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VARIATIONS IN LEVELS OF ASPIRATIONS OF CHILDREN GROUPED BY CLASS, RACE, SEX AND GRADE LEVEL

by

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Approved by

Irwin V. Sperry
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The objective of the present study was to investigate the levels of aspiration of children and discrepancy between their levels of aspiration and performance on two somewhat different tasks when the children were grouped by: (a) middle-and lower-classes; (b) white and Negro races; (c) males and females; and (d) three grade levels.

The operational measurement of level of aspiration was accomplished by using a physical task, a ring-toss game, and an intellectual task, spelling. In the investigation, children were asked to state how many of ten rings they would like to throw onto a peg and how many of ten words they would like to spell correctly. The response given by each child for each task was recorded as his level of aspiration. Following responses for both task questions, the child was asked to perform on the two tasks. The difference between the level of aspiration set by the child and his performance score provided a discrepancy score for each child.

Subjects were children enrolled in the second, fourth and sixth grades in ten elementary schools in Greensboro, North Carolina. Schools were randomly selected after they had been stratified as predominantly white and Negro in enrollment. Each child was classified according to his sex, race and grade level from cumulative folders and teachers' records and class position was determined by the head of the household's occupation. A total of 2, 741 children were classified into combination categories and

ten children were randomly selected from each category. Two hundred and forty children comprised the sample.

The analysis of variance, fixed treatments model with multiple classification of subjects, was the statistical test employed for analyzing the data. The F value for all main factors and interactions was computed. The .05 level of significance was the criterion for making the decision about rejection or retention of the null hypothesis.

The hypothesis that middle-and lower-class children would differ in levels of aspiration was not supported by the findings on either the physical or intellectual tasks except when the variable of sex was combined with the class variable on the physical task. Significant differences were found, however, in performance and discrepancy scores on the intellectual task. Middle-class children performed higher than lower-class children and lower-class children had higher discrepancy mean scores than middle-class children.

The hypothesis that white and Negro children would differ in levels of aspiration was not supported by the findings on either task. Significant differences were found between the races, however, in performance and discrepancy scores. White children performed significantly higher than Negro children on the intellectual task. White children had higher discrepancy scores than Negro children on the physical task, whereas on the intellectual task, the Negro children had higher mean discrepancy scores.

It was inferred that boys and girls would differ in their levels of aspiration according to the type of task. On the physical task, the

boys were found to aspire and to perform significantly higher than girls, whereas for the intellectual task the same finding was not true. On the intellectual task the girls performed higher than the boys. The mean discrepancy score for boys on the intellectual task was more than twice as high as the mean discrepancy score for the girls.

It was hypothesized that differences in levels of aspiration would be found between children in different grade levels. This hypothesis was supported on the physical task but not on the intellectual one. As grade level increased, level of aspiration progressively increased for the physical task. Significant differences were found in performance and discrepancy scores on the intellectual task. Second graders performed lowest and sixth graders performed the highest. The hypothesis that discrepancy scores would decrease with increased age (or grade level) of children was supported for the intellectual task but not for the physical task.

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Particular mention is made of the writer's husband, Richard H. Foster, for his patience, understanding, and continual encouragement, and the writer's children, Rick and Amanda, for their acceptance.

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CHAPTER I

INTRODUCTION

The way a person evaluates his performance or accomplishments appears to be related to his "absolute" performance or accomplishment relative to some established criterion and to what he accomplished relative to what he would like to have done or what he thought he should have done. The term "level of aspiration" has been used to refer to how a person would like to perform or to what he would like to accomplish (Lewin, Dembo, Festinger & Sears, 1944, p. 333).

Children, apparently, evidence aspirations fairly early in life (Baldwin, 1955, p. 148). The refusal of assistance and the expression, "I want to do it myself," is familiar to anyone who has had experience with young children. Familiar also is the disappointment evidenced by persons of all ages who have performed competently relative to some criterion, but who have fallen short of what they would like to have done. It is apparent that patterns of aspirations are evidenced in young children (Anderson, 1940). For example, Sears and Levin (1957) demonstrated that when young children are in relaxed and permissive conditions they will aspire to levels which tend to assure them maximal success. Atkinson (1958, p. 338) stated that children may at times aspire to levels to assure success and in other situations may aspire to levels to avoid failure when the situation is evaluated by some standard of

excellence. These findings suggest that persons who influence children significantly, particularly parents and teachers, probably also influence the setting of the level of aspiration for the child. That persons can be influenced by others and that the person evaluates his performance in terms of the levels of aspirations communicated to him by those other persons around him has been shown in several recent investigations (Stotland, Thorley, Thomas, Cohen, & Zander, 1957; Stotland & Zander, 1958).

Behavior in level of aspiration situations, e. g., following instructions and accepting results, which characterize adult subjects are also evidenced in young children. Jucknat (1937) found that eleven-year-old children had aspiration patterns similar to adults although they may not aspire to the same goals. From this evidence, it would appear that the development of level of aspiration seems to occur by the elementary school years. Most studies of young children have not included data for various developmental levels, hence the need for a study such as the present one.

Other questions needing exploration relate to how levels of aspiration vary for children of different sub-cultural groups of which the child is a member or to which he aspires to become a member. Jessie Bernard (1964) stated that children from lower-class Negro families have not been reared in the Protestant Ethic, which she views as characteristic of industrialized societies. She indicated that cliches such as "Hitch your wagon to a star," "The goal should always exceed the reach" and "A penny saved

is a penny earned" are associated with a character type which emerges from families whose values reflect the Protestant Ethic. Bernard contends that this character structure is essential to persons in an industrialized society such as our own. However, McCandless (1961) cites evidence which conflicts with the stereotypic picture that lower-class children do not aspire to improve their present status to one which is characteristic of the Protestant Ethic. The paucity of research concerning lower-class children's levels of aspiration and the fact that there is virtually no research on aspirations of young Negro children indicate a great need for more adequate comparative knowledge about these variables.

With the great amount of attention which poverty is receiving currently and in view of the relevance of aspirations, it would appear that information is essential regarding the variations in aspiration with regard to factors such as economic class, age, race and sex. It was with this general problem that the present study was concerned.

Statement of the Problem

More specifically, the levels of aspiration and performance of children on two somewhat different tasks were investigated with the children grouped by: (a) middle and lower classes; (b) white and Negro races; (c) males and females; and (d) three grade levels.

Significance of the Problem

It was believed that the findings regarding levels of aspirations of

children, which they have set for themselves, might have implications for teachers, parents, and other persons who work with children. A knowledge of the variations by class, race, sex and grade level which children bring to task situations might contribute to increased understanding of development and training of children and might help in understanding the relationships existing between the variables in the child's background and his level of aspiration and performance in relation to these aspirations.

Definitions of Terms Used

Variations in term usuage has been found in the literature on levels of aspiration. For clarity, the following definitions were used in the present study.

Level of Aspiration. "Level of aspiration" denotes the personal goal which a child sets for himself when asked what he would like to do in two goal-striving situations.

Performance. Performance is the absolute score which the child attained when given an opportunity to act in two tasks.

Discrepancy Score. The discrepancy score is the difference between the level of aspiration score set by each child and his performance score.

Class. The term "class", as used in many investigations, refers to persons with common social and economic characteristics. It is used in the present study to denote the middle or lower position into which each child has been categorized when scored by the head of household's occupation.

Grade Level. "Grade level" has been used to denote the grades which children have attained in the public elementary schools. It has reference, for this study, to the second, fourth and sixth grades.

In the review of literature which follows, terms will be presented as the authors used them. Where the above terms are used in hypotheses, discussion of findings and the like, the above definitions will be employed.

CHAPTER II

REVIEW OF LITERATURE AND DEVELOPMENT OF HYPOTHESES

Historical Perspective

The concept of "aspiration" or "level of aspiration" has been in the literature for a long time and has been invoked in a variety of studies of motivation, individual differences, attitudes, learning and decision making. Information from Gardner (1940) and Lewin, Dembo, Festinger and Sears (in Hunt, 1944) described the use of the term "level of aspiration" and indicated that the term Anspruchenivеau was first introduced into the literature by F. Hoppe in a French psychological bulletin in 1930. Gardner (1940) suggested that the term gained widespread usage following the publication of Kurt Lewin's book, Dynamic Theory of Personality (1935). The term and article by Hoppe (1930) were translated into English by Lewin. Hoppe (1930) has been credited with having performed the first formal experiment on the phenomenon of aspiration. The experiment involved the tossing of rings onto hooks by subjects who were standing on a moving belt. Hoppe (Lewin et al., 1944) reported that subjects who had placed the maximum number of rings onto the hooks did not necessarily express more satisfaction with success than those subjects who had placed a fewer number of rings onto the hooks. Gardner (1940, p. 59) concluded that Hoppe's experiment showed: (a) experience of success and failure in a situation where the subject aspired to some level

depended on whether the subject obtained the goals which he personally had set; (b) subjects shifted levels of aspirations in relation to the goal success which they experienced; and (c) shifting of aspiration levels, in relation to goals set, were related to individual differences.

Lewin (1944) credited one of his students, Tamara Dembo, with formulating the concept of level of aspiration. Dembo (1931) was studying children in circumstances where they were frustrated to the point of anger. While doing this research, she observed behavior which Lewin labeled "level of aspiration," by which he referred to goals which the children sought.

Subsequently, other students of Lewin studied goals both as phenomena in themselves and the effects of attainment or non-attainment of these goals upon the behavior of the individuals.

Early studies indicated that level of aspiration referred to a particular goal for which the individual strived. The concept was employed in reference to goal-striving behavior manifested when the individual was presented with a task, and the outcome was measured on an achievement scale.

Early in the 1940's many studies followed which investigated experimentally the concept of level of aspiration. Gould (1939) summarized the studies conducted up to that point, and two years later, Frank (1941) provided another review. J. B. Rotter (1943), a researcher in personality, published a critical review of the methodological aspects of level of

aspiration research. One of the first theoretical explanations of level of aspiration was found in an article by Lewin, Dembo, Festinger and Sears (1944). They proposed that an ideal goal and an action goal were distinguishable conceptually and that the two might or might not be identical when performance or behavior of the individual was the criterion. The concept of an "ideal goal" presupposed that an internalized goal existed and that it might or might not be measurable. The "action goal" was taken as the criterion for level of aspiration. They further reported that within a whole goal structure a person could conceivably have many realistic goal levels.

Many of the early studies were concerned with the shifting of selected goals during a person's performance and the effects of success or failure on task achievements. Child and Whiting (1949, p. 314) analyzed the ramifications of the early studies and formulated five generalizations which seemed to have been supported by research findings.

1. Success generally leads to a raising of the level of aspiration, and failure to a lowering.
2. The stronger the success, the greater is the probability of a rise in level of aspiration; the stronger the failure, the greater the probability of a lowering.
3. Shifts in the level of aspiration are in part a function of changes in the subject's confidence in his ability to attain goals.
4. Failure is more likely than success to lead to withdrawal in the form of avoiding of setting a level of aspiration.
5. Effects of failure on level of aspiration are more varied than those of success.

Until about 1950, there was a paucity of research concerning level of aspiration. In the past decade, however, the frequency of level of aspiration research has increased, and the focus of research interest has

shifted considerably. As the concept of level of aspiration continued to be used, many theorists and researchers attempted to link it both to goals per se and to attributes of goals such as their attractiveness or valence. Escalona (1948), in an experimental study, asked subjects to choose one particular task which they desired to undertake from a series of twelve puzzles scaled in difficulty. The subject's success and/or failure in the task situation was produced artificially through timing on the first five choices he made. She found that correlates in personality maladjustments of children could be made for some level of aspiration behavior. She also concluded that other conditions affecting personality functioning, such as planning, emotional involvement, group presence, might influence level of aspiration behavior. Escalona hypothesized that goals would have an attractiveness for children which depended in part on the perceived attributes of the goals and in part on the personality needs of the individual. The theory is referred to as a "Resultant weighted valence" of level of aspiration.

McClelland, Atkinson, Clark and Lowell (1953) in the formulation of a theory of motivation employed the concept of level of aspiration. One of these writers (Atkinson, 1958) devised a model for level of aspiration studies which extended Escalona's theory. Atkinson made more precise conceptual distinctions. He indicated that motives which the person possessed were different from the rewarding or punishing properties of specific goals. The motive was to achieve success or to avoid failure and

were functions of the personality rather than the goal.

Another theoretical model appeared at about the same time as that of Atkinson. The late Sidney Siegel (1957), referring to Lewin's work, proposed that aspirations are formulated with regard to the utility which the goals possess for the individual. The term utility was used to "refer to the subjective value of an entity (goal, action, object) as distinguished from its objective or 'face value'" (Siegel, 1957, p. 257). The conclusion from the research indicated that behavioral theory of decision making "should include not only concepts of utility and subjective probability as do present models, but should also include a formation of the effects of level of aspiration and reinforcement on utility. That is, the model should include recognition that utility has a model in its own right, in which the main concepts are level of aspiration (LA) and reinforcement effects (R)" (Siegel, 1957, p. 261).

Grinder (1958) attempted to clarify the concept of level of aspiration by differentiating aspirations, expectations, and the individual's employment of defense mechanisms. According to Grinder, aspiration was the factor which occurred until the subject was able to perform some task. In the learning curve, aspiration appeared to exist until reaching the asymptote; after performance, the subject shifted from aspiration to expectation as he had knowledge of his performance ability. Expectation, Grinder concluded, was involved hereafter in the theoretical explanation, and defense mechanisms were brought into play to account for results in

performance.

No attempt has been made to present a detailed theoretical, conceptual analysis of the projected theories of level of aspiration. Differences in theoretical approaches and empirical findings have prevailed in the literature regarding level of aspiration. However, from the literature reviewed, some evidence of convergences and partial agreement among theorists was apparent.

Recent research has become markedly more specific in attempting to explain the level of aspiration phenomenon. Researchers have employed subjective evaluation devices and generally the research in the area has been related to vocational and educational plans or aims of individuals.

Level of Aspiration and Class

Differences in child-training procedures of the two major social classes, usually defined as middle-and lower-class in the United States, have been reported by several investigators (Davis and Havighurst, 1946; Hollingshead, 1949; Sears, Maccoby & Levin, 1957). Bronfenbrenner (1958) attempted to resolve the conflicting findings of these studies and compared the findings which related to child-rearing and class. One of his conclusions, particularly applicable to the present study, was that middle-class parents expected more in the way of achievement of their children than did lower-class parents and gave more emphasis to early independence training than did lower-class parents. Douvan's (1956)

findings were in agreement with this generalization. She concluded that the patterns of achievement which a child has learned and developed were related to the class sub-culture in which he was trained. A recent research monograph (Deutsch, 1960) explored in detail the complex of social and personality factors related to school achievement among lower-class urban children. Social factors, such as material deprivations, family instability, practices of child-rearing, and more subdued psychological inherents of low status, were reported to have created serious learning problems for both lower-class Negro and lower-class white children.

The studies reported have been concerned primarily with class as a variable related to the training or achievement of children. Of the studies which considered level of aspiration in relation to class, most subjects were derived from the adolescent period of development. Generally, in the findings from research, the subjects from all social classes have been found to aspire to higher levels, or higher goals, than they had attained (or that their parents had attained). Specifically, the studies tended to have been focused on: (a) whether adolescent's aspirations of mobility were related to the status of the father; and (b) whether place of residence was related to aspiration levels. Douvan and Adelson (1958) studied 14 - 15 year-old boys from three strata and found that from either group the boys aspired to positions and social class status higher than their fathers had attained. Rosen (1956) studied high school male

subjects and found that the upper-class students had the higher aspirations and also had the higher need for achievement. Lower-class male high school students were reported by Empey (1956) to have aspired to lower occupational levels than had students from upper-and middle-classes.

When class was ascertained by residential location, aspiration levels seemed to differ in direction. In a study of Michigan high school senior boys, Youmans (1956) reported that urban boys had higher aspirations than rural boys. Sewell, Haller and Murray (1957) found no difference in educational and occupational aspirations of high school seniors who were reared on the farm and those who were not, when intelligence was controlled. Among subjects who lived in Florida, Gregg and Middleton (1960) found support for the hypothesis that level of aspiration for males was directly related to the size of the community; this was not true for females. Urban boys in Gregg and Middleton's study had higher aspirations than rural boys.

Level of Aspiration and Race

The American Council on Education sponsored and published research (Davis & Dollard, 1940; Frazier, 1940; Johnson, 1941; Warner, Junker & Adams, 1941; Sutherland, 1942) concerning Negro personality development and attempted to answer the question "How does the fact of being born a Negro affect the developing personality of a boy or girl?" Their studies reported that the American Negro child grew up learning that his race was considered inferior and that he was assigned to an

unfavorable status within the American culture pattern. This finding suggests that Negro and white children are exposed to different socialization settings. Although it is not clear what the relations (with different social settings) would be to level of aspiration, it seems clear that some differences do exist.

In this country, many ethnic groups of minority status have expressed that discrimination has been directed toward them. The Negro group has expressed this with street demonstrations and "sit-ins". As early as 1937 in a book by Dollard, Caste and Class in a Southern Town, he indicated that the Negro citizen belonged to a lower-caste in the South and was the recipient of economic and social discrimination over the entire United States.

Several researchers have specifically linked race and minority group status to level of aspiration. Recently, Rosen (1959) examined the motivations, values, and aspirations of six racial and ethnic groups. He used adult subjects and attempted to explain their dissimilar mobility rates. The findings showed that different groups placed different emphasis on independence and achievement training of their children. Rosen's findings which specifically related to the present study were that: (a) in educational aspirations and values, Negroes were comparable to Jews, Greeks and white Protestants but differed from Italians and French Canadians; and (b) in vocational aspirations the Negro aspired lower than any of the six groups studied.

Sixty boys and 60 girls of minority group status were used in Goff's study (1954). The subjects' ages were from six to eight and 12 to 14 years. He found that girls in the minority groups for his lower-class had little anticipation of success and had feelings of deprivation as revealed by expressed wishes for further self-enhancement. Boys were reported to have a similar, but not so defined, lack of anticipation of success and feelings of deprivation.

Mitchell (1957) compared Negro adolescent boys, ages 12 to 16, by dividing them into what he called dependent, delinquent and public school groups. His conclusions were that irrealism played an important role in affecting aspirations; that significant differences existed between levels of aspirations of Negro dependent and Negro delinquent boys and those of regular public school boys.

Educational and vocational aspirations and plans of Negro and white elementary school children in middle and lower social classes were studied by Hollaway and Berreman (1959). Educational aspirations of the sixth, seventh and eighth grade children were essentially equal. Variations occurred in occupational aspirations when white middle-class children had significantly higher aspirations than did Negro and white lower-class children. Occupational plans did not differ significantly in either of the four race-class categories.

Level of Aspiration and Sex

Several studies suggested that differences in levels of aspiration

exist between males and females. Frank (1935) and Anderson and Brandt (1939) reported findings, incidental to their main purposes, which led them to conclude that differences in aspirations were evident between the sexes and that women and girls had lower aspirations than men and boys. Gould and Lewis (1940) reported that aspirations of women were lower than men in an experimental study. Rotter (1943) suggested that if there were real differences in aspirations of men and women several hypotheses could account for the differences: (a) that women as a group had less pressure exerted on them for high achievement; (b) that less pressure was upon women to aspire higher than they could expect to achieve; and (c) that girls received less training in decision making than boys.

Negro college girls were found (Sumner and Johnson, 1949) to be more reality-oriented than Negro college boys. Sex differences were evidenced at both high and low levels of performance using subject matter tasks. Himelstein's (1956) findings did not support those of Sumner and Johnson. He found no significant differences between males and females at the college level and speculated that at this level of academic achievement the aspiration levels of the subjects would not be too different if academic tasks were used as the criteria for measuring levels of aspiration.

Walter and Margoff (1951) studied the relation of sex, age and school schievement to aspiration tasks. Diverse findings were reported for sex:

boys had higher discrepancy scores than girls; girls' discrepancy scores varied more than boys. They concluded that, for the variable of age, children classified by different grade levels (fourth, sixth, eighth and twelfth) had significant differences in aspiration levels. The authors related these findings to consequences of school systems and culture.

Level of Aspiration and Grade Level

Grade level, or more specifically the data on children of different ages of development, has been interrelated in the research previously reported. Various studies have been concerned with adolescent and mature students, others with preschool children. Few studies have been concerned with development of aspiration in the early school years. It seemed important to treat grade level of children as a variable in this study, hence the separation of related research in this review of literature.

Theoretical approaches to learning have suggested that individuals learn specific responses to goals to be attained until they have accumulated sufficient sub-cultural information about which goals are thought appropriate or should be subscribed to by individuals. Baldwin (1962, p. 150) stated "one of the characteristics that comes with maturity is the ability to set goals for oneself that are slightly challenging rather than easily attainable." He further asserted that "it is only when the child sets his own challenges and determines for himself a goal that is

not implicit in the motivating situation that it is possible to speak of a level of aspiration." Conclusions, supported by research, have indicated that levels to which children aspire are first learned responses or conditioned responses, and that with maturity these aspirations become individualized.

Fales (1940) conducted one of the earliest experiments in levels of aspiration which used preschool children as subjects. He was particularly interested in the development of aspiration and independence strivings of young children. Fales reported that on easy tasks the children refused help more frequently than they did on difficult tasks or on tasks which appeared difficult to them. He suggested that promotion and encouragement in certain aspects of the task performance tended to be associated with an increase in levels of aspirations of the children. The study used such tasks as tying shoes, buttoning and removing garments.

In an investigation similar to that of Fales, Anderson (1940) studied three groups of children, aged three, five and one-half and eight. He was concerned with maturity indicators on a ring-toss game. He found that by the age of eight the child's level of aspiration resembled adults' in the ring-toss game. The children were reported to have aspired to goals different from adults, but were like adults in their response to the level of aspiration situation, i. e., they threw five rings in sequence and accepted results without a second trial, which younger children had not done.

Jucknat (1937) found that by the age of eleven there were no significant differences in aspirations of children and adults on the same tasks. He concluded that levels of aspirations were formed before the age of eleven. In one theoretical approach to achievement motivation, the authors (McClelland, et al., 1953) supported the idea with the hypothesis that motive was roughly formed between the ages of five and nine years.

Summary and Hypotheses

The term "level of aspiration" has been used in literature to refer to goals which persons set for themselves in relation to what they would like to do or would like to accomplish.

Many speculations have been made as to the factors which might contribute to the setting of these levels of aspirations by individuals. The literature review, however, appeared inconclusive as to how specific factors of class, race, sex and age might affect the levels of aspiration of children. It was thought that knowledge of what children would like to do or accomplish was important to understanding their development and training.

Level of Aspiration and Class. From the research cited, it appears that level of aspiration varies with class, at least for adolescent subjects. No studies were found which dealt directly with levels of aspiration and class of young children. There seems, however, strong and consistent evidence which shows that members of different socio-economic strata

reflect differing values (Hyman, 1953; Kahl, 1953). One could infer that parental aspirations, as a function of values, might be transmitted through parent-child relationships to younger children.

Since it has been evidenced that aspirations of younger children do resemble those of adults (Anderson, 1940), the following hypothesis seemed logical:

H_1: Levels of aspiration for middle class and lower class children would differ.

Level of Aspiration and Race. The investigation by Hollaway and Berreman (1959) compared aspiration levels of Negro and white children. Their findings indicated little variance between the races for educational aspirations and some variation for vocational aspirations. No other research was located which associated levels of aspiration with young children of two races. Virtually no research has been done using young Negro children as subjects.

Other research reviewed which pertained to levels of aspiration of different races seemed to indicate differences might be expected. In view of these findings, the following hypothesis was made:

H_2: Levels of aspirations would differ in Negro and white children.

Level of Aspiration and Sex. The research reported seemed to suggest that a difference exists between males and females in levels of aspiration. It did not appear to be understood, however, how differences in levels of aspiration might vary when boys and girls are asked to

perform on varied tasks. McCandless (1961) indicated sex differences might influence task preference. One could infer that the defined sex roles in our society might contribute to variation in levels of aspiration of boys and girls as a function of the types of tasks used. The following hypothesis seemed plausible:

H_3: Levels of aspiration of boys and girls would differ with physical and intellectual tasks.

Level of Aspiration and Grade Level. The research reviewed concerning level of aspiration and age appeared to indicate that: (a) during the preschool and early school years children are in the process of formulating levels of aspiration; and (b) as children increase in age their aspiration patterns resemble adults. It appeared that children become more realistic in their aspiration with increased age. On the basis of these findings, it was hypothesized that:

H_4: Children in different grade levels would differ in levels of aspiration.

H_5: With increased age of children, the difference between the level of aspiration and performance would decrease.

CHAPTER III

PROCEDURES OF THE INVESTIGATION

The purposes of this study were to ascertain and compare levels of aspiration and performances of groups of children classified according to class, race, sex and grade level (three stages of development) on two somewhat different tasks.

Procedural steps in this study were: (a) classification and selection of subjects to fit categories of class, race, sex and grade level; (b) selection of measuring instruments and arrangement of tasks; (c) pretesting; (d) data collection; and (e) analysis of data.

SELECTION AND CLASSIFICATION OF SUBJECTS

It was decided that students enrolled in eight public elementary schools in the second, fourth, and sixth grades would be selected for inclusion in this study. Administrative officials of the City Schools in Greensboro, North Carolina, granted permission for the research to be conducted. The administration was asked to stratify the Greensboro elementary schools into predominantly white and Negro categories. From this listing, four schools, with alternates, were selected by use of a table of random numbers for each racial category.

Information concerning class, sex and race was secured about each pupil in grades two, four and six in each of the eight schools selected.

Information concerning race, sex and grade level was obtained from the cumulative folders or from teachers records in the selected schools.

A variety of criteria could have been used for classifying subjects in different class positions, e. g., Warner's Index of Status Characteristics, Warner's Scale of Evaluative Participation, Hollingshead's Index of Social Position, Centers's Occupational Scale or Sims's Social Identification Scale. The decision was made that census classes of occupation were as adequate for the purposes of this study as any source for classification of subjects into different classes. This study employed a revision of the Edwards's Census Scale (1938) by dividing the original scale into two parts. Edwards's Census Scale has six major occupational groups (with detailed listings for each group):

1. Professional persons.
2. Proprietors, managers and officials.
3. Clerks and kindred workers.
4. Skilled workers and foremen.
5. Semiskilled workers.
6. Unskilled workers. (Edwards, 1938, pp.2-6).

Groups one through three were combined and students whose fathers' occupation fell in this grouping were referred to as "middle class." Students whose fathers' occupation fell in groups four through six were combined and composed the "lower class." Occupations of fathers could have changed since the school record was made, but it was assumed that

in most cases the occupation would not have shifted from one grouping to another. In cases where fathers' occupations were unknown, the occupation of the head of the household responsible for the student was obtained.

Classification of subjects according to the factors of class, race, sex and grade level provided the following 24 categories:

1. Middle-class, white, male, second grade.
2. Middle-class, white, male, fourth grade.
3. Middle-class, white, male, sixth grade.
4. Lower-class, white, male, second grade.
5. Lower-class, white, male, fourth grade.
6. Lower-class, white, male, sixth grade.
7. Middle-class, Negro, male, second grade.
8. Middle-class, Negro, male, fourth grade.
9. Middle-class, Negro, male, sixth grade.
10. Lower-class, Negro, male, second grade.
11. Lower-class, Negro, male, fourth grade.
12. Lower-class, Negro, male, sixth grade.
13. Middle-class, white, female, second grade.
14. Middle-class, white, female, fourth grade.
15. Middle-class, white, female, sixth grade.
16. Lower-class, white, female, second grade.
17. Lower-class, white, female, fourth grade.

18. Lower-class, white, female, sixth grade.
19. Middle-class, Negro, female, second grade.
20. Middle-class, Negro, female, fourth grade.
21. Middle-class, Negro, female, sixth grade.
22. Lower-class, Negro, female, second grade.
23. Lower-class, Negro, female, fourth grade.
24. Lower-class, Negro, female, sixth grade.

Ten subjects were drawn randomly from each of the 24 categories. The random selection of 240 subjects provided the following numbers of subjects in each group:

1. 120 children in each of the middle-and lower-class groups.
2. 120 children in each of the white and Negro races.
3. 120 children in each of the male and female groups.
4. 80 children at each grade level.

MEASURING INSTRUMENTS

Attempts to Measure Aspiration

Measurement of what an individual aspires to, or some level of this aspiration, has been a complex methodological problem which has received the attention of many researchers.

Researchers interested in the conceptual analysis of level of aspiration have customarily used minature-situation tasks as measuring instruments. Subjects have been asked to perform on such tasks as dot-connection

(Ferguson, 1958; McClelland, 1958); ring-tossing (Hoppe, 1930; French, 1955); dart throwing (Boyd, 1950; Little & Cohen, 1951); digit substitution (Gardner, 1941; French, 1955); and design (Frank, 1940; Sears & Lewin, 1957). Many other tasks designated as intellectual or physical have also been used.

Age, ability and sex of subjects are several of the factors which have concerned researchers in the selection of measuring instruments. Rotter (1942) devised what he called an Aspiration Board for determining aspiration levels of subjects. This device has been used primarily with mature subjects. Sears and Lewin (1957) were interested in tasks which measured aspiration levels of preschool and elementary children whose motor abilities and verbal expression had not sufficiently matured to perform many tasks. They experimented with such tasks as broad-jumping, weight-lifting, and designing parquetry blocks. One commercial test of aspirations, "The Cassel Group Level of Aspiration Test" (1957), is available for administration to groups. In addition to aspiration scores, seven scales are provided for measuring real and perceived worlds of individuals. The test was validated on delinquent and prison groups.

Another approach to measurement of aspirations has been employed by researchers interested only in a specific type of aspiration, i.e., what the subjects thought they could or would do in some specified area of endeavor. Vocational, occupational and educational questionnaires, in

some cases with task situation, have been used (Haller, 1958; Douvan & Adelson, 1958). The researchers have determined, somewhat subjectively, what the person aspired to do and expected to do from the information derived from these instruments. Subjects who were adolescents or older, or subjects who would soon be in a position to formalize plans, have been used primarily in research of this type.

Influence of Measurement on Level of Aspiration

Does the attempt to measure aspiration influence what the subjects revealed to be their aspirations? In an attempt to deal with this intriguing basis problem a number of studies have been done (Chapman & Volkman, 1939; Festinger, 1942; Gould & Lewis, 1940; Hertzman & Festinger, 1940). Generally, the findings were that the level of aspiration had been influenced by the social frame of reference operating for the subject at the time of the investigation. A more recent study (Kausler, 1959) investigated the motivational properties of a level of aspiration situation and found that expression of a level of aspiration, as opposed to non-expression, served to increase performance levels on subsequent tasks. Group reference situations requiring expression of aspiration were reported also to magnify levels of aspirations set by individuals.

The effects of types of questions asked the subjects were studied by Weiss (1961, p. 254). He subjected answers from ten questions used previously in level of aspiration research to factorial analysis and reported that two factors were prevalent. He labeled the two factors

"Judgmental or expectational" and "Aspirational or motivational." Questions which inquired as to aims or desires of subjects had the highest aspirational or motivational loadings. Specifically, the question, "What would you like to get?" received the highest loading in the aspirational or motivational dimension.

Irwin and Mintzer (1942) varied instructions for obtaining level of aspiration scores. The use of "hoped for" in questions, as opposed to "expect," produced significant differences in discrepancy scores.

The subject's perceived probability of success on a particular instrument has also been considered by researchers (Escalona, 1948; Atkinson, 1958) to affect aspiration level. It was concluded that measurements with a probability of .50 of success provided the more accurate assessment of levels of aspiration.

THE PROPOSED STUDY

Selection of Measuring Instruments

Since the present study dealt with children of three elementary grade levels, it was necessary that the tasks selected would: (a) be applicable at these grade levels; (b) necessitate no extensive training prior to the task situation; (c) appear suitable for use with children of different race, sex and class.

Two tasks were selected for use in this study. One was selected to represent a physical task and one to represent an intellectual task; hereafter, these tasks will, for convenience, be referred to as P and I

tasks, respectively. It was assumed that the motivational impact of the task situation would affect subjects uniformly. It was expected that bias due to task preference by subjects would be randomized and would affect all groups in the same way.

The P task was a ring-toss game and subjects were asked to indicate how many of 10 rings they would like to toss onto a peg. For the I task, the subjects were told that they would be given a list of 10 spelling words. They were asked by the researcher to state how many words of the ten they would like to spell correctly. Responses to both task questions served as level of aspiration scores.

For operationalizing the ring-toss game to use at three grade levels, the distance to the peg was varied for children of different grades. Mean heights were determined for children aged seven years, six months; nine years, six months; and eleven years, six months. The mean height of boys and girls of the above ages, plus one additional foot in length, served as the criterion for distance of the child from the peg onto which the ring was to be tossed. Heights of children with medium builds were determined from the California Growth Studies (Bayer & Bayley, 1959).

The decision was made to select spelling words from the text used in the grade prior to the present grade level in which the subject was classified. Since first graders in North Carolina have no defined spelling text, two specialists in elementary school education were asked to compile a list of words which first graders should know how to spell. From

this list, ten words were randomly selected. To give subjects a p = .50 of success, an attempt was made to vary the distances for each grade level on the P task, and to use words which subjects should have mastered in the prior grade level on the I task. It was recognized, however, that gradation of tasks might introduce variability in level of aspiration and performance scores in the different grade levels. Spelling words to be used in grades four and six were obtained from the North Carolina adopted spelling texts, Spelling for Word Mastery (1963), for grades three and five. Ten words were randomly selected from each of these texts.

Pretest of Proposed Procedures

A pretest of the proposed procedures had the following purposes:

1. Present instructions to subjects to determine if instructions seemed adequate for obtaining responses needed.
2. Test suitability of selected tasks.
3. Estimate time needed for administration of tasks to subjects at three grade levels.
4. Identify alterations needed in proposed procedures.

The pretest consisted of two phases: (a) administration of the two tasks to as many students as possible within three grade levels in one day; and (b) identification of alterations needed and readministration of altered tasks.

The advisory committee suggested that the original plan for acquiring the level of aspiration scores be varied by asking one-half the subjects the question, "How many rings/words would you like to get?" and the other one-half "How many rings/words do you expect to get?" It was questioned whether would like and expect answers would vary in the investigation.

Subjects for the pretest were enrolled in the second, fourth, and sixth grades in the Curry Demonstration School, University of North Carolina at Greensboro. In the three grade levels, a total of 58 children were presented the tasks. Twelve children represented the second grade, 19 the fourth grade, and 27 the sixth grade. Differences in schedules in the three grade levels resulted in uneven distribution of subjects used in the pretesting situation.

Results of the pretesting are reported in Table I. Mean scores for the P and I task for the three grade levels are shown with subjects classified by class and sex. The racial factor was not considered in the pretest since only white students were enrolled in the school.

On the basis of results on the pretest and difficulties ascertained, the following decisions were made:

1. The question, "How many rings/words would you like. . . . ?" resulted in higher numbers being stated for both tasks than the question, "How many rings/words do you expect to get?" The original plan was followed and the question "How many

TABLE 1

MEAN SCORES OF SUBJECTS FOR LEVELS OF ASPIRATION, PERFORMANCE AND DISCREPANCY WHEN PUPILS ARE PRESENTED PHYSICAL AND INTELLECTUAL TASKS IN PRETEST SITUATION

Classification of Pupils	N	Would Like Question						N	Expect Question					
		Physical Task			Intellectual Task				Physical Task			Intellectual Task		
		Asp.	Perf.	Disc.	Asp.	Perf.	Disc.		Asp.	Perf.	Disc.	Asp.	Perf.	Disc.
Middle-class, White Male														
Grade 2	2	8.5	0.0	-8.5	10.0	5.5	-4.5	1	5.0	1.0	-4.0	10.0	9.0	-1.0
Grade 4	6	8.3	1.0	-7.3	10.0	9.3	-0.7	4	5.3	1.0	-4.3	10.0	10.0	0.0
Grade 6	5	10.0	2.2	-7.8	10.0	7.8	-2.2	3	5.7	2.3	-3.3	8.3	7.6	-0.6
Lower-class, White Male														
Grade 2	2	4.5	0.5	-4.0	7.0	8.0	+1.0	1	5.0	0.0	-5.0	8.0	9.0	+1.0
Grade 4	0							0						
Grade 6	1	10.0	0.0	-10.0	10.0	10.0	0.0	3	4.7	2.7	-2.0	7.3	8.7	+1.3
Middle-class, White Female														
Grade 2	2	7.5	0.0	-7.5	10.0	10.0	0.0	2	4.0	0.5	-3.5	8.0	10.0	+2.0
Grade 4	4	6.3	0.8	-5.5	9.0	8.8	-0.2	3	6.7	0.3	-6.3	10.0	9.7	-0.3
Grade 6	7	9.1	1.7	-7.4	10.0	9.4	-0.6	5	4.8	1.0	-3.8	8.8	9.2	+0.4
Lower-class, White Female														
Grade 2	0							2	4.0	0.0	-4.0	10.0	8.5	-1.5
Grade 4	1	10.0	2.0	-8.0	9.0	10.0	-1.0	1	5.0	0.0	-5.0	10.0	10.0	0.0
Grade 6	2	7.0	2.0	-5.0	10.0	8.5	-1.5	1	5.0	1.0	-4.0	10.0	10.0	0.0

rings/words would you like... ?" was used in the study.

2. The P task was too difficult. The subjects' performances did not meet the p = .50 criterion for success on the ring-toss game. It was decided that mean height of children, at three grade levels, would more nearly meet the criterion requirement than had mean heights of children plus one foot. The replicated performance on the physical task with subjects used in the pre-test enabled the researcher to establish distances to use at the three grade levels (see Appendix A). In all grades, moving the peg nearer the subjects increased the amount of success.
3. The I task was too easy. The subjects had been told that the spelling words were taken from the previous grade's spelling text and many of the children were able to spell all words correctly. The criterion of p = .50 was not met. It was decided that one-half the spelling words would be selected from the spelling text used in the grade below the present attainment of the subject, and that one-half the words would be taken from the spelling text for the grade level above the present attainment of the subject. Words and sentences presented in the investigation are found in Appendix A.

THE PRESENT STUDY

Administration of the Tasks

The subjects were individually tested. By this procedure the re-

searcher expected to reduce the influence which the group might have on the subjects. The researcher was aware of the subject's classification as to race, sex and grade level, but was not cognizant of his class position. Each subject was brought or directed to the room which the school had designated for data collection. Upon entering the room the subject was informed of the research project, asked to cooperate, and was shown the P task. The subject was then asked how many of the ten rings he would like to throw onto the peg. Before performing the P task, the subject was asked to be seated and was told of the I task. The subject was then asked how many of the ten words he would like to spell. After the statement of the second aspiration, the subject was asked to perform first on the I task and then on the P task. The researcher expected, by this procedure, to reduce the influence which success or failure on the P task might have on the statement of aspiration on the I task.

Each subject's aspiration level and performance scores were recorded. The researcher asked each subject to refrain from discussion of the study until all subjects drawn from a particular classroom had been allowed time to perform on the tasks. It was thought that knowledge of the project might in some way bias the response of the subjects.

Explanation of Research to Children

Each subject selected was presented the problem of the study immediately before participation. The following introduction was made to

the subject after the researcher introduced herself:

> We are asking several of you to help us in a research project. Your teacher, _____, has told us that you would help. We are asking you to do two tasks and other boys and girls will be asked to do the same things. We are interested in learning more about what you would like to do on two things and we will use this information in our work.

Directions were given at various times during the task situations. After the general introduction, the first instruction given the subject was:

> Please come over here and stand beside me on this line. (Researcher had ten rings in her hand and had previously moved peg to appropriate distance for subject being tested). I want to tell you what we are going to ask you to do. This is a ring-toss game which is similar to throwing horseshoes. The object of the game is to get as many rings on the peg as you can. (Researcher motions throwing of ring onto peg.) I am going to give you these ten rings to throw. Look at how far the peg is from where you are standing. Tell me how many rings out of the ten you would like to throw onto the peg. I do not want to know how many rings you think you can throw onto the peg. I want to know how many you would like to throw onto the peg.

Emphasis was placed on the words would like and was repeated to help the subject state a level of aspiration rather than an estimation of what he could do.

Time was allowed for the subject to respond. Then, rather than handing the subject the rings to throw, the researcher continued the instructions:

> Before you throw the rings I want you to do another task. Come over to this table (or desk). (Researcher laid rings aside and recorded the stated level of aspiration for the physical task.) I have selected ten words for you to spell. You do not know what words I have selected but I can tell you that some of them you probably know how to spell and some of them you may not know how to spell. Tell me how many words out of the ten you would like to spell correctly when I give you the words to write. I do

not want to know how many words you think you can spell correctly. I want to know how many words you would like to spell correctly. (The researcher waited for the subject to respond and recorded the child's reply.) Here is a sheet of paper and pencil. (Larger ruled lined paper was presented to second grade subjects.) I am going to give the words to you that you are to spell just as your teacher does. First I will say the word, then use it in a sentence, then repeat the word. You may write the word when you wish.

After completion of the I task, the researcher continued:

Now go over and stand behind the line where we were and try the ring-toss game. Take all the time that you need and throw as many rings onto the peg as you can.

After completion of the P task, the researcher continued:

You did very well on the tasks. Thank you for helping me on this project. Please do not tell the other children in your room what I have asked you to do until each person has had a chance to come and see me.

COLLECTION OF DATA

All subjects who were enrolled in eight Greensboro, North Carolina, public elementary schools in the second, fourth and sixth grades were classified. Sixth graders in a ninth school were classified when one selected school was found to have students only to the fourth grade. When all students were classified in the nine schools the category "Middle-class, Negro, male, grade 6" did not have an adequate number of subjects to permit random selection of 10 subjects. The alternate school which was classified as predominantly Negro in enrollment was contacted. Permission was granted for inclusion of children from this school in the study and the researcher classified all the children in the three grade levels in this school. In the final analysis, the subjects came from ten schools of which four were

predominantly white and six predominantly Negro in enrollment. A total of 2,741 children were classified into the 24 categories according to class, race, sex and grade level. The categories of available subjects varied in number from 18 to 291 children. Ten subjects, with alternates, were randomly selected from each of the 24 categories. Absenteeism of a primary subject resulted in alternate subjects being used in seven categories.

Tasks were presented to all subjects in one school on the same day when the number of subjects selected from the school permitted. In two schools, a second day was required to complete the presentation of tasks. The subjects were given the tasks using procedures previously described. The researcher recorded the level of aspiration and performance scores for each subject on the physical and intellectual tasks and at a later time determined the discrepancy score between the level of aspiration and performance for each subject on each task.

DATA ANALYSIS

The research hypotheses, stated in the null form, were: (a) there is no difference in the levels of aspiration between middle-and lower-class children; (b) there is no difference in the levels of aspiration between white and Negro children; (c) there is no difference in the levels of aspiration between male and female children; and (d) there is no difference in the levels of aspiration among children in three grade levels.

In order to draw conclusions as to whether the data did or did not support these hypotheses the analysis of variances, fixed treatments model, (Ostle, 1954, pp. 351-352) was used. All factors were tested against the within mean square, which was used as the experimental error.

Analysis was based on a factorial design in which the F values for the four main factors and all possible interactions were determined. The .05 level of significance was employed as the criterion level for retaining or not retaining the null hypotheses.

Further interpretation of findings necessitated computation of mean scores for each factor and each interaction which was found to be significant.

CHAPTER IV

RESULTS OF THE INVESTIGATION

The purposes of this study were: (a) to determine and compare middle- and lower-class children's levels of aspiration and their performance on two somewhat different tasks; (b) to determine and compare white and Negro children's levels of aspiration and performance on two somewhat different tasks; (c) to determine and compare male and female children as to their levels of aspiration and their performance on two somewhat different tasks; and (d) to determine and compare levels of aspiration and performance of children at three grade levels (three ages of development) on two somewhat different tasks.

TEST OF HOMOGENEITY OF VARIANCES

Bartlett's Test of Homogeneity of Variances (Ostle, 1954, pp. 242-243) was computed to test the assumption of equal variances among the 24 categories of classification. The calculated value, for the sample used in the aspiration level on the physical task, was 11.4. Since the criterion value of chi square for the .05 level of significance and 23 degrees of freedom is 35.2, the null hypothesis was accepted and the assumption of homogeneity of variance was considered justified. Since the same sample was used throughout the study, the assumption of homogeneity of variance was made for all variables.

FACTORS RELATED TO LEVELS OF ASPIRATION ON PHYSICAL AND INTELLECTUAL TASKS

Data for the four factors of class, race, sex and grade level which were thought to be related to levels of aspiration of children were analyzed using the multiple classification analysis of variance, fixed treatments model (Ostle, 1954). The .05 level of significance was chosen for deciding whether the null hypothesis would be retained or rejected. Where values were great enough to be significant at the .01 level, this was noted in the tables.

Physical Task

The findings from the analysis of levels of aspiration for the physical task are presented in Table 2. Differences between the sexes and among the three grade levels were significant. The factor of sex was significant at the .05 level of significance and the factor of grade level was significant at the .01 level of significance. These findings led to the rejection of the null hypotheses that there were no differences between males and females, and among students in the second, fourth, and sixth grades in levels of aspiration for the P task. Not rejected, however, were the hypotheses that there were no differences between middle-and lower-class and between white and Negro children.

TABLE 2

ANALYSIS OF VARIANCE OF LEVELS OF ASPIRATION WHEN A PHYSICAL TASK WAS PRESENTED

Source of Variation	Degrees of Freedom	Mean Square	F
Class	1	.9	.15
Race	1	10.8	1.80
Sex	1	28.7	4.78*
Grade	2	17.1	5.70**
Class x Race	1	4.0	.66
Class x Sex	1	26.0	4.33*
Class x Grade	2	1.2	.41
Race x Sex	1	7.7	1.28
Race x Grade	2	.2	.06
Sex x Grade	2	8.0	2.66
Class x Race x Sex	1	12.7	2.11
Race x Sex x Grade	2	2.3	.78
Class x Sex x Grade	2	4.7	1.58
Class x Race x Grade	2	.5	.16
Class x Race x Sex x Grade	2	22.1	7.38**
Within	216	6.0	
Total	239		

* Significant at .05 level.
**Significant at .01 level.

The mean scores for the main factors of sex and grade level are presented in Table 3. Male subjects had higher mean aspiration scores than females. Scores ranged from two to ten (see Appendix B) and the highest score to which a child could aspire was ten. The finding of significant differences in levels of aspirations for boys and girls on the P task was as expected and it agreed with the finding by Sears and Levin (1957). The differential socialization of boys and girls in the home, parental reinforcement of "sex-appropriate" behavior, and encouragement of athletic prowess for boys might contribute to this difference in aspirations of boys and girls.

Mean scores for the grade levels showed that as grade level increased the aspiration levels increased. This finding supports in part the developmental concept of motor chaining (McCandless, 1961, p. 280). As children mature they become more efficient in motor skills and it seemed plausible that with increased efficiency in motor skills greater self-confidence should follow. With this increased confidence it is logical that aspiration levels might be increased (Sears & Levin, 1957).

The interaction between class and sex was significant at the .05 level (Table 4). Lower-class boys aspired higher than did middle-class boys whereas lower-class girls aspired lower than did middle-class girls. Male and female middle-class children were much alike with respect to level of aspiration when a physical task was presented. Male and female

TABLE 3

MEAN ASPIRATION SCORES FOR SEX AND GRADE WHEN A PHYSICAL TASK WAS PRESENTED

Classification	N	Mean Score
Sex		
Male	120	8.06
Female	120	7.37
Grade Level		
Second	80	7.26
Fourth	80	7.71
Sixth	80	8.18

lower-class children were different, as indicated by means of 8.33 and 6.96.

TABLE 4

MEAN ASPIRATION SCORES FOR PUPILS GROUPED BY CLASS X SEX WHEN A PHYSICAL TASK WAS PRESENTED

N = 60

	Class	
Sex	Lower	Middle
Male	8.33	7.80
Female	6.96	7.77

The rejection of the null hypothesis concerning the interaction of the factors of sex and class gives support to Rabban's (1950) findings. He reported that lower-class boys identified earlier with masculine interests than middle-class boys and lower-and middle-class girls.

The third-order interaction of class x race x sex x grade level was also significant. Ray (1960, p. 158), in a discussion of factorial designs, indicated that "...third and higher order interactions probably have little practical significance." As a result of this conclusion by Ray, which has been supported by other statisticians, any third-order interaction found significant in this study will be recorded in the analysis of variance table, reported in the results, but not discussed separately by mean scores.

It might be concluded that for the variables in this study, the research hypothesis of difference in levels of aspirations on the P task was

tenable for the variables of sex and grade level, was tenable for the class variable only when class interacted with the variable of sex, and was not tenable for the variable of race.

Intellectual Task

There were no statistically significant sources of variation in levels of aspiration when an intellectual task was presented to the children, Table 5. No significant interactions were found. The findings did not justify the rejection of the null hypothesis of no difference in levels of aspiration on the intellectual task: (a) between children from middle-class homes and children from lower-class homes; (b) between Negro and white children; (c) between males and females; and (d) among pupils in the second, fourth, and sixth grades. Hypotheses of no interactions among main factors were also not rejected.

The finding of no significant difference in levels of aspiration on the I task between middle-class and lower-class children did not support the findings of similar difference in older children reported by Douvan and Adelson (1958) and Empey (1956). If parents' expectations regarding achievement, as discussed by Bronfenbrenner (1958), had been adopted by middle-class children as aspirations, then middle-class children should have been expected to aspire higher than lower-class children.

The finding of no significant difference in levels of aspiration between white and Negro children on the I task was inconsistent with Sutherland's

TABLE 5

ANALYSIS OF VARIANCE OF LEVELS OF ASPIRATION WHEN AN INTELLECTUAL TASK WAS PRESENTED

Source of Variation	Degrees of Freedom	Mean Square	F
Class	1	14.0	2.97
Race	1	.0	.0
Sex	1	.0	.0
Grade	2	.0	.0
Class x Race	1	4.0	.85
Class x Sex	1	12.0	2.55
Class x Grade	2	1.0	.42
Race x Sex	1	3.0	.63
Race x Grade	2	.5	.21
Sex x Grade	2	1.0	.42
Class x Race x Sex	1	1.0	.21
Race x Sex x Grade	2	4.5	1.91
Class x Sex x Grade	2	1.5	.63
Class x Race x Grade	2	4.0	1.70
Class x Race x Sex x Grade	2	1.5	.63
Within	216		
Total	239		

* Significant at .05 level.
** Significant at .01 level.

(1942) report. He indicated that Negro children learned early in life that they were inferior to the white society, and it was generalized that they could be expected to aspire lower than white children.

One could infer that from the present findings the research hypotheses of differences in levels of aspiration on the I task for middle-and lower-class children, white and Negro children, male and female children and among children at three grade levels, were untenable.

FACTORS RELATED TO PERFORMANCE ON PHYSICAL AND INTELLECTUAL TASKS

The four factors of class, race, sex and grade level which were thought to be related to levels of aspiration on the physical and intellectual tasks were also considered to be related to levels of performance on the two tasks. The data were analyzed employing the same analysis of variance model, with multiple classification. The .05 level of significance was used as the point for rejecting the null hypothesis. It has been noted in the tables when the values were great enough to be significant at the .01 level.

Physical Task

The main factors of class, race, sex and grade level were analyzed to see if they accounted for the variability among children in the performance of the physical task. The results are presented in Table 6. Only the F value for sex, 16.84, was significant and this value was significant

at the .01 level. Male subjects in this study performed higher than did female subjects. The mean score for males was 3.53 and the mean score for females was 2.51. This finding was not surprising in a society where motor skills are stressed more for the male than for the female role.

No significant differences on the P task were found between middle- and lower-class children; between Negro and white children; and among children of the second, fourth and sixth grades. There were, however, significant differences between male and female subjects and the null hypothesis that no difference exists between males and females on performance on the P task was rejected. For performance on the P task, the null hypotheses were not rejected for differences between subjects who were classified in this study as middle-and lower-class, between white and Negro children, and among children at three grade levels.

The finding of no significant difference between middle-and lower-class children's performance appears to be inconsistent with evidence cited in McCandless (1961, p. 463). He suggested that lower-class children learn aggressiveness and prowess in physical skills by virtue of being "left on the streets."

The sterotypic picture of Negro children suggests that they are more skilled in physical tasks than white children. However, when this idea is invoked it is usually associated with the variable of class. On the basis of the present finding for the P task neither the main factor nor its combination with the other factors fitted the stereotype. McCandless (1961, p. 480)

TABLE 6

ANALYSIS OF VARIANCE OF LEVELS OF PERFORMANCE WHEN A PHYSICAL TASK WAS PRESENTED

Source of Variation	Degrees of Freedom	Mean Square	F
Class	1	7.0	1.90
Race	1	9.0	2.44
Sex	1	62.0	16.84**
Grade	2	3.5	1.90
Class x Race	1	13.0	3.53
Class x Sex	1	2.0	.54
Class x Grade	2	2.0	1.08
Race x Sex	1	.0	.0
Race x Grade	2	.5	.27
Sex x Grade	2	3.0	1.63
Class x Race x Sex	1	.0	.0
Race x Sex x Grade	2	4.0	2.17
Class x Sex x Grade	2	3.5	1.90
Class x Race x Grade	2	2.5	1.35
Class x Race x Sex x Grade	2	6.0	3.26*
Within	216	3.68	
Total	239		

* Significant at .05 level.
** Significant at .01 level.

cited evidence that children should become more efficient in motor tasks with continued experience in activities. One might have expected the performance skills on physical tasks to increase with age. For this study, the evidence cited was not supported. It should be noted, however, that the task increased in difficulty with grade level.

Of the interactions among the four factors (class, race, sex and grade level) concerned with variability of performance on the P task, only the third-order was significant at the .05 level.

Intellectual Task

In the analysis of factors; class, race, sex and grade level; on performance on the I task, all factors were significant beyond the .01 level. The F ratios for these factors are presented in Table 7. The following null hypotheses concerning performance on the I task were rejected: (a) there is no difference between subjects classified as to middle-or lower-class; (b) there is no difference between white and Negro subjects; (c) there is no difference between male and female subjects; and (d) there is no difference among subjects in grades two, four and six.

Among the variances due to interactions, the first-order interaction between class and grade was significant at the .05 level. Two second-order interactions were also significant at the .05 level. Combinations of grade level, sex and race provided one of the significant interactions and grade level, sex and class provided the other significant interaction for

TABLE 7

ANALYSIS OF VARIANCE OF PERFORMANCE
WHEN AN INTELLECTUAL TASK WAS PRESENTED

Source of Variation	Degrees of Freedom	Mean Square	F
Class	1	224.0	36.72**
Race	1	150.0	24.59**
Sex	1	89.0	14.59**
Grade	2	38.0	12.45**
Class x Race	1	1.0	.32
Class x Sex	1	1.0	.32
Class x Grade	2	11.0	3.60*
Race x Sex	1	8.0	1.31
Race x Grade	2	4.5	1.47
Sex x Grade	2	4.0	1.31
Class x Race x Sex	1	16.0	2.62
Race x Sex x Grade	2	16.0	5.24*
Class x Sex x Grade	2	10.5	3.44*
Class x Race x Grade	2	7.0	2.29
Class x Race x Sex x Grade	2	11.5	3.77*
Within	216	6.1	
Total	239		

* Significant at .05 level.
** Significant at .01 level.

performance on the I task. The third-order interaction composed of all main factors was also significant, at the .05 level.

Mean scores for performance on the I task are shown in Table 8. Children classified in the middle-class performed an average of 1.94 score points higher than children in the lower-class category. This finding supported the conclusion (Bronfenbrenner, 1958) that middle-class parents emphasized achievement for their children.

White children performed higher than Negro children with an average difference of 1.58 score points on the I task; whereas for performance on the P task no significant difference was found between the races.

Girls performed higher than boys when presented the I task, whereas on the P task the boys performed higher than the girls.

An increase in performance ability between each successive grade level may be noted for the three grades with second graders performing lowest on the I task and sixth graders performing highest. This difference among grade levels was not found in performance on the P task.

Table 9 shows the mean scores for the interaction between class and grade level. Although the means at the fourth and sixth grade levels were progressively higher for children in both social classes there were greater differences among mean scores of lower-class children than there were among means of middle-class children.

TABLE 8

MEAN PERFORMANCE SCORES
WHEN AN INTELLECTUAL TASK WAS PRESENTED

Classification	N	Mean Scores
Class		
Middle	120	7.35
Lower	120	5.41
Race		
White	120	7.17
Negro	120	5.59
Sex		
Male	120	5.77
Female	120	6.99
Grade		
Second	80	5.68
Fourth	80	6.40
Sixth	80	7.06

TABLE 9

MEAN PERFORMANCE SCORES FOR PUPILS GROUPED BY CLASS AND GRADE LEVEL WHEN AN INTELLECTUAL TASK WAS PRESENTED

N = 240

	Grade Level		
Class	2	4	6
Middle	7.07	7.10	7.87
Lower	4.30	5.70	6.25

Mean scores for the statistically significant second-order interaction between children classified by race, sex and grade level are shown in Table 10. White girls in the sixth grade performed highest on the intellectual task when means were compared in this three-way grouping. Negro boys in the second grade performed lowest on the I task. It may be noted that Negro boys and white and Negro girls performed higher as grade level increased while white boys in the sixth grade performed lower than did white boys in the second and fourth grades. It was speculated that this significance might be partially accounted for by the stress of academic excellence for white girls, particularly as they increase in age.

TABLE 10

MEAN PERFORMANCE SCORES FOR PUPILS GROUPED BY RACE, SEX AND GRADE LEVEL WHEN AN INTELLECTUAL TASK WAS PRESENTED

N = 240

Grade Level	Race			
	White		Negro	
	Male	Female	Male	Female
Grade 2	6.70	6.70	4.00	5.35
Grade 4	7.05	7.40	4.35	6.80
Grade 6	6.50	8.70	6.05	7.00

The interaction of class, sex and grade level is shown in Table 11. When classified in this three-way grouping, the mean performance scores for children indicated that lower-class boys in the second grade had the

lowest mean score and that lower-class girls in the second grade had a comparably low mean. Girls classified as middle-class and in the sixth grade performed the highest on the intellectual task. Girls and boys in the middle-class performed higher respectively than girls and boys in the lower-class. Lower-class boys at all grade levels performed lower than middle-class boys at any grade level and lower-class girls in all grades performed lower than middle-class girls in the same grades.

TABLE 11

MEAN PERFORMANCE SCORES FOR PUPILS GROUPED BY CLASS, SEX AND GRADE LEVEL WHEN AN INTELLECTUAL TASK WAS PRESENTED

N = 240

Grade Level	Sex			
	Male		Female	
	Lower-class	Middle-class	Lower-class	Middle-class
Grade 2	4.25	6.45	4.35	7.70
Grade 4	5.30	6.10	6.10	8.10
Grade 6	5.15	7.40	7.35	8.35

DISCREPANCY SCORES FOR PHYSICAL AND INTELLECTUAL TASKS

The factors of class, race, sex and grade level were analyzed to determine whether they accounted for variability among subjects' discrepancy scores for the physical and intellectual tasks. Discrepancy scores were computed by determining the difference between each level of aspiration score and the corresponding performance score. Hereafter, for

convenience, the discrepancy scores will be referred to as D scores.

Children performed higher than they aspired in 17 cases on the P task and in 47 cases on the I task.

The analysis of variance with multiple classification was again used for analyzing the data. The .05 level of significance was employed as the point beyond which the null hypothesis would be rejected. Notation was made in the tables when values were great enough to be significant at the .01 level.

Physical Task

The findings from the analysis of variance of D scores on the P task may be found in Table 12.

Of the main factors of class, race, sex and grade level, only race was found to account for a significant variation in D scores when the children were presented the P task. This significance was at the .05 level. Mean D scores on the P task for children of the white race indicated greater difference between the levels of aspiration and performance than for Negro children. The mean score for white children was 5.10 and the mean difference for Negro children was 4.29. The null hypothesis about white and Negro children was rejected. It might be speculated that white children were less realistic than Negro children in their aspirations on a ring-toss game. The following null hypotheses concerning D scores on the P task were retained: (a) there was no difference between children

TABLE 12

ANALYSIS OF VARIANCE OF DISCREPANCY SCORES WHEN A PHYSICAL TASK WAS PRESENTED

Source of Variation	Degrees of Freedom	Mean Square	F
Class	1	6.2	.77
Race	1	37.6	4.70*
Sex	1	4.8	.60
Grade	2	4.0	1.01
Class x Race	1	26.6	3.32
Class x Sex	1	40.3	5.03*
Class x Grade	2	.6	.01
Race x Sex	1	8.6	1.07
Race x Grade	2	.2	.06
Sex x Grade	2	6.9	1.72
Class x Race x Sex	1	6.8	1.70
Race x Sex x Grade	2	6.0	1.50
Class x Sex x Grade	2	2.4	.61
Class x Race x Grade	2	3.3	.80
Class x Race x Sex x Grade	2	47.6	11.90**
Within	216	8.0	
Total	239		

* Significant at .05 level.
** Significant at .01 level.

classified as to middle-or lower-class; (b) there was no difference between children classified as male and female; and (c) there was no difference among children in three grade levels.

The interaction of class and sex was found to be significant at the .05 level. The third-order interaction for class, race, sex and grade level was significant at the .01 level.

The mean D scores on the P task for the interaction between class and sex are shown in Table 13. As main factors, class and sex had not been significant. The interaction between these two factors, however, was significant at the .05 level. The two means for boys did not differ greatly but middle-class girls had a much higher mean D score than did lower-class girls. It would appear that girls contributed more to the variability of D scores on the P task than boys. The pattern was different for middle-and lower-classes with girls in the middle class having the larger D score and boys in the lower class having the larger D score.

TABLE 13

MEAN DISCREPANCY SCORES FOR PUPILS GROUPED BY CLASS AND SEX WHEN A PHYSICAL TASK WAS PRESENTED

N = 240

Class	Sex	
	Male	Female
Middle	-4.35	-5.50
Lower	-4.71	-4.19

Intellectual Task

Factors of class, race, sex and grade level were analyzed to determine whether they accounted for the variability of subjects' D scores on the I task. The findings from this analysis are presented in Table 14.

All main factors were found to be significant at the .01 level. These findings permitted the rejection of the null hypotheses concerning D scores on the I task that no difference exists: (a) between middle-class children and lower-class children; (b) between white and Negro children; (c) between male and female children; and (d) among children in three grade levels. When the children were classified by two factors, the interaction between class and grade level was significant at the .01 level. In the three-way classification, the interaction of race, sex and grade level was significant at the .01 level.

Mean D scores for the I task when children were classified by class, race, sex and grade level are shown in Table 15.

In the class grouping of children, the lower-class children had the higher D score. The average D score for the lower-class children was more than twice that of the middle-class children for the I task. Research cited by McCandless (1961, p. 469) suggested that lower-class children did not learn as rapidly as middle-class children. Though this research finding may be questionable, it may support the present study's finding of a lower performance mean for lower-class children. It may also suggest that lower-class children aspire as high as middle-class children, though performance may differ.

TABLE 14

ANALYSIS OF VARIANCE OF DISCREPANCY SCORES WHEN AN INTELLECTUAL TASK WAS PRESENTED

Source of Variation	Degrees of Freedom	Mean Square	F
Class	1	114.1	23.28**
Race	1	105.6	21.55**
Sex	1	45.3	9.24**
Grade	2	17.6	7.20**
Class x Race	1	.6	.12
Class x Sex	1	.0	.00
Class x Grade	2	8.4	3.42**
Race x Sex	1	2.3	.46
Race x Grade	2	4.2	1.73
Sex x Grade	2	3.8	1.57
Class x Race x Sex	1	5.7	1.16
Race x Sex x Grade	2	7.5	3.08**
Class x Sex x Grade	2	.5	.20
Class x Race x Grade	2	4.1	1.69
Class x Race x Sex x Grade	2	5.6	2.30
Within	216		
Total	239		

* Significant at .05 level.
** Significant at .01 level.

TABLE 15

MEAN DISCREPANCY SCORES WHEN AN INTELLECTUAL TASK WAS PRESENTED

Classification	N	Mean Scores
Class		
Middle	120	-1.25
Lower	120	-2.70
Race		
White	120	-1.24
Negro	120	-2.71
Sex		
Male	120	-2.58
Female	120	-1.37
Grade Level		
Second	80	-2.71
Fourth	80	-1.96
Sixth	80	-1.26

Negro children in this study had a mean D score more than twice that of white children. Negro children, it appeared, did want to perform well on the I task but did not succeed in their performing sufficiently well in relation to their aspirations as did white children. The finding called attention to the generalizations concerning comparability of white and Negro schools.

The mean D score for boys was higher than the mean D score for girls, on the I task. This might indicate that boys were less realistic or performed lower than girls. It was previously reported in this study that

boys had performed lower on the I task than had girls.

Variation of D scores among the three grade levels was apparent; as grade level increased the mean D scores decreased. The research hypothesis concerning decreases in D scores with increased age of children was tenable for the I task.

Mean D scores on the I task for the interaction of class and grade level are found in Table 16. Lower-class children in the second grade had the highest D score whereas middle-class children in the sixth grade had the lowest D score. There was negligible difference between second and fourth grade middle-class children and a large difference between second- and fourth grade lower-class children.

TABLE 16

MEAN DISCREPANCY SCORES OF PUPILS GROUPED BY CLASS AND GRADE LEVEL WHEN AN INTELLECTUAL TASK WAS PRESENTED

N = 240

Grade Level	Class	
	Middle	Lower
Grade 2	-1.55	-3.87
Grade 4	-1.42	-2.50
Grade 6	- .80	-1.72

The mean D scores on the I task when children were grouped by race, sex and grade level are presented in Table 17. In this three-way classification, Negro boys in the second grade had the highest D mean score, with

Negro boys in the fourth grade having the second highest. This finding suggests that Negro boys at lower grade levels aspired higher than their performance on the I task when compared with the other children classified by race, sex and grade level. Sixth grade, white girls had the lowest D score and it was positive in direction. The difference in direction for the mean D score for this group indicates that white girls in the sixth grade performed higher than they had aspired to perform on the I task. The significant interaction seems to be associated with the large differences between Negro boys and girls in the second and fourth grades and the large difference between white boys and girls at the sixth grade level.

TABLE 17

MEAN DISCREPANCY SCORES OF PUPILS GROUPED BY RACE, SEX AND GRADE LEVEL WHEN AN INTELLECTUAL TASK WAS PRESENTED

N = 240

	White		Negro	
Grade Level	Female	Male	Female	Male
2	-1.80	-1.80	-2.95	-4.30
4	-1.20	-1.10	-1.55	-4.00
6	+ .80	-2.35	-1.55	-1.55

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

SUMMARY

Introduction and Review of Literature

It is thought that children learn to evaluate their performance and accomplishments not only on the basis of what they have performed or accomplished in an "absolute" manner, but also in relation to what they would like to have done. What a person would like to do has been referred to as level of aspiration. Since level of aspiration is important to performance, since children do evidence aspirations early in life (Baldwin, 1955, p. 148), and since children's patterns of aspirations resemble adults' (Anderson, 1940; Jucknat, 1937), it seemed important that additional developmental data be obtained pertaining to the aspirations of young children. Evidence was cited (Stotland, et al., 1957) which suggested that children evaluate their performance by behavior of "significant others" who relate to them. Bernard (1960) indicated that sub-cultural group experiences might affect aspirations of children. Anderson (1940) reported that the maturity of the children might contribute significantly to what the children aspired to do. There are few developmental data on variations of aspirations of children and how the variations are associated with factors as class, sex, age and especially race. In light of the current concern over conditions of

poverty in our society and its probable relevance to aspirations, the present study was designed to include some children of lower economic class.

The review of theory and research pertaining to levels of aspiration of children, i. e., goals which children set for themselves when presented with a task, appeared to indicate that two types of problems existed in investigating and conceptualizing this phenomenon. One problem was concerned with factors external to the child which were thought to be associated with levels of aspiration, such as qualities of a goal. The second problem concerned how the individual perceived the situation with regard to the goals which he had set for himself or which had been set for him, the incentive which the task or goal held for him, and the drive or motivation which he had for goal attainment. The research reviewed gave indications that variations in aspirations which children have might be partially accounted for by the different economic classes in which the child was reared; the race or sub-cultural group in which the child was a member or to which he aspired to become a member; sex role as defined by our society; and by the child's age or stage of development.

No research was found which had specifically considered the aspects of class, race, sex and grade level of children developmentally, and how these factors might contribute to variations in aspiration levels set by children on two different types of tasks.

Statement of the Problem

This study investigated and (a) ascertained levels of aspirations and performances of children on a physical and an intellectual task, and (b) analyzed the variations in these data when children were grouped by middle-and lower-classes, Negro and white races, males and females, and different grade levels.

In view of the related literature on levels of aspirations, the following hypotheses were inferred:

H_1: Levels of aspiration for middle class and lower class children would differ.

H_2: Levels of aspiration would differ for Negro and white children.

H_3: Levels of aspiration of boys and girls would differ with physical and intellectual tasks.

H_4: Children in different grade levels would differ in levels of aspiration.

H_5: With increased age of children, the difference between the level of aspiration and performance would decrease.

Selection of Subjects

Subjects selected for this study were children enrolled in the second, fourth and sixth grades in 10 elementary schools in Greensboro, North Carolina. The schools had been stratified as predominantly white or Negro in enrollment. A total of 2,741 children were classified according to their grade level, race and sex using information from the cumulative

records and from teachers' records. The head of household's occupation for each child served as an index for classifying children by class. A revision of Edwards's Census Occupational Scale (Edwards, 1938) was used for determining the class of occupation of the head of household. This manner of classification provided 24 different categories for children. Ten children were randomly selected from each of the 24 categories for participation in the study. A total of 240 children comprised the present sample.

Measurement of Aspiration

The operational measurement of level of aspiration and performance was accomplished by using two somewhat different tasks. For a physical task, a ring-toss was selected (P task) and for an intellectual task, a list of spelling words was used (I task). A pretest of the tasks with subjects from the Curry Demonstration School, University of North Carolina at Greensboro, provided information which led to alterations needed in instructions and tasks.

Data Collection

In the investigation, children were first asked to state how many of 10 rings they would like to throw onto a peg and how many of 10 spelling words they would like to spell correctly. The response given by each child for each task was recorded as his level of aspiration. Following responses on both the P and the I tasks, the child was asked to perform

on the I and then on the P task. Children performed individually and away from the group in order to reduce group influence which has been reported to influence aspiration levels. The children performed only after stating what they would like to do on each task which helped to control the influence which success and failure are reported to have on aspiration levels. The investigator was aware of each subject's classification of race, sex and grade level but was not cognizant of the subject's class position.

Scores were obtained for levels of aspiration, performance and discrepancy between the two scores for each child on each task. Responses were then classified into one of the 24 categories according to the class, race, sex and grade level of each child.

Data Analysis

The analysis of variance, fixed treatments model, using multiple classification (Ostle, 1954, pp. 350-352), was the statistical test employed for analyzing the data. The F values were obtained for the main factors and for all interactions. The .05 level of significance was employed as the criterion for making decisions about rejecting or retaining the null hypothesis.

Results of the Investigation

Levels of Aspiration - Physical Task. There were two significant main-factor F values for levels of aspiration on the P task. Sex and

grade level were found to be statistically significant. Boys, in this study, had higher mean aspirations on the P task than did girls. The means for grade level showed that as grade level increased from second to sixth grade, aspirations levels increased. The main factor interaction of class and sex was statistically significant. Lower-class boys aspired higher than middle-class boys whereas lower-class girls aspired lower than middle-class girls on the P task.

Levels of Aspiration - Intellectual Task. No factor was found to be statistically significant. Levels of aspiration between middle-and lower class children, between white and Negro children, between boys and girls, and among three grade levels were found to be statistically insignificant. When main factors were combined there were no significant differences found.

Performance - Physical Task. When the children performed on the P task, only sex as a main factor was found to be statistically significant. Boys were found to have higher mean scores than girls. No interaction between factors was found to be statistically significant for the P task.

Performance - Intellectual Task. In contrast to the performance on the P task, data analysis revealed significant differences between all main factors investigated. Middle-class children had higher mean scores than lower-class children. White children performed higher on the I task than Negro children. Girls performed higher than boys, and as grade level increased the means of the children increased from one

grade level to the next. Significant differences in performance on the I task were also found in interactions between main factors. One significant F value was found when children were combined by class and grade level. Mean performance scores of both middle-and lower-class children increased with grade level increase. The three-way interaction of race, sex and grade level was significant. Sixth-grade white girls had the highest performance mean and second-grade Negro boys had the lowest performance mean on the spelling task. In another three-way combination of factors (class, sex and grade level), lower-class boys in the second grade had the lowest mean performance score on the spelling task. Lower-class girls in the second grade had a mean score comparable to their male peers. Middle-class boys and girls performed higher than lower-class boys and girls, respectively.

Discrepancy Scores - Physical Task. The discrepancy scores were computed as the difference between each child's level of aspiration and his performance on each task. The factor of race was found to be statistically significant when D scores were analyzed. White children had a greater discrepancy in mean scores than did Negro children on the P task. In the interactions of the main factors, the combination of children grouped by class and sex was found to be significant. Middle-class girls had a higher mean D score than did lower-class girls whereas the boys in the two classes did not differ greatly.

Discrepancy Scores - Intellectual Task. The F values for all main

factors on the I task were statistically significant. The mean scores indicated that lower-class children had higher D scores than did middle-class children; Negro children had higher D scores than did white children; boys had higher D scores than girls; and as grade level increased the mean D scores decreased. The interaction of class and grade level was statistically significant for D scores. Lower-class children in all grades had higher mean D scores than middle-class children at any grade level. In the three-way combination of factors on the I task, the F value for the interaction of race, sex and grade level was statistically significant. Negro boys in the second and fourth grades had the highest mean D scores and white girls in the sixth grade had the lowest D scores.

CONCLUSIONS

Limitations of the Study

In each school different rooms were assigned for data collection. Had it been possible to bring all subjects to one location equally novel to all, the findings might have been different. The sample itself may have been a limiting factor. Subjects whose head of household's occupational rating placed them near the center of the revised occupational scale may have contributed to some subjects being placed inadvertently in the class in which they may not have been a member. The use of tasks different from the ones used in the investigation might have resulted in varied findings.

Research Hypotheses

However, with the above limitations in mind, the following conclusions seemed justified:

Class. The hypothesis that levels of aspiration for middle-class and lower-class children would differ was untenable since the F value was too small to warrant rejection of the null hypothesis on either the P or I tasks.

Race. The hypothesis that levels of aspiration would differ for Negro and white children was untenable since the F value was too small to warrant rejection of the null hypothesis on either the P or I tasks.

Sex. The hypothesis that levels of aspirations of boys and girls would differ with physical and intellectual tasks was partially supported. On the P task the F value was sufficiently large to allow rejection of the null hypothesis. However, on the I task the F value was too small to permit rejection of the null hypothesis.

Grade Level. The hypothesis that children in different grade levels would differ in levels of aspiration was partially supported. On the P task, the F value was sufficiently large to warrant rejection of the null hypothesis. On the I task, however, the F value was too small to permit rejection of the null hypothesis.

The hypothesis that with increased age of children the difference between level of aspiration and performance would decrease was partially supported. On the P task, the F value was insufficient to permit

rejection of the null hypothesis. On the I task, the F value was sufficient to permit rejection of the null hypothesis.

Performance and Discrepancy Conclusions

One hypothesis and the conclusion made concerning discrepancy has been reported. There were no other predictions made regarding performance scores and other discrepancy scores for the children. However, several conclusions concerning these scores appear to warrant inclusion in this chapter, namely:

Class. The null hypotheses concerning middle-and lower-class children's performance and discrepancy between levels of aspiration and performance were rejected on the I task but were retained for the P task. It was concluded that middle-class and lower-class children did differ significantly in performance and discrepancy for the I task.

Race. The null hypothesis concerning white and Negro children's performance was rejected for the I task, but was not rejected for the P task. It was concluded that Negro and white children did differ significantly in performance on the I task. The null hypothesis concerning white and Negro children's discrepancy was rejected for both the P and I tasks. It was concluded that white and Negro children did differ significantly in their discrepancies for both the P and I tasks.

Sex. The null hypotheses regarding boys and girls' performances were rejected for the I task but not rejected for the P task. It was concluded that boys and girls did differ significantly on D scores for the I

task but not for the P task.

Grade Level. The null hypothesis concerning performance for children at different grade levels was rejected for the I task but not rejected for the P task. It was concluded that children in different grade levels did differ significantly in their performance in an I task.

The null hypothesis concerning discrepancy scores for children at three grade levels was rejected for the I task but not rejected for the P task. It was concluded that discrepancy for children at three grade levels differed significantly for the I task but not for the P task.

RECOMMENDATIONS

In view of previous related research, the findings of this study, and the researcher's perceptions concerning the investigation, several recommendations for further study seem appropriate.

1. Related theoretical explanations of level of aspiration have taken two approaches in conceptualizing the phenomenon. One approach (McClelland, et al., 1953) suggested that level of aspiration was a general concept and that levels of aspiration would remain fairly constant from goal to goal. The second approach (Crandall, et al., 1960) suggested that aspiration levels vary with skills involved in the goal-related situation, i.e., some children may have higher aspirations in particular skills, as motor, verbal, or social. Results of the present study agree more with Crandall than with McClelland. It is recommended that exploration

of these approaches be made using a greater variety of tasks.

2. The tasks used in this study were somewhat different. It would appear valuable to make a study of a series of related tasks, e. g., a series of intellectual tasks, to study variations in levels of aspiration of children in similar tasks.

3. It has been reported (Stotland, et al., 1957) that certain persons, as parents or teachers, do influence aspirations of young children. It seems plausible to recommend that a study be made of these "significant others," as they relate to young children, to attempt to identify them and their influence on aspiration levels of the children.

4. Data which are more extensive in defining variables of class and race might be explored to determine their association with aspirations of children. For example, are familial or racial values held regarding academic achievement, social prestige, autonomy, and the like, associated with aspirations of children? Are these values associated with aspirations of children when tasks that are difficult or easy are administered?

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APPENDIX A

ITEM 1

DISTANCES FROM PEG IN RING-TOSS GAME

Grade 2	49 1/2"
Grade 4	53 7/8"
Grade 6	58 1/2"

ITEM 2

SPELLING WORDS AND SENTENCES USED IN THE INTELLECTUAL TASK

Grade 2

1. Some. Now help me find some sticks.
2. Finished. Before he is finished he hangs a frosty star upon the tree branch.
3. Up. I'll come back up and get Red.
4. Mine. I have a bar of soap that is all mine.
5. Stop. Stop and take another look.
6. Save. Cowboy Bill searches in the rain to save the strays.
7. His. Please cut my hair like his.
8. Stick. Next, he said a word or two and hit the hat with the stick.
9. That. I can make a bird with that color.
10. Ago. Some time ago, I bought a bird.

Grade 4

1. Dime. They bought two drinks and gave him a dime.
2. Chocolate. Three chocolate bars.
3. Save. Cowboy Bill searches in the rain to save the strays.
4. Automobile. An automobile has a hood but no ears to cover.
5. Stick. Next, he said a word or two and hit the hat with the stick.
6. Score. Firefly seemed to know that he had made a perfect score.
7. Ago. Some time ago, I bought a bird.
8. Cause. Hank was almost sure that the angry black cloud would cause trouble.
9. Mine. I have a bar of soap that is all mine.
10. Greatest. Ahead, the greatest of all ladies, the Statue of Liberty, stands holding her gleaming torch.

Grade 6

1. Attend. Jim and his family had been invited to attend the shooting of the movie.
2. Settlement. A settlement of Seminole Indians is nearby.
3. Greatest. Ahead, the greatest of all ladies, the Statue of Liberty, stands holding her gleaming torch.
4. Deserted. A deserted village.

5. Cause. Hank was almost sure that the angry black cloud would cause trouble.
6. Phrase. Every phrase in each sentence is carefully worded.
7. Score. Firefly seemed to know that he had made a perfect score.
8. Arranged. An interesting display can be arranged in a picture frame.
9. Remove. Each day one can watch it remove old berries and seek fresh ones.
10. Command. The officer gave his men the command to march.

APPENDIX B

ITEM 3

SUBJECT'S LEVEL OF ASPIRATION, PERFORMANCE AND DISCREPANCY SCORES ON THE PHYSICAL AND INTELLECTUAL TASKS

Classification	Physical Task			Intellectual Task		
	Asp.	Perf.	Disc.	Asp.	Perf.	Disc.
Middle-class,	5	4	-1	10	9	-1
White, Male,	5	5	0	5	5	0
Grade 2	10	3	-7	10	8	-2
	5	3	-2	6	9	+3
	4	0	-4	8	4	-4
	10	5	-5	10	9	-1
	10	0	-10	10	8	-2
	8	4	-4	6	10	+4
	10	2	-8	10	10	0
	5	7	+2	10	8	-2
Middle-class,	9	5	-4	10	8	-2
White, Male,	10	4	-6	10	7	-3
Grade 4	5	2	-3	7	8	+1
	10	4	-6	6	6	0
	10	3	-7	10	8	-2
	9	3	-6	7	7	0
	5	6	+1	7	6	-1
	10	3	-7	10	8	-2
	8	3	-5	10	7	-3
	4	2	-2	6	8	+2
Middle-class,	8	2	-6	7	9	+2
White, Male,	10	0	-10	10	8	-2
Grade 6	10	3	-7	10	6	-4
	6	8	+2	5	8	+3
	10	7	-3	10	9	-1
	10	4	-6	10	10	0
	10	2	-8	10	7	-3
	6	3	-3	7	7	0
	10	6	-4	10	8	-2
	6	3	-3	8	10	+2

Classification	Physical Task			Intellectual Task		
	Asp.	Perf.	Disc.	Asp.	Perf.	Disc.
Lower-class,	10	6	-4	10	0	-10
White, Male,	3	4	+1	10	1	-9
Grade 2	8	0	-8	9	8	-1
	5	2	-3	6	8	+2
	4	2	-2	5	5	0
	5	5	0	7	4	-3
	5	6	+1	8	8	0
	10	6	-4	10	5	-5
	10	0	-10	10	7	-3
	10	3	-7	10	8	-2
Lower-class,	7	1	-6	8	6	-2
White, Male,	7	1	-6	6	9	+3
Grade 4	7	2	-5	10	10	0
	10	1	-9	6	2	-4
	10	3	-7	10	7	-3
	5	2	-3	5	8	+3
	8	1	-7	5	5	0
	9	2	-7	10	8	-2
	10	2	-8	10	7	-3
	10	8	-2	10	6	-4
Lower-class,	10	5	-5	10	10	0
White, Male,	10	5	-5	10	5	-5
Grade 6	10	4	-6	10	5	-5
	10	4	-6	10	3	-7
	10	3	-7	10	6	-4
	10	5	-5	6	0	-6
	10	4	-6	10	9	-1
	10	4	-6	5	2	-3
	5	2	-3	9	0	-9
	10	2	-8	10	8	-2

Classification	Physical Task			Intellectual Task		
	Asp.	Perf.	Disc.	Asp.	Perf.	Disc.
Middle-class,	10	3	-7	10	6	-4
Negro, Male,	4	1	-3	3	3	0
Grade 2	3	3	0	9	6	-3
	5	0	-5	10	8	-2
	4	0	-4	5	1	-4
	5	2	-3	7	7	0
	10	5	-5	10	6	-4
	10	7	-3	8	2	-6
	5	2	-3	10	8	-2
	5	4	-1	10	2	-8
Middle-class,	6	4	-2	5	7	+2
Negro, Male,	10	2	-8	5	4	-1
Grade 4	5	0	-5	5	5	0
	10	6	-4	10	2	-8
	10	1	-9	10	7	-3
	10	2	-8	10	5	-5
	10	6	-4	10	1	-9
	10	5	-5	9	8	-1
	5	5	0	10	4	-6
	10	4	-6	10	6	-4
Middle-class,	8	3	-5	6	9	+3
Negro, Male,	9	5	-4	10	6	-4
Grade 6	10	3	-7	5	8	+3
	6	3	-3	8	8	0
	5	3	-2	8	9	+1
	7	4	-3	7	9	+2
	10	1	-9	10	2	-8
	10	9	-1	10	2	-8
	10	6	-4	10	4	-6
	8	2	-6	8	9	+1

Classification	Physical Task			Intellectual Task		
	Asp.	Perf.	Disc.	Asp.	Perf.	Disc.
Lower-class,	10	4	-6	10	1	-9
Negro, Male,	10	6	-4	3	0	-3
Grade 2	10	4	-6	10	3	-7
	10	7	-3	10	4	-6
	5	0	-5	10	2	-8
	9	6	-3	10	0	-10
	10	3	-7	5	1	-4
	10	1	-9	10	9	-1
	3	4	+1	6	4	-2
	10	1	-9	10	7	-3
Lower-class,	10	5	-5	10	5	-5
Negro, Male,	4	7	+3	6	2	-4
Grade 4	10	4	-6	10	0	-10
	4	2	-2	5	4	-1
	10	4	-6	10	9	-1
	10	2	-8	10	7	-3
	10	2	-8	10	0	-10
	5	5	0	7	6	-1
	5	7	+2	10	4	-6
	10	4	-6	5	1	-4
Lower-class,	10	3	-7	7	2	-5
Negro, Male,	10	7	-3	10	10	0
Grade 6	10	2	-8	10	2	-8
	10	0	-10	3	1	-2
	10	4	-6	10	4	-6
	10	7	-3	5	8	+3
	10	6	-4	8	6	-2
	4	6	+2	5	7	+2
	8	6	-2	10	5	-5
	5	3	-2	10	10	0

Classification	Physical Task			Intellectual Task		
	Asp.	Perf.	Disc.	Asp.	Perf.	Disc.
Middle-class,	5	2	-3	6	10	+4
White, Female,	8	1	-7	6	8	+2
Grade 2	10	2	-8	10	6	-4
	5	1	-4	10	7	-3
	5	3	-2	9	10	+1
	9	3	-6	10	9	-1
	5	4	-1	10	10	0
	10	4	-6	10	9	-1
	10	0	-10	10	9	-1
	6	1	-5	10	9	-1
Middle-class,	10	3	-7	7	8	+1
White, Female,	10	2	-8	10	8	-2
Grade 4	10	2	-8	9	8	-1
	4	4	0	5	5	0
	5	2	-3	6	8	+2
	10	3	-7	10	7	-3
	5	0	-5	10	9	-1
	10	1	-9	10	8	-2
	10	2	-8	10	10	0
	7	1	-6	10	8	-2
Middle-class,	6	3	-3	5	7	+2
White, Female,	5	2	-3	7	6	-1
Grade 6	8	4	-4	7	8	+1
	7	3	-4	7	10	+3
	10	3	-7	7	10	+3
	6	4	-2	10	8	-2
	8	4	-4	10	10	0
	10	0	-10	10	8	-2
	10	2	-8	10	9	-1
	10	2	-8	7	8	+1

Classification	Physical Task			Intellectual Task		
	Asp.	Perf.	Disc.	Asp.	Perf.	Disc.
Lower-class,	5	5	-3	10	1	-9
White, Female,	10	0	-10	5	0	-5
Grade 2	10	2	-8	10	8	-2
	10	2	-8	10	4	-6
	10	4	-6	10	4	-6
	10	0	-10	7	6	-1
	9	1	-8	8	5	-3
	5	0	-5	6	7	+1
	3	5	+2	3	6	+3
	10	3	-7	10	7	-3
Lower-class,	5	3	-2	6	5	-1
White, Female,	5	0	-5	5	5	0
Grade 4	4	6	+2	6	5	-1
	10	2	-8	10	7	-3
	10	5	-5	10	7	-3
	10	2	-8	10	7	-3
	5	3	-2	8	9	+1
	4	2	-2	10	9	-1
	10	3	-7	10	7	-3
	10	5	-5	10	8	-2
Lower-class,	10	3	-7	10	10	0
White, Female,	10	4	-6	10	8	-2
Grade 6	5	6	+1	10	10	0
	5	2	-3	5	10	+5
	10	1	-9	10	9	-1
	6	0	-6	6	10	+4
	10	1	-9	10	7	-3
	10	3	-7	5	9	+4
	5	0	-5	4	9	+5
	6	1	-5	8	8	0

Classification	Physical Task			Intellectual Task		
	Asp.	Perf.	Disc.	Asp.	Perf.	Disc.
Middle-class,	10	4	-6	10	6	-4
Negro, Female,	5	2	-3	10	9	-1
Grade 2	4	1	-3	6	5	-1
	10	1	-9	10	9	-1
	10	0	-10	10	3	-7
	3	4	+1	5	7	+2
	10	2	-8	6	7	+1
	10	1	-9	10	6	-4
	10	0	-10	10	7	-3
	10	2	-8	10	8	-2
Middle-class,	8	1	-7	10	10	0
Negro, Female,	3	3	0	10	8	-2
Grade 4	5	2	-3	7	9	+2
	7	0	-7	10	6	-4
	10	5	-5	10	7	-3
	5	4	-1	5	10	+5
	10	3	-7	10	10	0
	6	1	-5	10	6	-4
	5	2	-3	10	10	0
Middle-class,	10	1	-9	10	10	0
Negro, Female,	9	3	-6	10	8	-2
Grade 6	10	2	-8	10	9	-1
	6	1	-5	8	10	+2
	10	0	-10	10	3	-7
	10	3	-7	10	10	0
	8	6	-2	10	7	-3
	3	4	+1	10	8	-2
	5	2	-3	10	9	-1
	10	1	-9	10	9	-1

Classification	Physical Task			Intellectual Task		
	Asp.	Perf.	Disc.	Asp.	Perf.	Disc.
Lower-class,	5	3	-2	3	7	+4
Negro, Female,	7	3	-4	10	3	-7
Grade 2	4	3	-1	4	0	-4
	5	7	+2	6	5	-1
	5	5	0	10	8	-2
	6	7	+1	10	8	-2
	3	3	0	6	4	-2
	4	3	-1	10	5	-5
	5	4	-1	10	0	-10
	10	1	-9	10	0	-10
Lower-class,	10	2	-8	10	6	-4
Negro, Female,	4	3	-1	5	8	+3
Grade 4	8	3	-5	10	8	-2
	5	1	-4	10	3	-7
	5	2	-3	5	9	+4
	5	4	-1	10	3	-7
	10	5	-5	7	5	-2
	10	2	-8	10	9	-1
	5	4	-1	9	2	-7
	5	0	-5	4	0	-4
Lower-class,	10	2	-8	10	5	-5
Negro, Female,	2	3	+1	4	2	-2
Grade 6	10	7	-3	8	8	0
	5	1	-4	5	3	-2
	5	5	0	10	0	-10
	9	2	-7	8	10	+2
	10	0	-10	5	10	+5
	5	1	-4	5	1	-4
	5	5	0	8	10	+2
	5	4	-1	10	8	-2