A STUDY OF THE RELATIONSHIP BETWEEN PRESCHOOL CHILDREN'S WILLINGNESS TO TRY DIFFICULT TASKS AND MATERNAL ATTITUDES TOWARD ACHIEVEMENT AND INDEPENDENCE

By

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TABLE OF CONTENTS

Chapter Page

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

Purpose of the Study

The purpose of this research is to investigate the relationship between preschool children's willingness to try difficult tasks and maternal attitudes pertaining to achievement demands and independence training. This study is seen as a possible contribution to the investigation of the development of creative ability.

Problem

There has been widespread interest in the identification of potentially creative children and in the investigation of factors which may influence the development of creative ability. Of special concern is the exploration of environmental factors which may affect the development of traits of creativity. Taylor and Barron (1963) have indicated that educators have limited knowledge about environmental influences on the development of creative ability. Taylor (1964) further states that recognition of creativity and characteristics of the creative person are not enough, that methods of encouraging its development must be identified. He lists the exploration of educational and environmental factors which influence the development of creativity as one of the most pressing research needs. Rogers (1959) emphasizes the importance of the investigation of the

process of creativity, the conditions under which the process occurs, and the ways in which it may be facilitated.

Willingness to try difficult tasks has been identified in a number of studies of creativity as a motivational characteristic of the creative person and has been chosen for study in the present research. Increased knowledge about the relationship of willingness to try the difficult in early childhood to maternal attitudes toward independence training and achievement demands may contribute to our understanding of the development of creative ability.

Maternal attitudes have been chosen for study for two reasons. First, the mother is generally accepted as being the dominating figure in the preschool child's life; therefore, her influence upon the child should be great enough to be evident despite other variables. Second, previous studies imply that the mother's demands for achievement and her granting of independence may have some bearing on the development of creative ability.

Procedure

The following steps were involved in this study:

1. A survey of the existing literature to gain an understanding of the relationship of willingness to try difficult tasks to creativity and an understanding of the effect of maternal attitudes toward achievement and independence upon child behavior.

2. Development of an instrument for the measurement of preschool children's willingness to try the difficult.

3. Selection and modification of a questionnaire for use in investigating maternal attitudes toward independence and achievement.

4. Administration of the instrument and the questionnaire to preschool children and their mothers.

5. Analysis of the data.

6. Interpretation of the results and recommendations for further study.

CHAPTER II

REVIEW OF LITERATURE

In the existing literature there is theoretical discussion of willingness to try the difficult as a motivational characteristic of the creative person, and there is research dealing with other personality characteristics closely related to willingness to try the difficult. Also, considerable research and discussion is concerned with the relationship of parental attitudes and home environments to development of creative ability.

Creativity and Willingness to Try the Difficult

Willingness to try the difficult has been described in the literature as a characteristic of the creative adult.

Rowan (1962), summarizing findings of the University of California Institute of Personality Assessment and Research, states that the creative person is willing to try anything, is unafraid of being wrong, and probably sets goals for himself far higher than anyone else would set for him.

McClelland (1963) characterizes the creative person as being willing to take calculated risks--that is, risks which are not sheer gambles depending on chance, but in which the person's own efforts will make a difference in the odds. The creative person gains more satisfaction from a task when he knows that success or failure depends on his own ability and efforts.

Torrance (1962) has studied creative individuals to determine their distinguishing characteristics. He describes the creative adult as one who has, throughout most of his life, tested the limits -- the limits of his own abilities, of his equipment and material resources, and of the situation. Torrance exemplifies a person who is creative as one who enjoys activities involving risk and strategy from an early age and welcomes a calculated risk. Torrance's studies of highly creative children indicate that they strongly desire to move far ahead of their classmates and are able to cope with failure and frustration.

Level of Aspiration and Need for Achievement

Level of aspiration and need for achievement are two characteristics which have been the foci of much research and which bear some relevance to the study of willingness to try the difficult.

McClelland (1958) and Atkinson (1958) have done extensive study of need for achievement and have discussed it in relation to risk-taking behavior. Their research has shown that a person with a high need for achievement will be motivated most strongly when his chances of success are 50-50, i.e., when the task is not so easy that he will receive no thrill or pride from achieving success, nor so hard that he will either not succeed or, if he does succeed, his success will be attributed to luck.

Research into need achievement has also shown that if a person with high need achievement is not offered a wide enough range of tasks to include both easy and hard, he will so lack in motivation that he will lose interest in attempting any of the tasks. Failure at a task which at first appears easy will increase the high need achiever's motivation,

since it increases the challenge in the situation. Failure at a difficult task reinforces his feeling that he cannot succeed at the task and thus decreases his motivation.

The person with great fear of failure, according to the research, responds quite differently to a choice between easy and difficult tasks. He will select either a very difficult task (in which failure will bring little embarrassment) or a very easy task (where success is almost assured). Failure at an easy task or success at a difficult task will decrease his motivation since either will increase his fear of failure.

Results of level of aspiration studies which drew much attention during the 1930's and 1940's also have relevance for the present research. These studies were focused on the behavior of an individual in response to success and failure.

Research by Anderson (1940) indicated that level of aspiration did not develop in the young child until he reached school age. Anderson measured level of aspiration in a game situation in which it was necessary for the child to understand and comply with the rules of the game if he was to demonstrate level of aspiration. This was impossible for the young child.

More recent research by Sears and Levin (1957) has shown that it is possible to measure level of aspiration in the very young child if a task is devised which is within his range of ability and which motivates him to make a discrete choice between different levels of ability.

Baldwin (1955) has accepted the small child's desire to do things for himself without help as evidence of a primitive level of aspiration. He points out that the toddler is motivated most strongly to perform a task when it first comes into the range of his ability and is still

difficult. Once he has mastered the task, he is not so easily motivated to perform it.

Research by Fales (1940) indicated that praising a young child's independence and otherwise training and encouraging independent behavior tends to increase the child's level of aspiration.

Relation of Parental Attitudes to Creativity

The effect of parental attitudes and the home environment on the development of certain motivational characteristics in children has been the subject of both theoretical discussion and extensive research.

Schachtel (1959) theorizes that parents who curb their child's exploratory drive interfere with the freedom of the child and strengthen the child's tendency to avoid the unknown and remain embedded in the familiar.

Getzels and Jackson (1962), in summarizing their various research findings, indicate that the parents of creative children want their children to be enthusiastic for life and to have varied interests. These parents permit individual divergence and the taking of risks in the home. They are less concerned about their children's behavior and academic performance than are other parents.

Taylor (1964), basing his comments on the findings of his own research and the research of others who have investigated creativity, has concluded that great responsibility for the development of creative attributes must be placed on the home environment. He states that the home situation definitely enhances or hinders the development of characteristics found to be predictors of creativity.

Winterbottom (1958), in studying children's need for achievement and maternal attitudes toward independence and mastery, found that mothers

of children with strong achievement motivation make demands earlier and place more restrictions on their children than do other mothers. Mothers of high need-achievers are more rewarding of their children's achievements and evaluate their achievements as higher than those of other children.

Torrance (1962), in his study of Jet Aces, found that "testing the limits" was an important part of their personalities. In studying this characteristic, he found that parents of these men had granted them independence at an early age and had allowed wide testing of limits as soon as the boys' abilities were adequate.

Torrance (1963), in a theoretical discussion of the development of creativity, lists the following influences in the early life of children as blocks to creative thinking: premature attempts to eliminate fantasy, restrictions on manipulativeness and curiosity, overemphasis or misplaced emphasis on sex roles, overemphasis on prevention of injury, misplaced emphasis on certain verbal skills, emphasis on destructive criticism, and coercive pressures from peers.

Measures of Parental Attitudes

Two major methods of measuring parental attitudes, questionnaires and direct observations, have been employed in previous research. Two questionnaires dealing specifically with parental attitudes toward achievement and independence are especially relevant to this study. They are the Parental Developmental Timetable developed by Torgoff (1958) and an open-end questionnaire devised by Winterbottom (1958).

The Parental Developmental Timetable developed by Torgoff is a questionnaire measuring two areas of parental training: (1) the inducing

of children to take on and master tasks which are, in the parents' opinions, appropriate to the children's maturity level and (2) the granting or withholding of independence from the child. Research by Torgoff with this questionnaire indicated that achievement inducing beliefs and independence granting beliefs are independent of one another. He further discovered that there is no direct relationship between the parents' overt behavior toward the child and their beliefs concerning the age at which children are ready for various tasks and privileges. Other factors, such as conflicting beliefs and pressure of events, evidently force parents to act in ways which are often not congruent with their beliefs.

The Winterbottom questionnaire focuses on maternal attitudes toward demands for independence and mastery. This questionnaire consists of a list of independence and mastery behaviors which the mother might consider as goals of her training. The questionnaire also contains a section relating to mothers' opinions of their children's accomplishments in comparison to other children, and a section concerning the types of rewards and punishments the mothers use in training their children. Winterbottom found a relationship between maternal attitudes and children's achievement motivation.

Measures of Willingness to Try the Difficult

Several instruments for measuring preschool children's willingness to try difficult tasks have been developed by Starkweather (1964). For each instrument there is an objective measure of the child's ability in order that he may be offered a choice of tasks which are easy and difficult for him in relation to his own ability. The difficulty of each task is obvious to the child and he sees himself as responsible for his own

success or failure. Environmental factors of the experimental situation are controlled insofar as possible in order that the influence of such factors on the strength of potential success or failure be held to a minimum.

One of these instruments, a buttoning task, is based on fine motor coordination. Another, a puzzles task, is based on the ability to see visual relationships. A third instrument, a target game based on gross motor skill, has been developed as a part of the present research and will be used with the other two instruments in the larger study of willingness to try the difficult.

Pilot work with these instruments has shown that measurement of preschool children's willingness to try the difficult is possible, and that there are wide individual differences in children's willingness to try difficult tasks.

Implications for this Research

Willingness to try the difficult has been described in the theoretical literature as a motivational characteristic of creativity. Research undertaken to identify characteristics of creative individuals has supported this theory.

A survey of research concerning the effect of parental attitudes on child behavior and development has revealed definite implications that parental beliefs concerning achievement training and independence granting are closely related to the development of certain motivational characteristics, among them willingness to try the difficult. Further research in this area is needed.

Questionnaires and direct observations are two major methods which have been used in the measurement of parental attitudes. Both of these methods can be used in the present research. Questionnaires, which are less time consumming, are the more feasible; however, direct observation in a highly structured situation will also be used.

Two questionnaires, the Torgoff Timetable and the Winterbottom Questionnaire, are the most relevant for the study of attitudes toward achievement and independence and will be adapted for use in the present study.

An instrument based on gross motor skill will be used in the study of preschool children's willingness to try difficult tasks. This instrument will be a target game developed according to the criteria described by Starkweather (1964).

CHAPTER III

METHOD AND PROCEDURE

The purpose of this research is to study the relationship between preschool children's willingness to try difficult tasks and maternal attitudes toward achievement demands and independence training.

Willingness to try the difficult is measured in this study by a target game developed as a part of the research. Maternal attitudes toward independence and achievement are measured by a questionnaire adapted from the Torgoff Parental Developmental Timetable (1958) and the Winterbottom questionnaire (1958).

This chapter will include the following: (1) a description of the subjects who participated in the study, (2) a discussion of the new development of the instrument, (3) the adaptation of the questionnaires, (4) a review of the procedure and scoring, and (5) recommendations for analysis of the data.

Subjects

The subjects for this research were 52 preschool children and their mothers from the surrounding community. The age range was from three years and no months through five years eleven months, and the subjects were selected in such a way that boys and girls were equally distributed throughout the age range. All the children were American Caucasians, and the majority were in attendance at nursery schools or kindergartens.

Development of the Instrument

The research instrument developed to measure preschool children's willingness to try difficult tasks was a target game based on gross motor skill. Criteria for the instrument were the same as those suggested by Starkweather (1964). (See page 9.)

Pilot Work

Step 1.- Pilot work began with a target game in which the child rolled a ball into a box. Boxes and balls of various sizes were tried in order to determine the best size for the target and ball. The size of the ball or the target proved not to be a problem; however, a major problem did become evident during the pilot work. The children were more interested in chasing the ball than in rolling it into the box. A "responsive" target of some type was needed if the children were to be motivated to play the game in a way that would reveal their willingness to try the difficult.

Step 2.- A "responsive" target, one that would move when struck by the ball, was then developed. This consisted of a frame from which a wooden figure, e.g., a snowman or an animal, was hung. When hit by the ball, the figure would swing on the frame.

Pilot work with this instrument solved some problems and revealed other problems. (1) Some of the children, especially the younger ones, were inclined to move closer to the target when it was placed at a distance. This problem was solved by outlining a square on the floor with masking tape. This provided a "boundary line" which was easily understood by the children. (2) A record of the skill demonstrated by nineteen children provided the necessary information for adjusting the game to the ability

of the individual child. A range of possible distances from one foot to at least ten feet would provide easy and difficult targets for children of different abilities. A pretest of each child's ability would determine the distance at which the easiest target should be placed. Other target distances would be set at two foot intervals from that point. In this way the five levels of difficulty could be adjusted to the ability of each child. (3) The three-inch rubber balls used in this pilot work were of a good size for the children to grasp and were heavy enough to move the target figure when they hit it. (4) Although the children enjoyed the "responsive" target, it did not hold their interest long enough to complete the testing session.

Step 3.- A target with a "surprise element" was then constructed. This target proved to be satisfactory and became the final research instrument. (See Figure 1.)

The Final Research Instrument

The final research instrument was a box-shaped target which responded somewhat like a Jack-in-the-box. When a bull's-eye at the front of the target was struck by the ball, the lid opened and a "surprise" picture was seen. This picture was removable, and when it had been seen by the child it was replaced by another "surprise" picture. In this way, each time a child hit the bull's-eye he saw a different picture. In all, twenty pictures for each game and two pictures for use in the pre-test sessions were made. These pictures were simple nursery or animal figures and were copied from coloring books. (See Figure 2.)

The target distances, i.e., the five levels of difficulty, were set for each child by a strip of cloth on which two-foot intervals were marked.

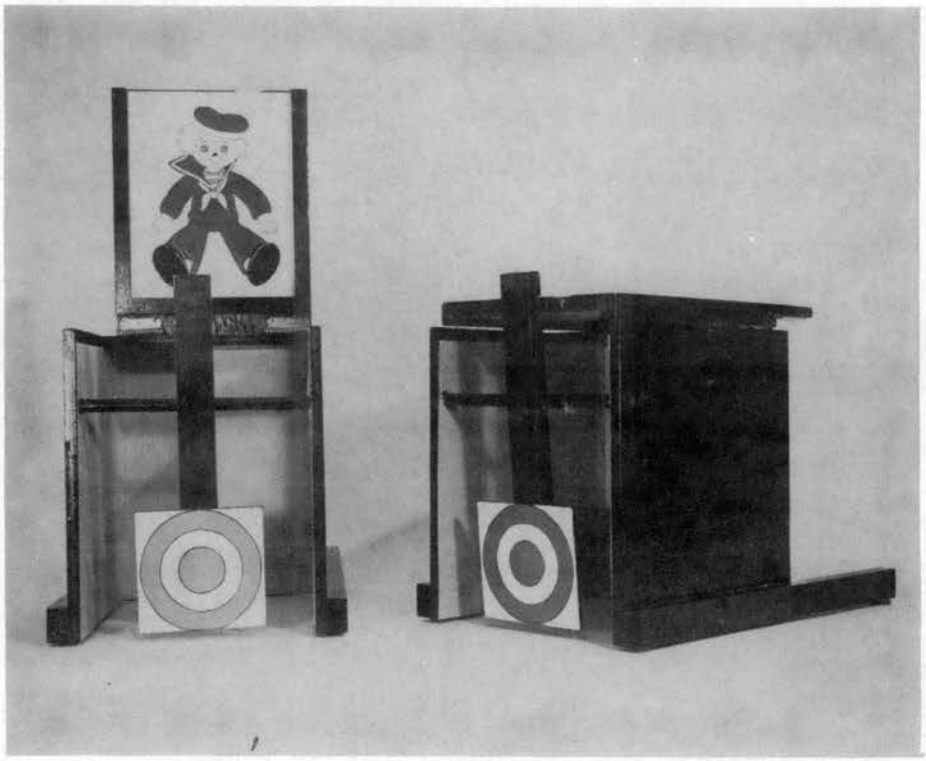

Figure 1. The targets developed for use in measuring preschool children's willingness to try difficult tasks.

Figure 2. Six of the "surprise" pictures made for use in the target game.

The cloth strip could be placed so that the first target would be one, two, or three feet from the child depending on his ability group.

The child chose between two designated target distances, one relatively easy and the other relatively hard. Small markers, a blue one with the letter "E" painted on it and a red one with the letter "H" on it, were used to indicate the two distances between which the child made his choice. The target was then placed at the distance he selected. (See Figure 3.) The sequence of the paired levels of difficulty which were offered to the child is indicated on the score sheets in Appendix A. On the score sheets, "A" represents the easiest level or target distance and "E" represents the hardest level or farthest target distance.

Pilot work with this instrument suggested the following adjustments for ability: For Group I, the most skilled, the first target should be placed three feet from the child with the remaining targets at two-foot intervals beyond this, which would place the most difficult target eleven feet from the child. For Group II, the first target should be at two feet, with the remaining targets at four, six, eight, and ten feet. For Group III, the least skilled group, the first target should be at one foot and the most difficult target at nine feet.

Measurement of Maternal Attitudes

The questionnaire used in the present research was adapted from the Torgoff Parental Developmental Timetable and the Winterbottom questionnaire. Exploratory use of the Torgoff Timetable indicated that several of the statements were difficult for the mothers to understand, and that three statements which dealt specifically with adolescents should be deleted and statements more appropriate for young children inserted.

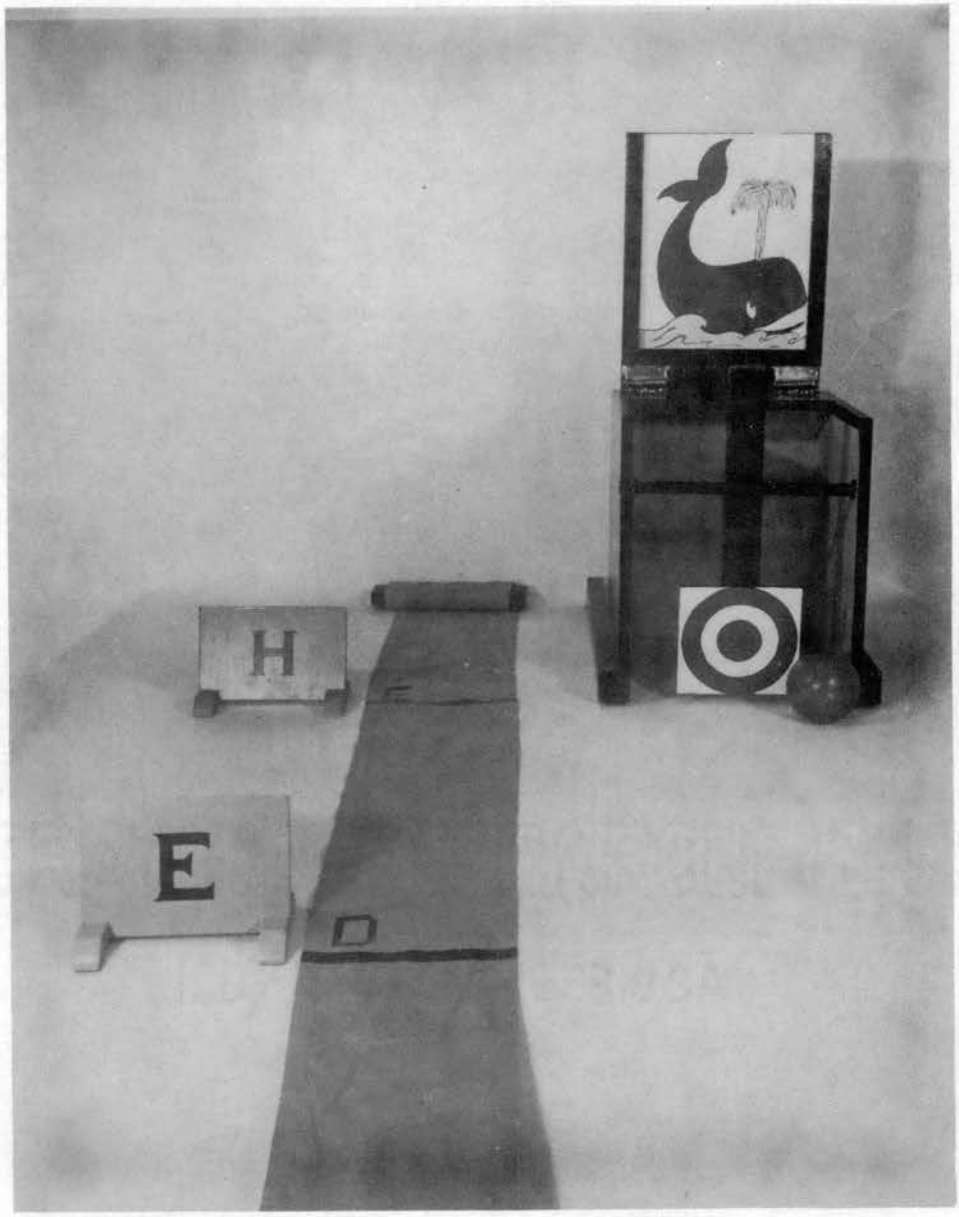

Figure 3. The target game used to measure preschool children's willingness to try difficult tasks.

The complete apparatus for the target game included the target, a three-inch rubber ball, the cloth strip used to mark the target distances the two markers used to indicate the possible choices, and twenty-one "surprise" pictures for each game.

The Questionnaire was therefore modified by rewording seven of the statements and by replacing the adolescent directed statements with statements adapted from the Winterbottom questionnaire. Specifically, the statements which were reworded were numbers 1, 14, 20, 30, 37, 43, and 48, and the inserted statements were numbers 24, 31, and 46 in the questionnaire as it appears in Appendix B.

The final questionnaire (See Appendix B) consisted of 48 statements, 24 dealing with independence training and 24 dealing with achievement demands. Each statement was followed by two blanks. In the first blank the mother indicated the age at which the statement would be appropriate for most children; in the second blank she indicated the appropriate age for her own child.

Procedure

Each mother brought her child to the research laboratory where she was met by the experimenter. No one else was present during the testing. The task was explained to the mother and child, and the mother was allowed to watch while the child was tested to determine his ability group.

The test of ability consisted of having the child roll the ball at the target ten times, twice at each of five different distances. The closest distance was one foot from the child, and each succeeding distance was two feet farther away. A simple count of the child's successes determined his ability group. Two or three successes placed him in the low ability group, Group III; four or five successes placed him in the middle group, Group II; and six or more successes placed him in the Skilled group, Group I. The cloth strip was then adjusted to indicate the distances appropriate for the child's ability group.

The game was then played with the mother choosing the distances at which the target should be placed for the child. The mother was asked to make a choice between two different distances at which the target might be placed. The experimenter specifically referred to these two distances as "easy" and "hard." The target was placed at the distance chosen by the mother, and the child was allowed two tries to hit the target. If the child hit the target, the "surprise" picture was revealed, and a new picture was then placed in the target for the next try. If the child failed to hit the target after two attempts, the target remained closed and the same picture was left in place for the next try. Each of the five target distances, from easiest to hardest, was paired with every other distance twice in succession, making a total of twenty choices in one game.

When one game of twenty choices was completed, the questionnaire was explained to the mother and she was shown into an adjoining room, out of sight and sound of the research laboratory, where she worked on the questionnaire. Some mothers completed the questionnaire at this time; others found it necessary to take it home to finish. All were cautioned not to discuss the questions with anyone before answering them.

While the mother was working on the questionnaire, the experimenter played the game with the child alone. Procedure for playing was the same as with the mother except that the child chose between the "easy" and the "hard" for himself.

Scoring of the Instrument

The raw data provided by the target game were the levels of difficulty, i.e., the target distances, that were chosen for each game and

the number of successes and failures the child experienced at each level of difficulty. From these data the following scores were derived: (1) an Ability Score and an Adjusted Ability Score, (2) a Play Score, (3) a Success Score, and (4) a W.D. Score.

The Ability Score and the Adjusted Ability Score both indicate the child's skill in the game. The Ability Score indicates the level at which the child has a 50 per cent chance of success. For each level the number of successes is divided by the total number of trials, i.e., successes and failures, at that level. For child F - 665, (See Table I), the Ability Score is 2.17, indicating a point somewhat beyond the second target distance (Level B) at which she would have a 50 per cent chance of success.

$$\text{Ability} = \frac{6}{6+2} + \frac{4}{4+10} + \frac{2}{2+0} + \frac{1}{1+6} = 2.17$$

The Adjusted Ability Score indicates the distance in feet at which the child has a 50 per cent chance of success. This score is figured in the following manner: The interval between targets (two feet) is multiplied by the Ability Score minus one, and to this is added the distance to the first target. For child F - 665, who is in Group II, the Adjusted Ability Score is 4.34 feet, indicating the mean distance at which she would have a 50 per cent chance of success.

$$\text{Adjusted Ability Score} = 2(2.17 - 1) + 2 = 4.34.$$

The Play Score indicates the level of difficulty at which the game was played, i.e., the mean distance at which the child chose to play the game. The Play Score is figured from weighted scores assigned to each

TABLE I

RAW DATA AND COMPUTED SCORES FOR CHILD F - 665* IN ABILITY GROUP II.

Level of Difficulty (Weighted Score)	Number of Times Chosen	Number of	
		Successes	Failures
E (5)	0	0	0
D (4)	4	1	6
C (3)	2	2	0
B (2)	8	4	10
A (1)	6	6	2

Ability Score = 2.17

Adjusted Ability Score = 4.34 feet

Play Score = 2.30

Success Score = 2.75

W.D. Score = -0.45

*See Score Sheet in Appendix A.

level of difficulty, weights of one to five for levels A to E. The Play Score is the sum of the weighted scores multiplied by the number of times each level was chosen, divided by 20 (the total number of choices made by the child). For child F - 665, the Play Score is 2.30, indicating a mean distance between levels B and C at which she chose to play the game.

$$\text{Play Score} = \frac{1(6) + 2(8) + 3(2) + 4(4) + 5(0)}{20} = 2.30$$

The Success Score indicates the level at which the child sees himself as successful, i.e., the mean distance at which the child perceives his successes. This score is the sum of the number of successes at each level divided by the number of times each level was chosen. This score is based on the assumption that the child perceives a success whether he uses one or two balls to hit the target. For child F - 665, the Success Score is 2.75, indicating a distance between levels B and C at which she would perceive herself as succeeding 50 per cent of the time.

$$\text{Success Score} = 6/6 + 4/8 + 2/2 + 1/4 = 2.75.$$

The W. D. Score indicates the child's willingness to try the difficult, i.e., the relationship between his Play Score and his Success Score. The W.D. Score is figured by subtracting the Success Score from the Play Score. For child F - 665, the W.D. Score is -0.45, indicating that she chose to play the game at a relatively easy level.

$$\text{W.D. Score} = 2.30 - 2.75 = -0.45.$$

Scoring of the Questionnaire

The raw data provided by the questionnaire were the ages at which the mother believed the statements to be appropriate for most children and the ages at which the mother believed the statements to be appropriate for her own child. From these data, two A/I Scores were obtained, one indicating the mother's attitude toward the training of most children and the other indicating her attitude toward the training of her own child relative to the training of most children.

The steps involved in calculating the A/I Score as related to most children were as follows: (1) For each item the ages indicated as appropriate for most children were ranked. Each mother's responses were then transposed to rank scores. (2) The rank scores for achievement statements and the rank scores for independence statements were totaled separately. (3) The sum of the achievement ranks was then divided by the sum of the independence ranks, yielding the A/I Score.

The A/I Score indicates the relation between achievement demands and independence granting. A mother with a low A/I Score would expect achievement of children sooner than most mothers and would grant independence later than most mothers. A mother with a high A/I Score would grant independence earlier than most mothers and would expect achievement later than most mothers.

The steps involved in calculating the A'/I' Score, indicating the mother's attitude toward the training of her own child relative to the training of most children, were as follows: (1) For each statement the mother was given a plus-one if she had indicated a more advanced age for her child than she did for most children, and a minus-one if the age for her own child was less than the age she had given for most children.

(2) The scores for the achievement statements and the scores for the independence statements were totaled separately, and a constant of 20 was added to each in order to eliminate negative scores. (3) The resulting score for achievement was then divided by the score for independence, yielding the A'/I' Score.

The A'/I' Score indicates the relation between the mother's attitude toward the training of most children and her attitude toward the training of her own child. Thus, the mother with a low A'/I' Score expressed a belief in controlling her own child by expecting him to achieve earlier than most children and by granting him independence later than most children. The mother with a high A'/I' Score expressed a belief in greater freedom for her child by granting him independence earlier than most children and by expecting him to achieve later than most children.

Recommended Analysis

1. The reliability of the instrument should be determined by means of a split-half correlation.

2. The adjustment for ability should be examined to see if there is adequate adjustment to offer all children in the study an equal opportunity to choose between the easy and the difficult relative to their own abilities.

3. The W.D. Scores should be examined to see if they are really more accurate than the Play Scores as a measure of the children's willingness to try the difficult.

4. Maternal attitudes and mothers' Play Scores should be compared to see if there is any relationship between the mothers' expressed

beliefs, i.e., their scores on the questionnaire, and their actual overt behavior in the game situation.

5. Mothers' Play Scores and Children's Play Scores should be analyzed to see if there is a relationship between the goals a mother sets for her child and the goals he sets for himself.

6. Children's Play Scores and mothers' A/I Scores should be analyzed to see if a relationship exists between children's willingness to try the difficult and maternal attitudes toward achievement and independence.

7. Mothers' A'/I' Scores should be analyzed to see if the mothers' attitudes toward the training of their own children have any significant relation to the goals they set for their children or the goals the children set for themselves.

CHAPTER IV

RESULTS

The purpose of this research was to study the relationship between preschool children's willingness to try difficult tasks and maternal attitudes toward achievement and independence. A target game based on gross motor skill was developed for use with the preschool children, and a questionnaire for use in measuring maternal attitudes toward achievement and independence was adapted from the Torgoff Parental Developmental Timetable and the Winterbottom questionnaire.

The data analyses in this chapter include: (1) the reliability of the target instrument; (2) the adjustment of the target instrument for the ability of the individual children, and age and sex differences in ability; (3) validity of the W.D. Scores; (4) age, sex, and ability differences in Play Scores; the relation between the mothers' and the children's Play Scores; and the relation between the Play Scores and the Success Scores; (5) age, sex, and ability group differences in A/I Scores; the relation of the A/I Scores to the Play Scores, and an examination of the A'/I' Scores. (Median scores by age, sex, and ability group are presented in Table II. Data for individual children are presented in Appendix C.)

Reliability of the Instrument

The internal consistency of the instrument was determined by means of a split-half correlation using the Spearman-Brown formula. For this

TABLE II

MEDIAN SCORES OBTAINED IN A STUDY OF CHILDREN'S WILLINGNESS TO TRY DIFFICULT TASKS, BY AGE, SEX, AND ABILITY GROUP. (N = 52)

Groups	Adjusted Ability Score (in feet)	Child's Target Game			Mother's Target Game			Mother's Scores on Questionnaire	
		Play Score	Success Score	W.D. Score	Play Score	Success Score	W.D. Score	A/I	A'/I'
Age Differences									
5:0 - 5:11	5.88'	3.00	3.84	-0.65	3.40	3.99	-0.44	1.02	0.84
4:0 - 4:11	4.85'	2.53	3.13	-0.54	3.38	3.19	+0.09	0.95	0.75
3:0 - 3:11	4.04'	2.25	2.78	-0.46	3.01	2.92	+0.16	0.94	0.62
Sex Differences									
Boys	5.25'	2.68	3.51	-0.55	3.20	3.34	-0.04	1.08	0.79
Girls	4.31'	2.33	3.13	-0.53	3.15	3.03	+0.19	0.89	0.72
Ability Groups									
Group I	5.96'	2.55	3.53	-0.76	3.25	2.47	+0.02	1.08	0.78
Group II	4.25'	2.55	2.85	-0.35	3.13	3.13	+0.13	0.91	0.78
Group III	4.04'	2.25	3.17	-1.08	3.10	3.20	+0.10	0.93	0.52

analysis, the sums of alternate choices were used; specifically, the sum of the first choices in the odd numbered presentations and the second choices in the even numbered presentations was correlated with the sum of the second choices in the odd numbered presentations and the first choices in the even numbered presentations.

The choices of the 52 children in the study yielded a correlation of 0.876 ($p < .01$), indicating that the instrument was reliable, i.e., had internal consistency.

Adjustment for Ability

An adjustment for ability was planned in order that both the skilled and the unskilled children could be offered easy and difficult choices relative to their abilities. If this adjustment was adequate, there should be no significant difference in the Ability Scores of the children in the three ability groups.

The median Ability Scores of the children in these groups were as follows: Group I = 2.48; Group II = 2.13; Group III = 2.52. An analysis of the data showed no significant difference in the Ability Scores of the three groups. (Kruskal-Wallis one-way analysis of variance: $H = 1.608$; n.s.)

The adjustment for ability was also examined by comparing the Adjusted Ability Scores (expressed in feet) of the three ability groups. If the adjustment for ability was adequate, these Adjusted Ability Scores should be significantly different for the three groups.

The median Adjusted Ability Scores for the three groups were as follows: Group I = 5.96 feet; Group II = 4.25 feet; Group III = 4.04 feet. An analysis of the data showed that there was a significant difference in the Adjusted Ability Scores of the three groups. (Kruskal-Wallis one-way analysis of variance: $H = 18.212$; $p < .001$)

Sex and Age Differences in Ability

Sex and age differences in ability were determined by an analysis of the Adjusted Ability Scores of the children.

The median Adjusted Ability Scores of the three age groups were as follows: Five-year-olds = 5.88 feet; Four-year-olds = 4.85 feet; Three-year-olds = 4.04 feet. An analysis of the data indicated that there was a significant difference in the ability of the children in the three age groups. Five-year-olds were more skilled than four-year-olds, and four-year-olds were more skilled than three-year-olds. (Kruskal-Wallis one-way analysis of variance: $H = 15.666$; $p < .001$.)

The median Adjusted Ability Scores for boys and girls were as follows: Boys = 5.25 feet; Girls = 4.31 feet. An analysis of the data indicated that boys were significantly more skilled than girls. (Mann-Whitney U test: $U = 220$; $p < .02$.)

Rejection of the W.D. Scores

The W.D. Score is based on the assumption that the successes the child has in hitting the target are taken into consideration in goal-setting; therefore, the W.D. Score should be a more accurate and refined measure of the child's willingness to try the difficult than the Play Score. If this assumption is not true, then the W.D. Score is of no value in further analysis of the data, and the Play Score should be used instead.

If the W.D. Score is valid, then the frequency and distribution of positive and negative W.D. Scores should be the same for children with high and low Success Scores and should be the same for children in different age groups.

The frequency of positive and negative W.D. Scores in the mothers' target game for children with high and low Success Scores is shown in Table III. A Chi Square analysis indicated a significant relationship between Success Scores and W.D. Scores (Chi Square = 27.916; $p < .001$). Mothers set relatively easy goals for children whose Success Scores were above the median, and they set relatively difficult goals for children whose success scores were below the median. A median test showed this same relationship to exist between the Success Scores and the W.D. Scores for the children's target game (Chi Square = 17.307; $p < .001$). The frequency of these scores above and below the median is shown in Table IV.

The frequency of positive and negative W.D. Scores in the mothers' target game for children in the three age groups is shown in Table V. A Chi Square analysis indicated a significant relationship between the three age groups and the W.D. Scores (Chi Square = 11.29; $p < .01$). Mothers set relatively difficult goals for younger children and relatively easy goals for older children.

The median scores for both target games, the mothers' and the children's, are shown in Table VI. The direction of the relationship between the Play Scores and the W.D. Scores is the same for the children as for the mothers.

Apparently, neither the mothers nor the children take the observed successes into consideration in setting goals; therefore, the W.D. Score is not a more accurate and refined measure of goal-setting behavior than the Play Score, and the Play Scores will be used in subsequent analyses in this research.

TABLE III

FREQUENCY OF POSITIVE AND NEGATIVE W.D. SCORES OBTAINED IN THE MOTHERS' TARGET GAME BY CHILDREN WITH HIGH AND LOW SUCCESS SCORES.(N = 52)

Success Score	W.D. Score		Total
	Negative	Positive	
Above Median	21	5	26
Below Median	2	24	26
Total	23	29	52

Chi Square = 27.916; $p < .001$.

TABLE IV

FREQUENCY OF W.D. SCORES ABOVE AND BELOW THE MEDIAN OBTAINED IN THE CHILDREN'S TARGET GAME BY CHILDREN WITH HIGH AND LOW SUCCESS SCORES. (N = 52)

Success Score	W.D. Score		Total
	Above Median	Below Median	
Above Median	5	21	26
Below Median	21	5	26
Total	26	26	52

Chi Square = 17.307; $p < .001$.

TABLE V

FREQUENCY OF POSITIVE AND NEGATIVE W.D. SCORES OBTAINED IN THE MOTHERS' TARGET GAME BY CHILDREN IN THREE AGE GROUPS. (N = 52)

Age Group	W.D. Score		Total
	Negative	Positive	
5:0 - 5:11	12	4	16
4:0 - 4:11	7	11	18
3:0 - 3:11	4	14	18
Total	23	29	52

Chi Square = 11.29; $p < .01$.

TABLE VI

MEDIAN W.D. SCORES AND PLAY SCORES BY AGE GROUPS FOR THE MOTHERS' AND CHILDREN'S TARGET GAMES.

Age Group	Target Game			
	Mothers'		Children's	
	W.D. Score	Play Score	W.D. Score	Play Score
5:0 - 5:11	-0.44	3.40	-0.65	3.00
4:0 - 4:11	+0.09	3.38	-0.54	2.53
3:0 - 3:11	+0.16	3.01	-0.46	2.25

Play Scores

The Play Scores, indicating the levels of difficulty which were chosen for playing the games, were analyzed for differences between sexes, age groups, and ability groups, and to explore the relationships with other scores.

Play Scores in the Mothers' Target Game

The Play Scores in the mothers' target game indicate the level the mothers chose to have their children play the game. These scores were examined for differences between boys and girls, between age groups, and between ability groups.

The median Play Scores for mothers of boys and girls were as follows: Boys = 3.20; Girls = 3.15. An analysis of the data indicated that there was no significant difference between the Play Scores mothers set for girls and those they set for boys. (Mann-Whitney U test: $U = 319.5$; n.s.)

The median Play Scores for mothers of children in the three age groups were as follows: Five-year-olds = 3.40; Four-year-olds = 3.38; Three-year-olds = 3.01. An analysis of the data indicated that there was a significant difference between the Play Scores for children in the different age groups. Mothers set higher Play Scores for five-year-olds and four-year-olds than they did for three-year-olds. (Kruskal-Wallis one-way analysis of variance: $H = 7.818$; $p < .05$.)

The median Play Scores for mothers of children in the three ability groups were as follows: Group I = 3.25; Group II = 3.13; Group III = 3.10. An analysis of the data indicated that there were no significant

differences between the Play Scores mothers set for children in the three ability groups. (Kruskal-Wallis one-way analysis of variance: H = 2.618; n.s.)

Summary.- An analysis of the data indicated that Play Scores in the mothers' target game were significantly higher for the older children than for the younger children. There were on significant differences between the Play Scores mothers set for boys and girls or for the children in different ability groups.

Play Scores in the Children's Target Game

The Play Scores in the children's target game indicate the level at which the children chose to play the game. These scores were examined for differences between boys and girls, between age groups, and between ability groups.

The median Play Scores obtained in the children's target game for boys and girls were as follows: Boys = 2.68; Girls = 2.33. An analysis of the data indicated that boys had significantly higher Play Scores than girls. (Mann-Whitney U test: U = 201; $p < .01$.)

The median Play Scores for children in different age groups were as follows: Five-year-olds = 3.00; Four-year-olds = 2.53; Three-year-olds = 2.25. An analysis of the data indicated that there was a significant difference between the children's Play Scores in the three age groups. Five-year-olds had higher Play Scores than four-year-olds and four-year-olds had higher scores than three-year-olds. (Kruskal-Wallis one-way analysis of variance: H = 12.07; $p < .01$.)

The median Play Scores for children in the three ability groups were as follows: Group I = 2.55; Group II = 2.55; and Group III = 2.25. An

analysis of data indicated that there was a tendency for the least skilled children (Group III) to have lower Play Scores than the more skilled children (Groups I and II). (Kruskal-Wallis one-way analysis of variance: $H = 5.345$; $p < .10$)

Summary.- An analysis of the data indicated that Play Scores in the children's target game were significantly higher for boys than for girls. Boys were more willing to try the difficult than were the girls. Significant differences were also found between the Play Scores for children in the different age groups. Older children were more willing to try the difficult than were younger children. An analysis of the Play Scores for children in the different ability groups indicated that the least skilled children tended to be less willing to try the difficult than were the more skilled children.

Relation Between Play Scores in the Two Target Games

Play Scores in the mothers' target game and in the children's target game were compared. Forty-three of the fifty-two mothers set higher goals for their children than the children set for themselves. The median Play Score for the mothers was 3.18 and for the children was 2.50. An analysis of the data indicated that mothers set significantly higher goals for children than the children set for themselves. (Chi Square = 22.231; $p < .001$.)

Further analysis of the Play Scores in the two target games indicated that there was no correlation between the goals set by the mothers and the goals set by the children. (Spearman rank correlation coefficient = + 0.219; n.s.)

Summary.- A comparison of the mothers' Play Scores and the children's Play Scores indicated that mothers set higher goals for children than children set for themselves, but that no correlation existed between these scores.

Relation of Play Scores to Success Scores

Neither mothers nor children considered the child's level of success when setting Play Scores. (See Rejection of W.D. Scores, page 29.) The data indicated that relatively easy goals were set for children with high success scores and relatively difficult goals were set for children with low Success Scores.

To complete the picture of this relationship, correlations between the Play Scores and the Success Scores were figured. Positive correlations were obtained for the data from both the target games. The Spearman rank correlation coefficient was $+0.468$ ($p < .001$) for the mothers' target game, and was $+0.539$ ($p < .001$) for the children's target game. These correlations indicate that high goals were chosen for children who had high Success Scores and low goals were chosen for children who had low Success Scores. This positive correlation between the Success Scores and the Play Scores and the negative relation found between Success Scores and Play Scores when the relative difficulty of the goal was considered are represented schematically in Figure 4.

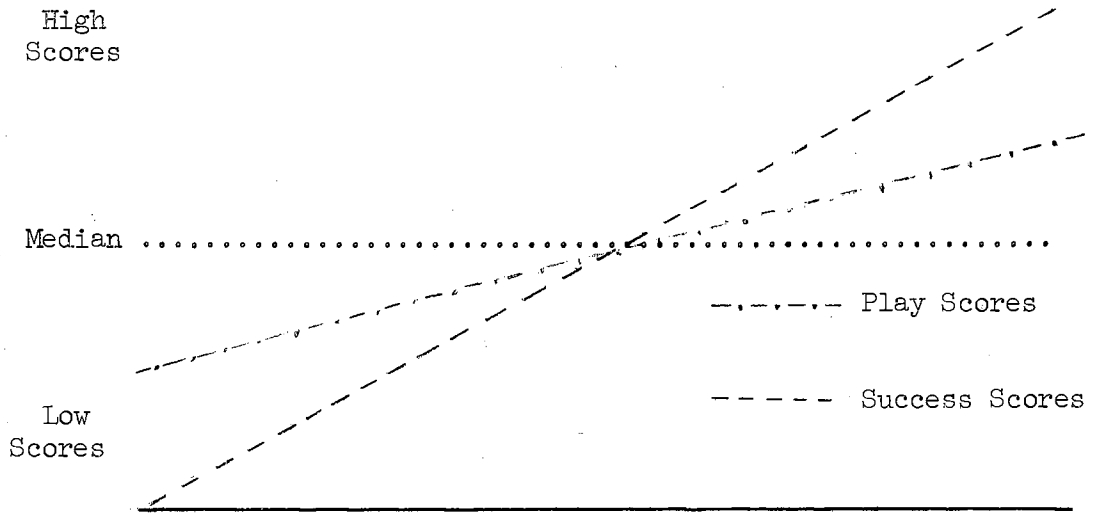

Figure 4. Schematic representation of the relation between the Play Scores and the Success Scores.

A/I Scores

The A/I Scores represent the relationship between the mothers' attitudes toward achievement demands and independence granting for most children. A low A/I Score indicates that the mother would demand achievement relatively early and grant independence relatively late. A high A/I Score indicates a mother who believes in "freeing" children by granting them independence relatively early and demanding achievement relatively late.

Because differences in age groups, sex, and ability groups were apparent in the scores from the target games, the A/I Scores were analyzed for similar differences.

The median A/I Scores for mothers of boys and mothers of girls were as follows: Boys = 1.08; Girls = 0.89. An analysis of the data indicated that mothers of boys had significantly higher A/I Scores than did the

mothers of the girls. (Chi Square = 6.231; $p < .02$.) The raw data showed this difference to be most marked for the three-year-old children.

The median A/I Scores for mothers of children in the three age groups were as follows: Five-year-olds = 1.02; Four-year-olds = 0.95; Three-year-olds = 0.94. There were no significant differences among these age groups.

The median A/I Scores for mothers of children in the three ability groups were as follows: Group I = 1.08; Group II = 0.91; Group III = 0.93. There were no significant differences among these ability groups.

Summary.- An analysis of the A/I Scores indicated that there was a significant difference between the A/I Scores for mothers of boys and mothers of girls. The mothers were more controlling of girls, especially of the three-year-old girls. No significant differences were found in the A/I Scores for the three age groups and the three ability groups.

Relation of A/I Scores and Play Scores in the Mothers' Target Game

If the mothers actually exhibited behavior similar to their stated attitudes, then there should be a significant correlation between the mothers' A/I Scores, representing their attitudes toward achievement and independence, and their Play Scores, representing the degree of achievement they demanded of their children in the target game.

Correlations between the mothers' A/I Scores and their Play Scores were figured. The Spearman rank correlation yielded a coefficient of -0.167, indicating that there was no significant correlation between these scores.

Relation of A/I Scores and Play Scores in the Children's Target Game

If the mothers' attitudes concerning achievement demands and independence granting had an influence on the children's desire to achieve and willingness to try the difficult, then there should be a significant correlation between the mothers' A/I Scores and the children's Play Scores.

Correlations between the mothers' A/I Scores and the children's Play Scores were figured. The Spearman rank correlation yielded a coefficient of +0.221, indicating that there was no significant correlation between these scores.

Summary.- Correlations between the mothers' A/I Scores and the Play Scores in the two target games were figured. No significant relationships were found.

A'/I' Scores

The A'/I' Scores indicate the mothers' attitudes toward the training of their own children in relation to the training of most children. These scores were included in the study because of the possibility that mothers might have different expectations for their own children than they have for most children.

Forty-two of the fifty-two mothers did indicate different attitudes toward the training of their own children than they did toward the training of most children. However, when A'/I' Scores were analyzed, no significant relationships were found between these scores and any other scores.

Summary of the Results

The study of the relationship between preschool children's willingness to try difficult tasks and maternal attitudes toward achievement and independence revealed the following findings:

1. A target game, developed for measuring preschool children's willingness to try the difficult, was reliable and could be adjusted for ability so that every child in the study had an equal opportunity to choose between the easy and the difficult relative to his ability.

2. Older children were found to be more skilled than younger children and boys to be more skilled than girls in the target game.

3. Neither mothers nor children took the children's level of success into consideration when setting goals.

4. Mothers set higher goals for the older children than for the younger children.

5. Boys were more willing to try the difficult than were the girls; and older children were more willing to try the difficult than younger children. There was a tendency for the least skilled children to set easier goals for themselves than did the other children.

6. Mothers set higher goals for their children than the children set for themselves, but there was no correlation between the individual mothers' Play Scores and their Children's Play Scores.

7. Mothers and children set relatively high goals for children with low Success Scores and set relatively low goals for children with high Success Scores; nevertheless, the goals for the children with high Success Scores were higher than the goals for the children with low Success Scores.

8. Mothers A/I Scores indicated a belief in being more controlling of girls than of boys.

9. There was no relationship between the attitudes of the mothers implied by the A/I Scores and the mothers' actual behavior during the target games.

10. There was no relationship between the attitudes of the mothers implied by the A/I Scores and the children's behavior during the target games, i.e., their willingness to try the difficult.

CHAPTER V

SUMMARY AND CONCLUSIONS

The purpose of this research was to study the relationship between preschool children's willingness to try difficult tasks and maternal attitudes toward achievement and independence. Maternal attitudes were measured by the use of a questionnaire adapted from the Torgoff Parental Developmental Timetable and the Winterbottom Questionnaire. A target game based on gross motor skill was developed for use in measuring preschool children's willingness to try difficult tasks. This game was designed so that it could be adjusted to the ability of the individual children, thus making it possible to offer each child an opportunity to choose between the easy and the difficult relative to his own ability. The reliability of the instrument was demonstrated statistically.

The subjects for the research were 52 preschool children and their mothers. The age range was from three years and zero months through five years eleven months. The children played the target game alone, making their own choices between the easy and the difficult, and played the game in the presence of their mothers, with the mothers making the choices between the easy and the difficult. Scores for ability, level of success, level of play, and willingness to try the difficult were calculated for both target games. Scores on the questionnaires included A/I Scores representing the relation between the mothers' attitudes toward achievement and independence for most children and A'/I' Scores

representing the relationship between the mothers' attitudes toward their own children and toward most children. All scores were analyzed for differences between sexes, ages, and ability groups, and for relationships to other scores.

In the target game, boys were more skilled and more willing to try the difficult than girls, and older children were more skilled and more willing to try the difficult than younger children. When setting goals in the target game, neither the mothers nor the children took the children's level of success into consideration. Relatively easy goals were set for the less skilled children; nevertheless, the goals for the children with high Success Scores were higher than the goals for the children with low Success Scores. The mothers set higher goals for children than children set for themselves; however, there was no correlation between the mothers' and the children's Play Scores. An analysis of the A/I Scores from the questionnaires indicated that these mothers had more controlling attitudes toward girls than toward boys. No relationship was found between the mothers' responses on the questionnaires and either the goals which the mothers set for their children of the goals which the children set for themselves.

Implications of the Study

The results of this study indicate that there is no relationship between maternal attitudes as measured by the questionnaire and children's willingness to try the difficult as measured by the target game. Children's willingness to try the difficult is a complex characteristic, and factors which influence its development are not easily identified. Two unsuccessful attempts to relate maternal attitudes to this characteristic

were made in the present study. The mothers' scores on the questionnaire and the mothers' goal-setting behavior for the children were both compared to the children's willingness to try the difficult in their target game.

The target game provided a reliable measure of the children's willingness to try the difficult, and did distinguish between children who wanted assured success and those who were willing to accept the challenge of the difficult; therefore, the children's goal-setting behavior in the target game is acceptable as a valid indicator of willingness to try the difficult.

The validity of the questionnaire is doubtful. Many of the mothers objected to the questions, saying that there were so many exceptions that it was impossible to state their beliefs in terms of a definite age. Also, a number of the questions were given a variety of interpretations by the mothers. Several mothers commented that they answered the questionnaire honestly, but that they did not believe their child was actually handled in accordance with those beliefs, due to the fact that the child's father had different ideas.

The mother's target game did not necessarily give an accurate picture of the mother's attitude toward achievement for her own child. Many of the mothers appeared to make their choices in a random manner, without really thinking about what they were doing. Some of the mothers even commented that they were just "taking turns" choosing the easy and the hard, or that they really did not care which one the child tried. Several of the mothers claimed that they wanted the child to be free to set his own goals; and yet their scores in the target game indicated they were expecting the child to try difficult things. One mother who set high

goals for her child remarked, "It isn't that I want her to do things that are hard; it's just that I really think she can do these." Her child, interestingly, showed much greater skill in the mother's target game than she did when playing the game alone. One mother who chose the easy every time for her daughter said, "I want to see the cute pictures; and when she tries the hard, she misses and I don't get to see them."

Recommendations for Further Research

The target game for use in measuring preschool children's willingness to try the difficult should be used in conjunction with other measures of willingness to try the difficult in order to test the validity of the instrument and to determine whether willingness to try the difficult is, in reality, a constant personality characteristic.

Other approaches to the study of parental attitudes toward achievement demands and independence granting should be undertaken, and the attitudes of both mothers and fathers should be considered. Logically, the foundation for the development of willingness to try the difficult lies in the early socialization of children, and further exploration of this relationship is needed.

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APPENDIX A

SCORE SHEET FOR CHILD F-665

NAME Child F-665 SEX F CODE NUMBER 665

BIRTHDATE 9-6-61 AGE 3.6 DATE OF TEST 3-11-65

. . . . . .

WILLINGNESS TO TRY THE DIFFICULT TASK Target Game

Pre-test Score 5 Ability Group II

		Number of Balls	Number of Suc's
1.	A - (B)	2	0
	A - (B)	2	1
2.	C - (D)	2	0
	C - (D)	2	0
3.	(A) - E	1	1
	(A) - E	2	1
4.	(B) - C	1	1
	(B) - C	1	1
5.	(D) - E	2	0
	(D) - E	1	1
6.	(A) - C	1	1
	(A) - C	2	1
7.	(B) - E	2	0
	(B) - E	2	0
8.	(A) - D	1	1
	(A) - D	1	1
9.	(C) - E	1	1
	(C) - E	1	1
10.	(B) - D	2	0
	(B) - D	2	1

RAW SCORE = 46

PLAY SCORE = 2.30

SCORE SHEET FOR MOTHER OF CHILD F-665

NAME Mother of F-665 SEX F CODE NUMBER 665

BIRTHDATE 9-6-61 AGE 3:6 DATE OF TEST 3-11-65

. . . . . .

WILLINGNESS TO TRY THE DIFFICULT TASK Target Game

Pre-test Score 5 Ability Group II

		Number of Balls	Suc's
1.	A - (B)	1	1
	A - (B)	1	1
2.	(C) - D	2	0
	(C) - D	2	0
3.	A - (E)	1	1
	A - (E)	2	0
4.	B - (C)	2	0
	(B) - C	2	0
5.	(D) - E	2	0
	(D) - E	2	0
6.	A - (C)	2	0
	(A) - C	2	1
7.	B - (E)	1	1
	(B) - E	2	1
8.	A - (D)	2	0
	(A) - D	1	1
9.	(C) - E	2	1
	C - (E)	1	1
10.	B - (D)	2	0
	(B) - D	2	1

RAW SCORE = 63

PLAY SCORE = 3.15

APPENDIX B

OKLAHOMA STATE UNIVERSITY
COLLEGE OF HOME ECONOMICS

DEPARTMENT OF FAMILY RELATIONS
AND CHILD DEVELOPMENT

QUESTIONNAIRE FOR MOTHERS

In this questionnaire you are asked what you think is the most important age at which boys and girls may be expected to manage different situations. People have different opinions, and there are no "correct" ages. Your opinions are just as important and just as correct as anyone else's. Tell us what you think without asking anyone else what their ideas are. The best answer you can give is what you really believe.

There are two columns to check. In filling in the first column, try not to think of your own child or some child you know. Your answers should indicate only what you believe is the appropriate age for most children (boys if your son is involved in this research, girls if it is your daughter that is involved).

In the second column you are asked to think of your own child. (If you have several children, think only of the one involved in this research.) Indicate what you feel is the most appropriate age for him (or her). In many cases you may feel that the same age applies for your child as for most other children, but there may be some statements which, for one reason or another, you feel apply to your child at a different age than they apply to most other children.

Here is an example of the statements:

	Appropriate age for Most (boys or girls)	My Child
AT WHAT AGE DO YOU BELIEVE PARENTS SHOULD. . . .		
Begin to train their child to tie his shoes	5	4

BE SURE TO FILL IN EVERY BLANK.

MOTHER'S NAME_____

CHILD'S NAME_____ AGE_____ SEX_____ NUMBER____

DATE_____

AT WHAT AGE DO YOU BELIEVE PARENTS SHOULD:	Appropriate Age For Most	My Child
*1. Begin to train their child to wash his hands and face with no adult assistance		
*2. Begin to teach their child not to fight but to first try to reason with other children		
3. Begin to allow their child to take full responsibility as a baby sitter, caring for a younger brother or sister for an afternoon		
4. Begin to allow their child to decide for himself when he should go to bed		
*5. Begin to correct their child when he messes with his food.		
*6. Begin to teach their child that crying is not the way to get what he wants		
7. Begin to allow their child to play away from home for long periods of time during the day without first telling his parents where he will be		
*8. Begin to teach their child to feel that it is wrong to lie		
9. Begin to allow their child to ride a two-wheel bicycle in streets where there is only light traffic.		
10. Begin to allow their child to spend money the child earns in any way the child wants, even if it seems wasteful to the parents		
*11. Begin to teach their child not to use his fingers when eating		
*12. Begin to teach their child that it is wrong to break a promise		
13. Begin to expect that their child may not show an interest in a "good-night" kiss.		

AT WHAT AGE DO YOU BELIEVE PARENTS SHOULD:	Appropriate Age For Most	Appropriate Age For My Child
14. Begin to allow their child to go out on a "date" with a member of the opposite sex, if a crowd of friends will be along. . . .	_____	_____
*15. Begin to make their child aware of the cost of objects that the child damages.	_____	_____
16. Begin to allow their child to sleep overnight at the home of a neighborhood friend whose parents they know.	_____	_____
*17. Begin to train their child to accept a postponement of what he wants without making a fuss.	_____	_____
18. Begin to allow their child to take a bath with no adult supervision.	_____	_____
*19. Begin to train their child not to get "make-believe" and "pretend" mixed up with real life.	_____	_____
20. Begin to allow their child to remain at home alone for short periods during the day if he wants to	_____	_____
*21. Begin to teach their child not to "blow-up" when the child is "boiling" inside.	_____	_____
22. Begin to allow their child to travel on a city bus alone if he is familiar with the route.	_____	_____
*23. Begin to teach their child that taking something from others without their permission is wrong.	_____	_____
24. Begin to expect their child to have interests and hobbies of his own to entertain himself.	_____	_____
25. Begin to allow their child to cross busy streets where there is no traffic light or traffic officer	_____	_____
*26. Begin to train their child to keep his room tidy.	_____	_____

AT WHAT AGE DO YOU BELIEVE PARENTS SHOULD:	Appropriate Age For Most	Appropriate Age For My Child
*27. Begin to teach their child to share his toys.	_____	_____
28. Begin to allow their child to have friends of his own choosing even if the parents do not approve of the choice.	_____	_____
*29. Begin to discourage their child from crying over minor disappointments.	_____	_____
30. Begin to allow their child to play in the house or yard without the parent checking every once in a while to make sure everything is alright. . . .	_____	_____
*31. Begin to expect their child to do some regular tasks around the house. . . .	_____	_____
*32. Begin to teach their child not to cry every time the child gets hurt. . . .	_____	_____
33. Begin to allow their child freedom of choice in deciding what movie to go to among those showing in neighborhood theaters.	_____	_____
34. Begin to allow their child to use sharp scissors with no adult supervision.	_____	_____
*35. Begin to teach their child not to enter a toilet when it is being used by a child of the opposite sex. . . .	_____	_____
36. Begin to allow their child to light a burner on the stove without adult supervision.	_____	_____
37. Begin to allow their child to go on an overnight camping trip with a group of friends of the same sex with no adult supervision.	_____	_____
*38. Begin to teach their child how to use a sharp knife at the dinner table. . .	_____	_____
39. Begin to let their child settle by himself the fights he has with children of the same age and size.	_____	_____

AT WHAT AGE DO YOU BELIEVE PARENTS SHOULD:	Appropriate Age For Most	Appropriate Age For My Child
*40. Begin to teach their child that it is wrong to cheat.	_____	_____
41. Begin to allow their child to choose for himself what clothing he will wear to school during the day.	_____	_____
*42. Begin to train their child to hang up clothes right after they are taken off.	_____	_____
43. Begin to allow their child to go swimming (in a pool with a lifeguard) with a friend his own age.	_____	_____
*44. Begin to encourage their child to dress himself without help.	_____	_____
*45. Begin to teach their child not to appear naked in front of strangers.	_____	_____
46. Begin to expect their child to try hard things on his own without asking his parents for help.	_____	_____
*47. Begin to teach their child that he will have to work hard if he is to reach his goals in life.	_____	_____
48. Begin to ask their child's permission before reading mail addressed to the child.	_____	_____

*Achievement Items.

APPENDIX C

TABLE VII

DATA FOR INDIVIDUAL GIRLS PARTICIPATING IN A STUDY OF CHILDREN'S WILLINGNESS TO TRY DIFFICULT TASKS: AGES, ABILITY GROUPS, ABILITY SCORES, AND THEIR MOTHERS' A/I AND A'/I' SCORES (N = 26)

Child	Age (Years: Months)	Ability Group	Ability Score	Adjusted Ability Score (in feet)	Mothers' Scores on Questionnaires	
					A/I	A'/I'
F - 659	3:2	III	1.78	2.56	0.853	0.52
F - 660	3:4	III	2.84	4.68	0.926	1.00
F - 681	3:5	II	1.41	2.82	0.674	1.33
F - 682	3:5	II	1.28	2.56	0.687	0.57
F - 666	3:6	III	2.53	4.06	1.439	0.16
F - 665	3:6	II	2.01	4.02	0.921	0.81
F - 598	3:9	II	2.63	5.26	0.944	1.00
F - 664	3:9	II	1.85	3.70	0.691	1.78
F - 675	3:10	III	2.72	4.44	0.628	0.67
F - 595	4:1	II	2.55	5.10	1.104	1.00
F - 667	4:2	I	1.80	4.60	0.697	1.05
F - 679	4:3	I	2.09	5.18	1.387	0.71
F - 656	4:3	II	1.66	3.32	0.725	1.70
F - 552	4:5	II	1.41	2.82	1.143	1.00
F - 218	4:8	II	1.79	3.58	0.818	1.05
F - 694	4:9	II	3.27	6.54	0.908	1.33
F - 776	4:11	II	1.91	3.82	0.877	1.05
F - 678	4:11	III	2.53	4.06	1.663	0.16
F - 477	5:0	I	1.90	4.80	0.702	1.00
F - 560	5:0	II	2.95	5.90	1.457	0.75
F - 64	5:3	III	2.52	4.04	0.924	1.00
F - 123	5:3	III	3.35	5.70	1.295	0.91
F - 696	5:6	II	2.09	4.18	1.095	0.89
F - 135	5:7	II	2.93	5.86	0.787	0.73
F - 447	5:8	I	2.49	5.98	0.601	1.00
F - 676	5:11	II	2.50	5.00	0.708	0.94

TABLE VIII

DATA FOR INDIVIDUAL BOYS PARTICIPATING IN A STUDY OF CHILDREN'S WILLINGNESS TO TRY DIFFICULT TASKS: AGES, ABILITY GROUPS, ABILITY SCORES, AND THEIR MOTHERS' A/I AND A'/I' SCORES (N = 26)

Child	Age (Years: Months)	Ability Group	Ability Score	Adjusted Ability Score (in feet)	Mothers' Scores on Questionnaires	
					A/I	A'/I'
M - 772	3:0	III	2.15	3.30	1.035	1.00
M - 661	3:3	II	2.42	4.84	1.152	0.94
M - 773	3:3	II	1.91	3.82	1.929	1.00
M - 699	3:3	III	1.99	2.98	0.578	0.95
M - 681	3:3	III	2.23	3.46	0.762	0.95
M - 655	3:7	II	2.11	4.22	1.141	0.29
M - 683	3:7	II	2.14	4.28	1.071	0.88
M - 548	3:10	II	2.55	5.10	1.367	0.79
M - 658	3:11	I	2.08	5.16	1.084	0.47
M - 714	4:1	I	2.49	5.98	1.160	1.00
M - 395	4:2	I	2.36	5.72	1.060	0.83
M - 670	4:3	I	2.48	5.96	1.078	0.78
M - 778	4:5	I	2.38	5.76	0.993	1.44
M - 775	4:5	III	2.31	3.62	1.155	1.16
M - 591	4:6	II	1.94	3.88	0.877	1.00
M - 779	4:9	II	3.37	6.74	0.770	1.00
M - 707	4:9	II	1.91	3.82	0.691	1.00
M - 553	4:10	I	2.80	6.60	0.645	1.00
M - 691	5:3	I	3.12	7.24	1.150	1.33
M - 708	5:3	I	3.14	7.28	0.836	1.30
M - 15	5:5	I	2.68	6.36	1.749	0.95
M - 207	5:5	II	2.16	4.32	0.758	1.44
M - 673	5:6	I	2.17	5.35	1.336	0.67
M - 663	5:8	II	3.32	6.64	1.408	0.78
M - 196	5:8	II	3.29	6.58	1.129	1.00
M - 6	5:11	I	3.58	8.16	0.945	0.95

TABLE IX

DATA FOR INDIVIDUAL GIRLS PARTICIPATING IN A STUDY OF CHILDREN'S WILLINGNESS TO TRY DIFFICULT TASKS: PLAY SCORES, SUCCESS SCORES, AND W.D. SCORES OBTAINED IN TWO TARGET GAMES. (N = 26)

Child	Child's Target Game			Mother's Target Game		
	Play Score	Success Score	W.D. Score	Play Score	Success Score	W.D. Score
F - 659	2.00	3.17	-1.17	2.70	2.33	+0.37
F - 660	2.70	2.80	-0.10	3.30	3.88	-0.58
F - 681	2.05	2.43	-0.38	3.15	2.27	+0.88
F - 682	2.10	2.33	-0.23	2.90	1.75	+1.15
F - 666	2.20	4.00	-1.80	2.65	2.50	+0.15
F - 665	2.20	2.75	-0.55	3.15	2.75	+0.40
F - 598	2.35	3.65	-1.30	3.10	3.40	-0.30
F - 664	2.00	2.33	-0.33	2.90	2.60	+0.30
F - 675	2.25	3.33	-1.08	2.35	2.25	+0.10
F - 595	2.60	2.60	0.00	3.65	3.65	0.00
F - 667	2.50	3.26	-0.76	3.60	3.00	+0.60
F - 679	2.25	3.53	-1.28	3.00	2.49	+0.51
F - 656	2.00	1.67	+0.33	3.40	3.02	+0.38
F - 552	2.30	1.77	+0.53	2.05	2.58	-0.53
F - 218	2.20	1.67	+0.53	3.75	3.09	+0.66
F - 694	2.85	4.42	-1.57	3.45	4.18	-0.73
F - 776	2.95	3.18	-0.23	3.45	3.18	+0.27
F - 678	2.00	3.08	-1.08	3.05	3.80	-0.75
F - 477	2.20	2.00	+0.20	3.25	3.03	+0.22
F - 560	3.15	3.85	+0.70	3.05	4.40	-1.35
F - 64	2.60	4.33	-1.73	3.05	3.53	-0.48
F - 123	2.90	4.17	-1.27	3.35	4.85	-1.50
F - 696	2.35	2.95	-0.60	3.00	2.53	+0.47
F - 135	2.60	3.77	-1.17	3.50	4.30	-0.80
F - 447	2.00	2.20	-0.20	3.85	4.24	-0.39
F - 676	3.30	3.66	-0.36	3.55	2.33	+1.22

TABLE X

DATA FOR INDIVIDUAL BOYS PARTICIPATING IN A STUDY OF CHILDREN'S WILLINGNESS TO TRY DIFFICULT TASKS: PLAY SCORES, SUCCESS SCORES, AND W.D. SCORES OBTAINED IN TWO TARGET GAMES. (N = 26)

Child	Child's Target Game			Mother's Target Game		
	Play Score	Success Score	W.D. Score	Play Score	Success Score	W.D. Score
M - 772	2.00	2.46	-0.46	3.50	3.33	+0.17
M - 661	2.35	2.40	-0.05	3.40	3.27	+0.13
M - 773	3.10	3.62	-0.52	2.90	2.23	+0.67
M - 699	2.35	2.25	+0.10	3.45	3.17	+0.28
M - 681	2.25	3.42	-1.17	3.25	2.97	+0.28
M - 655	2.45	2.33	+0.12	3.00	2.87	+0.13
M - 683	2.00	2.71	-0.17	2.75	3.43	-0.68
M - 548	3.00	3.75	-0.75	2.95	3.35	-0.40
M - 658	2.55	3.00	-0.45	3.05	3.00	+0.05
M - 714	2.25	3.75	-1.50	3.20	3.13	+0.07
M - 395	2.60	2.93	-0.33	3.10	3.47	-0.37
M - 670	2.75	3.60	-0.85	3.35	3.25	+0.10
M - 778	2.75	3.07	-0.32	3.50	3.93	-0.43
M - 775	2.00	2.75	-0.75	3.10	3.20	-0.10
M - 591	2.50	3.24	-0.74	3.10	2.17	+0.93
M - 779	3.85	4.11	-0.26	2.85	3.75	-0.90
M - 707	2.90	2.40	+0.50	3.00	2.50	+0.50
M - 553	2.55	3.67	-1.12	3.80	3.54	+0.26
M - 691	3.80	3.58	+0.22	3.65	3.98	-0.33
M - 708	3.45	4.27	-0.82	3.15	4.19	-1.04
M - 15	3.25	3.82	-0.57	3.35	4.32	-0.97
M - 207	2.90	2.53	+0.37	3.25	3.50	-0.25
M - 673	2.40	3.86	-1.46	3.20	2.52	+0.68
M - 663	3.10	4.50	-1.40	3.45	3.75	-0.30
M - 196	3.90	4.17	-0.27	3.90	4.57	-0.67
M - 6	3.15	4.67	-1.52	3.00	4.00	-1.00

VITA

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