-olds by both mothers and teachers. This could be a result of the more mature behaviors exhibited by the subjects after a year of growth. When all scores were compared by point biserial coefficients, age was found to be a factor of difference in AQ, especially for Physical and Social area. The data, in regard to Metropolitan Readiness Test Composite Measures and PAR ratings, show that validity coefficients are higher for ratings of teachers than of mothers. Correlation for teachers was .69 and for mothers .46. Age range for these data was controlled by partial correlation. Mothers' ratings were shown to give very little prediction of Metropolitan Readiness Test success ($T=.64$, $M=.24$). Comparatively, teachers' ratings were more valid than mothers in forecasting scores

on the Metropolitan Readiness Test. In a limited way, this may indicate that teachers' ratings are a fairly accurate estimation of a child's abilities as he enters school. However, it does not indicate what influence high maternal expectations may have on boys' later achievement drive.

Blair (1972) concluded his last PAR study by making several recommendations for increasing validity and for more practical means of applying the scale's results. He thinks that the interviewer should spend time observing each child before the rating scale is administered. If the interviewer is familiar with the child, then bias on the part of the reporter might be more easily detected. Blair also suggested that PAR ratings should not be taken as the estimate of a child's maximum potential, but only as an indication of the child's minimum achievement level. The person being interviewed should be told in advance that the child is not expected to be able to do all that will be asked in the interview. The examiner could explain that the inquiry will go beyond the child's age range in order to obtain a performance ceiling for better evaluation of the child's abilities. Blair recommended that preschool programs should emphasize more parent and teacher interaction. A more realistic understanding of a child's potentialities and achievements might be reached in the light of these different expectations and aspirations.

Family Effects on Socialization

According to Kohn (1968), family socialization differs significantly from one socio-economic class to another. Middle-income mothers feel more confident about their methods of child-rearing. They accept their responsibility for nurturing their childrens' future abilities. Lower-income mothers are more ambivalent in approaching the role they have for influencing the behaviors of their children. Starr (1972) suggested that the lower-income child has parents who do not realize that they have practices which guarantee poor performance. These lower-income parents often perceive a need for strict control (Gildea et al., 1961). Hoffman (1957) indicated that power assertions are more prevalent in lower-income families than in those of middle-income. Working-class parents tend to use ridicule, shouting, or physical punishment. Elder and Bowerman (1963) found that with an increase in family size, lower-income girls are most apt to perceive their fathers as authoritarian. Daughters in these families viewed both parents as non-communicative, more punitive, and less likely to express praise.

Sears et al. (1957) believe that the child's desire to identify with his parents is strong. He will adapt to modes of behavior he perceives as appropriate and conducive to parental approval. Close parental identification decreases with the use of physical punishment (Lefkowirz et al., 1963). Digman (1963) and Hurley (1965) indicated a negative relation-

ship between parental attitudes of harsh rejection and a child's intellectual development. Middle-class parents provide more warmth in socialization practices. They are also more likely to use reasoning, isolation, and show of disappointment in dealing with their children. Middle-income children, therefore, have a stronger perception of role models than lower-income children.

Sheldon (1968) found that children of fathers and mothers who have gone furthest with their education evidenced greater originality than children of parents with less schooling. Rosen (1964) discovered that middle-income boys were more likely than those of lower-income to evaluate their parents as successful, smart, ambitious, and secure. These middle-income boys received a reciprocal reinforcement in the form of parental acceptance and support for their achievements. This parental understanding of a child is positively related to accomplishment of basic skills and school grades (Morris, 1968 and Hurley, 1965). Mote (1967) agreed that if parents show satisfaction with a child's learning level, this positively related to the child's self-concept. Crandall et al. (1960) believed that mothers who encourage independence and approval seeking, even when these were not actively sought, will produce autonomous and highly achievement-oriented children. High ability, achievement, and creativity were, therefore, associated with a supportive family environment.

Parental disagreement is disturbing to a child's intellectual and social development. Achieving females and their mothers tend to agree closely in terms of their self-perception. Fathers and mothers agree more strongly on family policy in homes which produce bright girls than in families with underachieving daughters (Shaw and White, 1965). Baragona (1964) found that homes with an authoritarian and a non-authoritarian parent tend to have children with the least degree of friendliness, sense of belonging, and same sex identification.

The orientation of the parent as viewed by the child can be important for personality adjustment. Parents of competent children are warmer and less restrictive to exploration. The parents are perceived as capable and confident by their children. Siegelman (1965) examined consistency between personality of college students and their views of early parent-child relationships. Students rated as possessing low anxiety and extroverted personalities recalled having loving parents. High anxiety and introverted students remembered rejecting and demanding parents. This study was repeated with sixth grade boys with similar findings. Cox (1970) investigated the relationship between a parent's ratings of his own affectional behavior, and his child's perception of it. An independent observer did the evaluation of the parent's responses. Cox, as well as Serot and Teevan (1961) found that a child's view of parental

warmth is more related to what the parent actually did than to the parent's report of his own behavior. The father left the strongest disciplinary impression on the children. The mothers' reports, however, were the most realistic as related to actual observed behavior. Cox also noted that a child's perception may be more related to his adjustment to parents' usual actions than to those which might differ in an immediate situation.

Parental attitudes may be influenced by the sex of a child. Bronfenbrenner (1961) found girls were likely to be overprotected. Girls were also established to be praised more frequently than boys. Rothbart and Maccoby (1966) suggested that mothers were more acceptant of comfort seeking from their daughters rather than sons. Straus (1967) examined the influence of the sex of a child and socio-economic level on an instrumental and expressive family position. Fathers were found to exercise more control over sons than daughters. Boys, however, maintained more powerful roles within the families than girls. Bronfenbrenner suggested that differences in treatment according to sex were the result of aspirations parents have for children. Independence, initiative, and self-sufficiency were especially valued for boys.

Bronfenbrenner (1961) analyzed socialization patterns according to economic level. He decided that as social class rises, direct discipline for girls decreases.

Socialization "risks" faced by each sex differed according to social class. Girls from lower-income homes may be the most sheltered. Lower-income boys may receive too little affirmative support and too much discipline. Lower-income boys, however, usually demonstrate better development in leadership potential, competitiveness, and levels of aspiration than do lower-income girls. If lower-income girls move upward on the socio-economic ladder, it is due mainly to someone acting on their passive state. Middle-income boys may incur over-socialization and lose some of their capacity for independent aggressive accomplishment. Middle-income girls may come out on top because they receive support, but not overindulgence or punishment. They also excel in responsibility and socially acceptable behavior.

The father is gaining increasing importance as a recognized influence in a child's development. Compton and Hall (1972) suggested that women perceive children more as a part of themselves than do men, therefore, they have greater ego involvement. Apparently, though, the coordinated interest of both parents produces a more well-adjusted child. Becker (1960) found that if the father's conception of his ideal relationship was loving, democratic, and emotionally mature, his child was rated by the mother as being better adjusted, outgoing, and less demanding. Freidman (1964) also indicated a father's understanding of his child's behavior was significantly related to social performance. Maxwell *et al.*

(1961) discovered interesting facts about father-child relationships. Fathers' ratings on a parental role performance scale, also completed by their children, indicated fathers were more interested in what their children were doing than their families had perceived them to be.

Kagan et al. (1961) investigated symbolic conceptualizations of parents among children ranging in age from 6 to 8 years. Both boys and girls agreed that the father, in relation to the mother, was stronger, larger, and more dangerous. Kagan and Lenkin (1960) found that children 3- to 8-years-old perceived their fathers as more confident and competent than their mothers. The same sex parent was chosen for a role model. Girls, although they indicated a desire to be like their mothers, at the same time perceived the father as wiser and stronger. Girls, therefore, may have an anxiety arousing identification model by perceiving themselves to be like the less competent of the two parents.

Fathers' physical absence or emotional neglect can have a significant impact on both boys and girls. Biller (1968) established that father-absence, which occurs most frequently in lower-income families made an impact on masculine development. Father-present lower-income boys made higher masculinity scores than did father-absent lower-income boys. Middle-income boys from both father-absent and -present groups, however, made the highest masculinity scores. Father-absence, when compounded with already present negative lower-

income variables must be responsible for the greater effect at this level. Girls from lower-income father-absent homes perceive a man's economic potential as a primary motivator for marriage. Girls whose identity with their fathers was weak expressed very low educational and vocational aspirations at all income levels (Griggs, 1968). Leichty (1960) pointed out an extremely important variable in terms of father absence. Adjustment problems were thought to be less acute in homes clearly broken by divorce than in families in which a father's absence and presence was intermittent over a long period of time. Children lock into patterns established during difficult readjustment periods. They become confused and have little identification with their father. A pattern of frequent family upheaval exists within many lower-income homes. Some of the lower-income homes identified as father-present for this study evidenced this characteristic.

Birth order within a family has been a topic of much discussion in child development. Studies do indicate that the order, spacing, and total number of children in a family can have bearing on intellectual, social, and physical development of a child. Clausen (1966) believed that first born children make better perceptual discriminations. Koch (1956) agreed with this position. He found that first borns learn to speak earlier and more precisely than later born children, and also have larger vocabularies during childhood.

Bossard and Ball (1956) thought that the first born may serve as a distinctive role model for later born siblings, especially those closely related in age. Sampson (1956) identified first born females as relatively more responsible, aggressive, and competitive than later born females. There is also evidence which indicates that birth order affects cognitive styles. First borns may be more oriented to synthesis, abstraction, determinism, and inner focus. Later born children tend toward analysis, non-deterministic thinking, and are more other directed (Harris, 1964). Lowest mental ability is evidenced, according to Nisbet (1961), by children in a large closely spaced family, with short mother and child interaction periods.

Rossi (1965) indicated that children of first born mothers tend to advance significantly further in school than children of later born mothers. There was little relationship between a father's birth order and educational attainment. Rosen (1964) determined that older mothers tend to be more warm and nurturant with their children than younger mothers.

Robhart (1957) attributed first borns' exceptional achievement levels to the more concentrated pressure from the mother. As family size increases, mothers' attention becomes more dilute. McArthur (1956) did not believe that the first born's accomplishments come from greater intelligence, but from more striving within a school setting.

McArthur felt that the first born, influenced closely by parental aspirations, became more adult oriented, conscientious, studious, and serious.

Gilmore and Zigler (1964) indicated that there may be some drawbacks to being the first born. These children were more dependent upon social reinforcement and support when placed in stressful situations. They probably reacted in this manner because they were so used to having one-to-one attention with the mother. First born children tend to receive the most direct punishment from parents.

School Effects on Socialization

In our country, the public school exists as a system, which occupies almost as important a socializing influence in a child's life as the family. Socialization may be defined as the process by which an individual learns the alternate modes of behavior available in various social settings and the consequences of adopting each mode (Glidwell, 1966). Schools in our country have been criticized for having two possible negative social functions (McGuire, 1950). These are to make certain only a minimum number of middle-class children decline in status and to recruit the necessary proportion of lower-class children into the middle-class ways of life. The social class which is in the majority within a school sets the values. Lower-class children in middle class schools tend toward middle-class values (Glidwell, 1966). Becker (1960) was concerned about the manner in which

children were limited by association to their particular socio-economic level. Ausubel (1958) predicted that the probable impact of this separation would be increasingly irreversible. The longer a lower-income child is deprived of daily contact with middle-income children, the less opportunity he has for acquiring their values and patterns of behavior. Heat Start perhaps has seen one of its greatest failures in its perpetuation of socio-economic isolation.

Swift (1964) stated that the lower-income child was forced to go with unreadiness for a smooth transition from family, school, and neighborhood into the social world of technical roles. Occupational choice during school years is strongly affected by a close identification with parents (Strahl, 1967). Identification has already been suggested to be at its weakest in the lower-class. Keller (1969) determined that low educational level of parents was most likely to be a detriment to the vocational aspirations expressed by children. The enrichment of a home increased educational goals. Discrepancies exist between occupational aspiration and plans within lower-income levels. When Stephenson (1955) asked lower-income children to state their actual plans for education and career, there was a marked decrease from desires to realistic goals. The problem of vocational planning for lower-income youth may not rest so much with raising levels of desired achievement. The need is to promote use of educational personnel and other social

resources to maximize chances for improved socio-economic status. Success for increasing performance of lower-income persons would, of course, depend on highly skilled counselors. The disadvantaged face an often self-perpetuating cycle of defeat. Some negative factors include circumscribed interpersonal relations, which limit contact largely to others of the same depressed socio-economic level or same racial or national origin, restricted mobility, lack of necessary rewards to develop appropriate coping behavior, deprivation of at least one parent, absence of successful and achievement oriented mothers, distrust for school and social agencies, poor academic facilities, and an unpleasant regard for work (Swift, 1964).

Some positive findings have been noted in relation to working with the deprived. Lewin et al. (1939) experimentally demonstrated the significance of the power of an adult leader of boys clubs to stimulate analogous work in the classroom. Horowitz (1962) found that when parents of underachieving boys were involved in a student's therapy, he showed greater improvement than boys with no parental involvement. Potential school dropouts are tied to their education in relation to the parental support given to school importance (Robbins, 1967). Parental participation in Head Start programs appears to aid the development of academic achievement. The higher the parental involvement, the greater the child's performance.

The teacher can play an important role in helping the lower-income child develop to exceed the expected levels of achievement. Bronfenbrenner (1965) discovered that the child's report of his teacher's behavior toward him showed a higher relationship to his value orientation in school than his report of his parent's behavior. The teacher's role is central in choosing appropriate equipment and materials, in planning presentation, and in adapting the program to the needs of the individual child and larger group. The teacher must have an understanding of developmental principles and the ability for recognizing readiness, as well as the capacity for presenting ideas in stimulating and constructive ways (Swift, 1964).

Teachers, in general, do reflect definite patterns of behaviors toward different types of children, however, and often miss the opportunity for influence. Relationships with the teacher are particularly important in affecting academic performance of boys. Lippett and Gold (1959) discovered that boys were most likely to have poor relations with their teachers than girls did. Parents, therefore, should be alerted to their responsibility for interacting with the teacher to improve her attitude toward boys (Schmuck and Van Egmond, 1965).

Lower-income children may also have difficulty in school, because 92 to 98 percent of all teachers are middle-class (Warner, Havinghurst, and Loeb, 1944). Hoehn (1954)

used the Anderson-Brewer Scale, which concerned communicative and integrative teacher behavior in observing teacher-pupil relationships. Lower-class children were found to receive as much teacher attention, but most of it was negative. Lippitt and Gold (1959) observed that low status boys often are aggressive and troublesome, so they evoke more criticism from the teacher than higher status classmates. Peisach (1965) presented data which suggested that differences in speech patterns between middle-class teachers and lower-class pupils may create a communications gap. Physical handicaps also tend to limit teacher acceptance for a child (Glidwell, 1966).

Torrance (1963) found not only lower-income children may be discriminated against by the teacher. He discovered that highly creative children are perceived as odd and receive less credit for group problem solving than their peers. Getzels and Jackson (1963) suggested this to be so, because highly creative children have less predictable acceptance of standard classroom procedures as well as adult norms. They tend to approach course work with their own individual aims which have meaning for them.

Teachers can help bridge the gap between themselves and children who are distinctly different from the average child. In a laboratory experiment, children who were praised most by the teacher were perceived as more competent by their peers, even though the recipients of praise were randomly

selected. Teachers' praise communicated to parents also influences parents' attitudes toward their children. Bronfenbrenner (1961) and Schmuck and Van Egmond (1965) saw that a positive relationship with the teacher was an effective way for socializing the child toward adult values. In classrooms where the teacher encouraged group participation in decisions the children heeded adult oriented moral orientations. Studies at Bank Street School in New York have suggested that equal distribution of teacher power and acceptance among children included more independence, flexibility of thought, more concern for social causation, and less stereotyping of the role conceptions by children (Minuchin, 1964). The teacher and her attitudes, therefore, can have a powerful influence over a child's school experience.

CHAPTER III

METHOD

Description of Subjects

The sample for this investigation consisted of 40 5-year-old children, as well as their mothers, fathers, and teachers. The 40 children were divided into equal groups of ten according to sex and income level. All subjects had both parents living in the home at the time of the interview.

The 40 subjects were to be randomly chosen. Ten 5-year-olds of each sex were to be taken from one Head Start Center and one middle-income preschool program. Designation of lower-income was given to Head Start children on the basis of financial stipulations made for admittance. Middle-income status was determined by teachers' reports of parental ability to meet fee requirements.

Complications were encountered which prevented achievement of a random sample. None of the Head Start Centers had 20 children from families which contained both parents. Some families did not consent to take part in this project. Parents, therefore, were chosen according to age of their child and willingness to answer questions.

In order to obtain 40 families with cooperating fathers, 5 centers were used. Three Head Start Centers were selected. These Head Start Centers were located in Dublin, Pulaski, and Giles County, Virginia. Two private centers in Pulaski and Pearisburg, Virginia provided the middle-income subjects.

The Dublin Head Start Center provided 4 boys and 3 girls. This center consisted of 15 children. Thirteen of these children were Negroes. Two were Caucasian. The head teacher was a Negro. She was the only non-white teacher included in the study. Seven of the 15 children had fathers in the home and all of these participated. Most of these seven families were located in the predominantly Negro community of New River, Virginia.

Four boys and five girls were selected from the Pulaski Head Start Center. This school operates with approximately 34 children. As many as half of these children had fathers in the homes, but the investigator was limited to nine families who were willing to donate their time.

The Giles County Head Start Center provided services for 40 children. Two boys and two girls were selected from the Giles County Center. They were the only children of desirable age who had fathers present in the home. Unlike the Dublin and Pulaski Head Start Programs, the Giles County Center has a director, plus a head teacher, for each age group of children.

The private Pearisburg and Pulaski preschools both

contained approximately 17 children. These children ranged in age from 3- to 5-years-old. The Pulaski center provided five girls and eight boys. Seven subjects were selected from the Pearisburg preschool: five girls and two boys.

The average age for all 40 children was 5 years, 2 months. The range of ages for the middle-income children, 5 years, 0 months to 5 years, 5 months, was not as great as that of 5 years, 0 months to 6 years, 3 months found for the Head Start group. There were 18 first born children among the 40 subjects. Five of these were middle-income girls, three were middle-income boys. The other ten were five girls and five boys from the Head Start Centers. For further description of subjects refer to Tables 1, 2, 3, and 4.

The teachers of the middle-income centers both had college educations. The teachers from the Heat Start Centers had high school diplomas. They also had credit for the required Head Start training courses.

Instrument

In 1966, Edward Knight collaborated with Edgar Doll to design the Preschool Attainment Record (PAR). This scale evaluates children in three different areas of functioning, Physical, Social, and Intellectual. These categories are divided into eight subgroups. The Physical portion includes Ambulation and Manipulation. The Social category encompasses Rapport, Communication, and Responsibility. The

TABLE 1

Description of subjects

Middle Income Girls

	Age	Center	Race
1.	5-1	Pulaski	Caucasian
2.	5-3	Pulaski	Caucasian
3.	5-5	Pulaski	Caucasian
4.	5-5	Pulaski	Caucasian
5.	5-4	Pulaski	Caucasian
6.	5-3	Pearisburg	Caucasian
7.	5-2	Pearisburg	Caucasian
8.	5-0	Pearisburg	Caucasian
9.	5-0	Pearisburg	Caucasian
10.	5-2	Pearisburg	Caucasian

TABLE 2

Description of Subjects

Middle Income Boys

	Age	Center	Race
1.	5-1	Pulaski	Caucasian
2.	5-1	Pulaski	Caucasian
3.	5-2	Pulaski	Caucasian
4.	5-2	Pulaski	Caucasian
5.	5-5	Pulaski	Caucasian
6.	5-5	Pulaski	Caucasian
7.	5-5	Pulaski	Caucasian
8.	5-3	Pulaski	Caucasian
9.	5-2	Pearisburg	Caucasian
10.	5-2	Pearisburg	Caucasian

TABLE 3

Description of Subjects

Lower Income Girls

	Age	Center	Race
1.	5-1	Giles County	Caucasian
2.	5-0	Giles County	Caucasian
3.	5-2	Pulaski	Caucasian
4.	5-11	Pulaski	Caucasian
5.	5-0	Pulaski	Negro
6.	5-0	Pulaski	Negro
7.	6-3	Pulaski	Caucasian
8.	5-1	Dublin	Negro
9.	5-1	Dublin	Negro
10.	5-1	Dublin	Caucasian

TABLE 4

Description of Subjects

Lower Income Boys

	Age	Center	Race
1.	5-3	Giles County	Caucasian
2.	5-2	Giles County	Caucasian
3.	5-8	Pulaski	Caucasian
4.	5-0	Pulaski	Caucasian
5.	5-2	Pulaski	Caucasian
6.	5-4	Pulaski	Caucasian
7.	5-1	Dublin	Caucasian
8.	5-0	Dublin	Negro
9.	5-0	Dublin	Negro
10.	5-0	Dublin	Negro

Intellectual area deals with Information, Ideation, and Creativity. Each of the eight subcategories contains fourteen items. Questions are scaled to reveal progressive development of children from 6 months to 8 years of age. The scale contains 130 items.

Placement of items on the PAR was determined in large measure by information on developmental maturation in preschool years (Doll, 1967). Edgar Doll, however, never gives the sources of his age norms. There is some duplication of items within and among behavior categories. Doll explains that he finds it difficult to itemize behaviors for global assessment. The organization of the scale is primarily for convenience of administration. Doll comments that clarifications of the item placement should be done. He also encourages further research.

The PAR has not yet been normatively standardized. According to Doll (1967), standardization is only of value when employed within a standard group taken from a random sample. Doll (1966) prefers, at present, to use his scale as a developmental, but not statistically verified, instrument. With this scale he can make comparative studies to help determine the further validity of the report system. He also feels for now his scale can be used for grouping and planning at the educational level.

The Preschool Attainment Record employs the interview technique. A person familiar with a child's typical

performance gives information to an examiner. The Preschool Attainment Record is particularly useful for children who are not directly accessible for testing because of sensory impairment, speech or language difficulties, emotional disturbances, neuromuscular problems, or resistance to examination procedure.

The interview approach to be used is out outlined in the manual. Item definitions are listed for each of the 130 behaviors, but specific questions are left up to the examiner. The interviewer must make some kind of standard procedure to keep from communicating varying connotations in different interviews.

Scoring is based on how completely the child fulfills the item definitions. One-half credit can be given for partial success. No method is provided for establishment of a basal or ceiling level of performance. The examiner must determine where to begin questioning. Since there are sixteen items per year and eight per six months, the Attainment Age value is obtained by dividing the total Raw Score of all 130 items by 16. A total Raw Score of 44, for example, becomes Attainment Age of 44 ÷ 16 = 2.75 years. The total Raw Score can be multiplied by .75 to obtain the Attainment Age in months. The Raw Score of 44 becomes 44 X .75 = 33 months. The Attainment Quotient is figured from this Attainment Age divided by the life or actual age. The quotient is then multiplied by 100. The Attainment Quotient represents the

performance level of ability for a particular child. The Attainment Age shows the age level at which he is functioning.

Procedure

Data for this study were collected in a two month period in the middle of the school year. Each teacher was well acquainted with all of the children. Times for interviews were worked out at the convenience of the parents and teachers. All interviews concerning one child were made within a two week period. A strong attempt was made to use the same type of questions for each interview. The examiner also tried to avoid placing any pressure on her subjects in order to eliminate fear of a "testing" situation. All responses were recorded on a standard record form.

A total of 120 interviews were collected, 40 with teachers and 80 with parents. A brief introduction as to the purpose and nature of the study was given before every interview. Questions of general information were asked, such as birth order and exact age. The examiner then moved to explore each category. Leading questions, which could be answered yes or no, were avoided. Examples of interrogation would be, "How well does the subject run?" "How well does he paint?" As much elaboration on the child's usual behavior was encouraged from the interview subject as was possible. Most of the interviews lasted far longer than the 20 minutes Doll suggests the scale can be completed in. Most

parents talked extensively about each item. Many seemed to appreciate the opportunity to communicate with someone about their child.

The examiner observed each child in the preschool setting previous to the interviews with the teacher and the parents. Some of the children were also seen at home, especially in evening visits. Direct contact with the child helped the examiner to determine whether the Preschool Attainment Record was accurate. The examiner scored all of the scales after each interview. All scales were rescored from the Raw Score and age on the computer by an independent rater. A repeated measurement design was used for analysis of data. The repeated measurement design is a multivariate statistical analysis procedure applicable when some subjects are measured repeatedly over time by several measuring instruments. This is a standard technique found in multivariate statistics textbooks.

CHAPTER IV

RESULTS AND DISCUSSION

Results

All Preschool Attainment Record (PAR) raw scores were coded and tabulated by computer, which gave Attainment Quotients (AQ) for mothers', fathers', and teachers' ratings for lower-income boys and girls (Table 5) and for middle-income boys and girls (Table 6). Total scores for Social, Physical, and Intellectual Categories were also figured. A repeated measurement design was used to test for significant differences between AQs as wellas total Intellectual, Social, and Physical Category scores for mothers, fathers, and teachers. No significant difference was found between the mothers', fathers', and teachers' AQ scores ($p > .10$). Means were computed and compared for variation between mothers', fathers', and teachers' Intellectual, Social, and Physical Category scores. A significant difference was found between mothers', fathers', and teachers' ratings for Intellectual and Social Category scores for lower-income boys ($p < .10$)(Tables 7 and 8). No significant difference was found for the Physical Category scores (Table 9). Mothers' category scores tended to be the highest in all groups.

TABLE 5

Attainment Quotient Scores

Group	Mothers' ratings	Fathers' ratings	Teachers' ratings
Lower income girls N=10	125 127 125 118 108 121 103 117 128 114	124 130 126 110 115 128 97 121 122 106	133 126 124 112 98 132 94 115 122 109
Lower income boys N=10	93 121 111 127 106 119 117 99 105 111	97 121 107 121 101 123 108 97 104 109	93 114 100 125 95 120 124 85 107 111

TABLE 6

Attainment Quotient Scores

Group	Mothers' ratings	Fathers' ratings	Teachers' ratings
Middle income girls N=10	122 130 123 127 125 123 128 122 129 119	129 130 123 123 122 125 132 123 129 116	118 131 121 123 118 124 132 115 132 121
Middle income boys N=10	127 121 125 129 126 118 121 128 122 130	126 124 123 129 123 119 126 128 120 122	127 121 113 125 130 123 120 123 115 126

TABLE 7

Comparison of Intellectual Category Score Means

Group	Mother	Father	Teacher
Lower-Income Girls N=10	44.6	43.6	42.9
Lower-Income Boys* N=10	43.2	42.0	36.7
Middle-Income Girls N=10	47.2	47.3	46.5
Middle-Income Boys N=10	47.5	47.5	45.9

*$\underline{p}$ = <.10

TABLE 8

Comparison of Social Category Score Means

Group	Mother	Father	Teacher
Lower-Income Girls N=10	43.7	42.2	43.2
Lower-Income Boys* N=10	38.9	36.3	30.3
Middle-Income Girls N=10	46.9	46.3	45.6
Middle-Income Boys	45.8	45.2	44.4

*$\underline{p}$ = <.10

TABLE 9

Comparison of Physical Category Score Means

Group	Mother	Father	Teacher
Lower-Income Girls N=10	31.9	31.4	30.4
Lower-Income Boys N=10	28.8	28.5	26.4
Middle-Income Girls N=10	31.2	31.9	31.1
Middle-Income Boys N=10	31.7	33.6	31.0

AQ score means for mothers, fathers, and teachers were grouped and analyzed for differences between the five centers used in the study. The coefficients of variation for mothers' AQ scores were highest in agreement in all centers except for Pulaski Head Start. At that center, there was very little difference in mothers', fathers', and teachers' coefficients of variation (Table 10). The means from AQ scores for the two middle-income preschools (Tables 13 and 14) and Giles County Head Start (Table 12) indicated similar coefficients of variation for fathers and teachers. Mothers and fathers were in closer agreement than the teacher was with either at the Dublin Head Start Center (Table 11).

Mean AQ scores for mothers, fathers, and teacher were considerably lower for the Pulaski Head Start Center than for any of the other preschools (Table 10). This was probably true because this center contained four obviously handicapped children. Only one other child in the study, besides these four, had an AQ of below 100. He was a member of the Dublin Head Start Program (Table 5). Giles County and Dublin Head Start AQ means for mothers, fathers, and teachers were relatively close in agreement (Tables 11 and 12). They were both lower than AQ means for the middle-income children (Table 13 and 14). The AQ means were highest for children in the Pearisburg Center.

The range of AQ scores was largest for teachers' ratings in four centers. Fathers showed a slightly greater

TABLE 10

Analysis of Attainment Quotient Means

for Pulaski Head Start

Group	Mean	Standard deviation	Low	High	Coefficient of variation
Mother	109	11.16	93	128	10.17
Father	108	10.95	97	122	10.05
Teacher	104	12.23	85	122	11.75

TABLE 11

Analysis of Attainment Quotient Means

for Dublin Head Start

Group	Mean	Standard deviation	Low	High	Coefficient of variation
Mother	120	8.43	106	127	7.02
Father	118	10.43	101	130	8.98
Teacher	117	14.32	95	133	12.18

TABLE 12

Analysis of Attainment Quotient Means

for Giles County Head Start

Group	Mean	Standard deviation	Low	High	Coefficient of variation
Mother	116	4.19	111	121	3.59
Father	113	9.53	108	128	8.38
Teacher	119	10.10	111	132	8.59

TABLE 13

Analysis of Attainment Quotient Means

for Pulaski Middle-Income Center

Group	Mean	Standard deviation	Low	High	Coefficient of variation
Mother	123	3.70	118	129	2.73
Father	123	3.92	116	129	3.17
Teacher	120	4.10	113	127	3.42

TABLE 14

Analysis of Attainment Quotient Means

for Pearisburg Middle-Income Center

Group	Mean	Standard deviation	Low	High	Coefficient of variation
Mother	127	2.51	123	130	1.96
Father	126	3.98	122	132	3.16
Teacher	126	3.86	123	132	3.00

difference in AQ score range in the Pearisburg middle-income center (Table 14). Mothers in four centers had the least distance between low and high AQ scores. Fathers in the Pulaski Head Start Center had a slightly lower range than mothers (Table 10).

Differences between mothers', fathers' and teachers' ratings for AQ score means of first and later born children were not significant. Coefficients of variation revealed higher agreement between mothers' and fathers' scores than with teachers' for both first and later born children. The number of first and later born children was closely divided. There were 18 first born children and 22 later born (Tables 15 and 16).

Discussion

Results of statistical analysis do not indicate any significant difference between mothers, fathers, and teachers as sources of ratings on the PAR for both boys and girls of lower- and middle-income backgrounds. This outcome cannot be used to make broad generalizations, because the sample was not randomly selected. The significant difference in Intellectual and Social Category ratings for lower-income boys is too slight to provide strong evidence that the teachers and parents vary in their ratings of children. This is contradictory to the findings of John Blair (1970) and Donald Stedman (1969). They both found significant differences between mothers' and teachers' PAR AQ ratings, for boys

TABLE 15

Birth Order Analysis for Attainment

Quotient Score Means

Group	Mean N=18	Standard deviation	Low	High	Coefficient of variation
First Borns					
Mother	119	9.84	93	130	8.26
Father	118	11.10	97	130	9.37
Teacher	117	12.29	93	132	10.44

TABLE 16

Birth Order Analysis for Attainment

Quotient Score Means

Group	Mean N=22	Standard deviation	Low	High	Coefficient of variation
Later Borns					
Mother	120	8.48	99	128	7.05
Father	119	9.21	97	132	7.71
Teacher	117	11.91	85	133	10.16

($p<.05$). Only the difference in Intellectual and Social Category scores for lower-income boys in this study tends to support the previous research. Both Blair and Stedman used lower-income subjects and only mothers' and teachers' ratings. Although each parent in this study was interviewed separately, perhaps mothers' responses became more realistic, because they knew fathers were to be questioned. Head Start families with both parents in the home may also vary greatly from those with only one parent. The teachers in several instances remarked that they could see differences in school performance for children who had intact families.

The distinct similarity of means by center could indicate a high degree of parent and teacher exchange about children. All five centers professed to emphasize parent meetings and conferences. The likeness of AQ scores by center, however, could be used as further evidence that mothers, fathers, and teachers are each adequate sources for PAR ratings.

In the light of research cited in the review of literature, it is important to consider why AQs did not differ significantly for first and later born children. There were limitations to the evaluation of first born and later born scores. No attempt was made to consider sex, spacing, placement, and income level of the first or later born children. Analysis of these factors might be necessary for determination of birth order's influence on AQ scores.

Limitations and Recommendations

In addition to the general disadvantages of the rating scale technique discussed in the review of literature, there are limitations within this research project. The results of this study cannot be used to make broad generalizations because the subjects were not randomly selected. The sample for this project was the largest which has been used in PAR research. The sample was hindered, however, by vague definitions of income level and by the use of a large number of centers and teachers.

The PAR needs to be analyzed especially for validity of content. Doll (1967) never gives the sources of his age norms. He, for example, lists "rides a vehicle" as a 7-year-old behavior. He defines the vehicle as a "bike, trike, skate board, or scooter." This perhaps should be considered more of a 4- or 5-year-old behavior, since most children can ride a tricycle by the age of 3.

The PAR needs to be standardized. This present research involved only a limited number of subjects in comparison to the large sample necessary for standardization. Until the PAR is standardized, it will not be widely accepted as a significant method for evaluation of young children. At present there is no norm to which an examiner can compare an AQ score. An AQ score of 130 is meaningless unless there is some base data to relate it to.

Further research could include interviews at the

beginning and end of a school year to compare scores for consistency. This might reveal whether results on the PAR are the product of fixed opinions about children, or whether the attitudes of the person interviewed really change as the child acquires new skills. Another study could rate Attainment Quotients and Intelligence Quotients from a standardized intelligence test. Most of the children in this research scored well above the 100 considered average on most intelligence tests. Relating AQ scores with intelligence test results could give an idea as to how PAR scores can be interpreted.

It might also be interesting to compare mothers and teachers of Head Start children with and without fathers in the home. From the basis of how teachers referred to children in conversations with this examiner, children without fathers would be rated lower by teachers than those with fathers. This idea could be carried out with middle-income subjects as well. Perhaps father-absence is not as obviously detrimental at middle-income levels. Another study could follow up predictions made by the PAR to see if actual school performance proved to support the PAR indications of school readiness. Results from the PAR could also be compared to the Denver Developmental Screening Test. This measure contains 142 items, but only about 20 are actually involved in study of one child. This instrument evaluates motor, language, and social skills from observation of the

child. The Denver Test is similar to the PAR in content and is in wide use with children.

CHAPTER V

SUMMARY AND CONCLUSIONS

Summary

The purpose of this study was to examine differences and consistencies found by comparison of teachers', mothers', and fathers' ratings of 5-year-old children on the Preschool Attainment Record (PAR). Results of the PAR are given in terms of Attainment Quotient (AQ). The AQs and Category scores of Intellectual, Social, and Physical functioning were analyzed by a repeated measurement design. AQs were gathered from interviews with 40 teachers and 80 middle- and lower-income mothers and fathers. No significant difference was found to be present in AQ scores between mothers', fathers', and teachers' ratings. Analysis of Category scores revealed that there was a significant difference for Intellectual and Social scores between parents and teachers of lower-income boys ($p < .10$), This finding is the only evidence which supports the previous research done by John Blair (1970) and Donald Stedman (1969). Their studies indicated that mothers rated male children significantly higher than did the teachers. Both of these researchers used low-income children for their subjects and did not question

fathers.

Birth order was not found to differ for first or later born children's AQ score means. The review of literature suggested that first born children receive most parental pressure for performance. This research paper attempted to prove this by comparing scores by birth order. The lack of significant difference may be due to the limitations within the analysis of scores. No considerations were made for sex, spacing, or income level in relation to a child's specific order of birth.

Means of AQ scores for mothers, fathers, and teachers were grouped and compared for each of the five preschools used in this project. No difference was found between the three mean AQ scores for each center. Each center demonstrated close agreement of mothers', fathers', and teachers' scores. Pulaski Head Start's AQ score means were the lowest. The Pearisburg middle-income center's AQ score means were the highest.

Conclusions

The results of this study are not in substantial agreement with the previous research of John Blair (1970) and Donald Stedman (1969). The structure of this study, however, was different from those done before. The sample of 40 children was larger than those used by Blair and Stedman. Fathers' ratings were used for the first time. Middle-income and

lower-income parental ratings had never been compared on the PAR. It is important to note that mothers and fathers agree on their children's behaviors and that middle-income parents and teachers rate their children higher than lower-income parents. It is important to observe that the findings, contradictory to Blair and Stedman, open up the PAR to more question. On the basis of this research, teachers cannot conclusively be looked upon as more reliable raters than mothers and fathers. The teacher, however, may serve as a strong influence on parent's ratings of their children. The teacher at the Pulaski Head Start Center, where scores were lowest, appeared to have a very poor attitude about the learning potential of her children. The teacher at the Pearisburg Center had an extremely positive outlook on her children's capacities. This center's scores were the highest. The similarity of scores by center also suggested that the mother, father, or the teacher can serve as adequate sources for PAR interviews. This research does not answer, however, whether PAR scores are reliable or valid for estimators of school success or indicators of any specific handicapping condition, which is not readily obvious from brief observation.

There are indications that methods of preschool evaluation of wider scope than the PAR may become more useful for future research and assessment in child development. Rating scales such as the PAR, though, can provide an initial basis

for analysis of a child's abilities. The examiner can learn many important facts about a child in an interview other than that which is specifically covered by the PAR questions. In interviews with the mother, father, and teacher, an examiner can gain insight into some of the feelings and thought of the three most important influences in a child's life.

Rating scales have previously mentioned limitations. Starr (1972) suggests that researchers expect too much of scales. He believes rating scales provide only a partial index of performance. The PAR might be used for preliminary evaluation in conjunction with other evaluative measures. Starr thinks perhaps a battery of tests by a skilled clinician could be a fair system for following up indications of handicaps given by scales such as the PAR. Starr also mentions that efforts are now being made to study behavioral systems. With longitudinal studies begun in infancy, interactions of a constellation of behaviors are evaluated. Gordon (1972) has developed a three-dimensional matrix of social and emotional variables. These encompass the environment, a particular behavior, and the extent of a behavior's expression. Environmental variables include responses within strange and familiar surroundings and reactions to unknown and known adults. Behaviors include exploration, manipulation, initiative and avoidance. Responses are evaluated according to neurality, hedonic tone, such as happiness or sorrow, range of expressiveness, level

of intensity, and consistency of a behavior.

Baldwin and Baldwin (1973) have also developed other innovative ideas for assessment of children. They believe that direct observation of a child in a variety of settings can give the most well-rounded picture of functioning. The researcher would determine all settings, in which a child interacts, and would observe him in each of these. Baldwin and Baldwin use observational episodes for recording behaviors. Episodes are long sequences of behavior. These are divided into units. Each act or utterance of a child is considered a unit. Every unit is coded according to its content. A computer program called Verbal Information Exchange (VINEX) is employed for coding and categorizing a child's interaction with his environment. The computer program is written in a special interactional language which captures the meaning of an action rather than the actual words. Use of the computer could open up the field of research involving children because such a wide dimension of behaviors could be measured and related.

Perhaps the most important conclusion of this research study could be the recognition that there will be a constant growth in sophistication of evaluative methods used in child development research. The Preschool Attainment Record is only a small factor in a wide spectrum of existing ways of examining children. Further research and time will prove whether the PAR is of value as one tool for assessment in the study of child development.

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A COMPARISON OF PRESCHOOL ATTAINMENT RECORD RATINGS BY PARENTS AND TEACHERS OF FORTY FIVE-YEAR OLD LOWER- AND MIDDLE-INCOME CHILDREN

by

Polly Miller Ashelman

(ABSTRACT)

Preschool Attainment Record Attainment Quotients and Category scores were compared to determine whether there were significant differences between the way parents and teachers evaluate 5-year-old children. The subjects were 20 Head Start and 20 middle-income children as well as their mothers, fathers, and teachers. A total of 120 Preschool Attainment Record interviews were collected, 40 with teachers and 80 with parents. Attainment Quotients and Category scores were calculated by computer.

A repreated measurement design was used to test for significant differences in Attainment Quotient and Intellectual, Social, and Physical Category scores. No significant differences were found for mothers', fathers', and teachers' Attainment Quotients. There was a significant difference between parents' and teachers' ratings for Intellectual and Social Category scores for lower-income boys.

Attainment Quotient means were grouped and analyzed for differences in ratings within and between the five pre-school centers used in the study. Attainment Quotient means were highest in the two middle-income centers. Attainment Quotient means were also compared for first and later born children. No significant difference existed between ratings by mothers, fathers, and teachers.