The study was designed to discover relationships between certain backgrounds and characteristics of children, and some of the attitudes that are considered vital in a democracy, e.g. those concerning democratic living, group interdependence, empathy, independent thinking and social responsibility. The major variables included: (1) grade or class level; (2) sex; (3) I.Q.; and (4) school achievement level. Subjects were upper elementary school children. Data was collected by a questionnaire. In general, it was hypothesized that girls would have more favorable attitudes than boys, and that the older the child and the higher his/her I.Q. and achievement scores, the more favorable his/her attitudes would be. In great part, the findings bear this out. The least favored concept was independent thinking. Reasons for the findings are adduced and implications for future study discussed. (TL/Author)
A STUDY OF CERTAIN CATEGORIES OF SOCIAL ATTITUDES OF FOURTH, FIFTH, AND SIXTH...

L. H. Zodikoff, 1967

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A STUDY OF CERTAIN CATEGORIES OF SOCIAL ATTITUDES
OF FOURTH, FIFTH, AND SIXTH GRADE PUPILS

by

DAVID ZODKOFF

B. S., State University College at Cortland, New York, 1957
M. A., Teachers College, Columbia University, 1960

DISSERTATION
Submitted in partial fulfillment of the requirements for
the degree of Doctor of Education in the Graduate
Division of the School of Education
at Syracuse University,
June, 1967

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I recommend that the dissertation prepared under my direction by David Zolikoff, entitled "A Study of Certain Categories of Social Attitudes of Fourth, Fifth, and Sixth Grade Pupils," be accepted as fulfilling the dissertation requirement for the degree of Doctor of Education.

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CHAPTER I

INTRODUCTION

The main purpose of this study was to discover any relationships between certain backgrounds and characteristics of children, and some of the attitudes that are perhaps generally considered most vital in a democracy. The attitudes chosen for this study were categorized within the following social conceptual or behavioral areas: democratic living, group interdependence, empathy, independent thinking, and social responsibility.

In the area of democratic living, the attitudes studied involved mainly the child's recognition of, and regard for, the rights of others. In the area of social interdependence or group cooperation, the attitudes studied involved the child's feelings while working within a group, and his expressed preferences for group or individual work. The area of empathy covered the extent to which the child seemed able to relate
emotionally to the problems or successes of his peers. In the area of independent thinking an attempt was made to evaluate the extent to which the child seemed motivated to think independently. The area of social responsibility included the expressed attitudes of the child toward his obligations to abide by the rules or laws of his home, school, and community.

The major focus of this study centered on the following general objectives: 1) to determine student attitudes toward certain behavioral areas stated in the study's purposes, 2) to identify any differences in pupil attitudes between grade levels, 3) to identify any differences in pupil attitudes that may be related to sex differences, 4) to identify any differences in pupil attitudes related to varying levels of I.Q. scores, and 5) to identify any differences in pupil attitudes among varying levels of school subject achievement scores.

In the initial preparation of the questionnaire, graduate students in education were asked to place the
questionnaire's attitude items under the relevant concept headings. Before the main study, the questionnaire was given to a sample fourth grade class in order to discover major inconsistencies in responses.

The main study utilized a questionnaire consisting of favorably and unfavorably stated attitude items under each of the five main concept areas. The major variables included in the questionnaire study were the following variables: 1) the pupil's grade or class level, 2) the pupil's sex, 3) the pupil's intelligence quotient, and 4) the pupil's school achievement level. The questionnaire was distributed to fourth, fifth, and sixth grade pupils. Major hypotheses were tested to determine the cause and/or relationship between the pupil's stated total attitude score and each of the previously stated variables. The eight major hypotheses of this study were stated as follows:

H1: Sixth grade children will have significantly higher mean attitude scores of favorable attitudes than fourth or fifth grade children.
H1: There will be a significantly higher mean attitude score of favorable attitudes of girls' scores as compared with boys' scores at each grade level.

H5: Older boys and girls will have significantly higher mean favorable attitude scores than younger boys and girls within their respective sexes.

Hg: Children with above-average IQ, at each grade level, will have significantly higher mean favorable attitude scores than children with below-average IQ.

Hg: Older children with above-average IQ will have significantly higher mean favorable attitude scores than younger children with above-average IQ.

Hg: Older children with below-average IQ will have significantly higher mean favorable attitude scores than younger children with below-average IQ.

Hg: Older pupils with above-average achievement will have a higher mean favorable attitude score than younger pupils with above-average achievement.
Hₙ: Pupils with above-average achievement at each grade level will have a higher mean favorable attitude score than pupils with below-average achievement.

In Chapter III of this study, more information will be provided in relation to the above areas, as well as discussion involving the definitions of important terms used in the study, and the statistical methods of analysis utilized to evaluate the results of the questionnaire study.

Subjects used in the study were comprised of children from three fourth grades, three fifth grades and three sixth grades from elementary schools in the Syracuse Public School System. A major limitation of this study was the restricted use of generalizations to larger populations based on the sample of this study. Another major limitation of this study was that the responses of pupils on the attitude questionnaire could only be assumed to represent their actual beliefs or feelings.
CHAPTER II

BACKGROUND LITERATURE OF ATTITUDES AND CONCEPTS

Attitudes

There has been extensive literature reported in books and journals which contain relevant background material in the general areas of attitudes and concepts, as they pertain to children of nine to twelve years of age. The collected research in the area of attitudes divides into the following sections: 1) definitions of "attitudes," 2) the development of attitudes, 3) the study of prejudiced attitudes, 4) the causes of attitude change, 5) an attitude study of culturally deprived children, and 6) the school's role in helping to develop favorable social attitudes in children.

Definitions of "Attitudes"

Several sources were found that offered generally similar definitions for the term "attitude." Kerlinger defined an attitude as a "predisposition to think, feel, perceive, and behave toward a cognitive, or understood, outside object." He further stated that an attitude has
an objective reference, but may be of a subjectively oriented nature. An attitude was defined by Harper as a concept with an evaluative dimension. Therefore, he claimed that any theory explaining concept formation can explain attitude development. Harper did not state, however, that before such a theory connecting attitudes with concepts can be asserted, the attitude toward the concept must be outwardly expressed by the person or persons under study.

Edwards defined an attitude as "the degree of positive or negative feeling expressed about some psychological object." By psychological object, Edwards referred to any "idea, person, or ideal, by which people can disagree within a range of positive or negative feeling." Edwards' definition of attitude was selected for the way the meaning of attitude will be used in the questionnaire study. Remmers stated that attitudes make up the individual's self-evaluation of conduct and desires, in relation to a system of self-understood social values. He defined an attitude as

"a felt idea or group of ideas which set persons to act in relation to specific objects that arouse such feelings." An attitude was defined by Kulp as "a behavior tendency in relation to a value, expressed either verbally or in outer non-verbal behavior."

In general, then, these sources stated that an attitude is some form of expressed feeling or belief toward an object, idea, or person. A questionnaire of attitude statements toward earlier mentioned social concepts or behavioral areas is the main attitude evaluative instrument in this study.

The Development of Attitudes

The formation of attitudes in children, according to various sources, follows an unbroken developmental pattern. According to Remmers, attitudes begin at an early age in the form of original drives in children. Later in life, these original drives couple with social experiences which are organized into attitude systems. As the child grows, he acquires "human nature" which helps to equip him to live better in human society.


Also, during the growth process, the child gains new learnings and experiences which help lead to new attitudes and goals. This development begins with primary social group relations in the home, and later attitudes are formed from secondary group relations from peer groups and school life. The strength or weakness of a child's felt attitudes will depend on how close a personal relationship the child has established with others.

If a child in school feels that his teacher dislikes him or discriminates against him, it would seem that the child would develop negative or anti-social attitudes toward that teacher. Part of the questionnaire's purposes in this writer's study is to determine, by the child's written responses, if having a certain I.Q., and school achievement level is related to his attitudes toward those behavioral or concept areas desired by the school. In addition to these variables, relationships will be sought in regard to any differences in attitudes between older and younger school children.

6 Remmers, loc. cit.
The Study of Prejudiced Attitudes

A study by Zeligs and Hendrickson, entitled "Factors Regarded by Children as the Basis of Their Racial Attitudes," conducted with several hundred elementary school children, disclosed that these children are much more liberal at early school ages in their social classroom relationships. Other conclusions of their study indicated that

1. Attitudes of young children displayed high subjectivity based on a small amount of factual experience.

2. Children's attitudes toward other races depended on the degree of personal experience these children had with members of other races.

3. No generalized ideals were found to signify that the child could relate as well with members of other races as with members of his own race.

Radke-Yarrow, Trager and Davis's study of the social perceptions and attitudes of children revealed that the cultural context and attitudes of children, relative to other racial and religious groups, are

learned early in childhood. The study also stated that

group membership is one aspect of the self-concept of
children and that group membership is related to the
child's needs for acceptance. Allport claimed that
attitudes are related to 1) security, 2) prestige,
3) emotional trauma, and 4) acceptance of facts. In
all four cases, these factors are only significant to
the child if they are within his understood experiential
background. Allport classified the following channels
through which attitudes are built:

1. Attitudes grow out of a process of inte-
grating numerous and varied experiences.

2. Attitudes are formed by individualizing
specific action patterns from earlier exploratory
mass action behavior.

3. Attitudes are acquired as a result of trauma-
ic or shock incidents.

4. Attitudes are molded by imitation of parent
and other adult attitudes.

Therefore, he concluded that emotional control of a
child is more easily accomplished by building healthy
attitudes at an early age.

8Marion Radke-Yarrow, Helen G. Treger, and
Modassah Davis, "Social Perceptions and Attitudes of
Children," Psychological Studies of Human Development,
(eds.) Raymond G. Kuhlen and George C. Thompson, (New York:

9Gordon Allport, "Control by Attitudes," Child
Growth and Development, (ed.) C:cil V. Millard, (Boston:
General agreement seems to be held among the previously cited sources that attitudes are related to the child's environment, age, and level of understood social experiences. Therefore, the sample population for this writer's study will try to include as wide a range of intellectual and experiential levels as possible, in order to try to determine what different attitudes are exhibited by children of each level.

Radke-Yarrow, Trager, and Davis's study of children's attitudes found that minority group children displayed more negative self-feelings and personality conflicts than children from majority group backgrounds. The minority group child also displayed very aggressive attitudes to identify more with the majority group. The authors also stated that the effect of group membership on a child's self-concept is relative to the role of the particular social group. It was hypothesized that the school's attitude of indifference toward problems related to cultural group differences has resulted in children continually learning and absorbing
adult stereotyped attitudes toward other groups.\textsuperscript{10}

In his article, Chasnoff stated that ethnic attitudes are an integrated part of attitudes in general and are interrelated to the whole personality and its environment. He further stated that most children readily accept adult attitudes toward ethnic groups. Evidence was cited that more prejudiced attitudes are found in lower socio-economic and lower educated groups.\textsuperscript{11} A study by Adorno and others claimed that the personality structure of the ethnocentric child is similar to that of the ethnocentric adult, but the main difference is that the ethnocentric child is more amenable for change. This study was done with over two thousand college and non-college subjects. The measuring instrument was a questionnaire divided into factual questions, opinion-attitude scales, and projective personality oriented questions.\textsuperscript{12}

The study also stated that liberal anti-authoritarian type children were 1) more forgiving, 2) more self-aware of inner motives, 3) less touchy in personal

\textsuperscript{10}Maxine Yarrow, Trager, and Davis in Kuhlen and Thompson, op. cit., p 421-22.


matters, 4) more sensitive to others' opinions, and
5) less outwardly self-assertive than other authoritarian
type children. Chasnoff cited Radke and Sutherland's
report that found that older children showed a progressive
increase of negative attitudes toward minority groups.
Children in grades five and six were about fifty percent
discriminatory, while higher age groups were proportionally
more discriminatory. Chasnoff also stated that
children are aware of racial differences as early as the
age of three years. This awareness starts with a generally
unfavorable attitude toward a certain ethnic group. As
the child gets older, he applies more adult stereotypes
toward the particular group.

The foregoing sources seem to agree that children
acquire stereotyped attitudes from adults at an early
age and that many children acquire even more of these
prejudiced attitudes as they get older. One of the major
purposes of this study is to find out if children in
higher school grades have more favorable social attitudes

13 "Variables that Influence the Formulation of Attitudes," Chasnoff, OP. Cit., pp. 604-606.
14 "Variables that Influence the Formulation of Attitudes," Chasnoff, OP. Cit., pp. 604-606.
15 "Variables that Influence the Formulation of Attitudes," Chasnoff, OP. Cit., pp. 604-606.
than children in lower grades. If so, one possible reason may be that the school's influence has helped to alleviate previously learned prejudiced attitudes. Attitudes of tested children to items related to empathy, social responsibility, and others in the questionnaire of this study, should help to find how relatively successful the school has been in helping children to develop more socially desired attitudes.

The Causes of Attitude Change

Several source studies offered different views regarding the causes of attitude change. Manske studied the effects of a Hawthorne-type of study on 127 pupils in an experimental and control group setting, and 16 teachers. The results of his study of the influences on pupil behavior of liberal-oriented and non-liberal oriented teachers were as follows:

1. Children with higher IQ tended to have more liberal attitudes.
2. Female students were more conservative than male students.
3. Younger pupils were more liberal than older pupils.

4. Types of pupil readings definitely influenced attitudes.

5. A favorable acquaintance with racial groups tended to increase tolerance.  

The study also found that doctrinaire teachers pressured pupils to conform to their views, and when actual social problems were studied in class, the involvement, itself, tended to develop more liberal attitudes.

A study of the effects of parents’ emotional relations on attitude formations in their children was conducted by Rogers. One hundred and twenty-five children comprised the sample. The results showed that the effect of inter-parent emotional relations on a child’s behavioral attitudes were more significant than the effects of religious, intelligence, or socio-economic factors of the parents. The children of parents that had a generally balanced emotional interplay were more confident in their daily school life. In clinical studies that attempted to alter parent-child attitudes,


17 Ibid.
little positive success was gained until parents were convinced to display more warmth and affection to their children. It was also found that hostile attitudes of the parent toward his child are often transferred from the affected child to others in his peer group. 18

Cohen's study involved the use of threats to change attitudes in terms of an individual's level of self-esteem. The results showed that threatening appeals are usually rejected by persons having a higher level of self-esteem. Also, approaches which would improve an individual's self-esteem were more readily accepted by those with a high level of self-esteem. 19 It would then seem that the child with low self-esteem would resist school-oriented change.

In this area of attitude change and development, Foshay and others claimed that learned attitudes are the consequence of numerous environmental experiences. Major factors to consider in order to improve favorably attitudes included 1) adding newer experiences, 2) offering more pleasant experiences to counteract previous unpleasant experiences, 3) suggesting favorable ready-made

attitudes, 4) providing vicarious experiences, and 5) arranging newer, more dramatic experiences. As the child adopts both favorable and unfavorable attitudes from his home, peer, and school cultures, great ambiguities can arise in his attitudinal thinking. Another mentioned source of culture conflict is in the area of reward and punishment learning. For example, parents may put more stress on the virtues of hard physical work, rather than on an intellectualized verbal learning process advocated by the school.²⁰

Cole mentioned six traits that should be studied in order to determine emotional maturity in pre-adolescents. These traits included 1) how often the child can make independent decisions without adult assistance, 2) whether the child can relate the parts of a social act to the whole act, 3) whether the child can view himself with a minimum of prejudice, 4) whether the child is willing to compromise rather than indulge in futility, 5) whether the child can make up his mind after relevant evidence has been evaluated, and 6) whether the child does not overrate his own personal

importance. Cole states that the observer's awareness of these traits in evaluating children's outer behavior could act as an effective measuring device for comparing different children on a continuum scale of maturing behavior. 21

Sherif and Sherif stated that the problem of attitude change is to decide on the degree of discrepancy from communication, and the felt necessity of coping with the discrepancy in terms of an individual's degree of mental-emotional involvement. If there is a strong emotional involvement, then attitude change becomes more difficult. When the communication is worded in a pattern similar to the individual's cognitive level, he would be more likely at least to consider the communication. 22

Sherif and Sherif's attitude study stated three generalized conclusions.

1. The more extreme a person's stand on an issue, the more extreme will be his stated reaction.


2. A person's relative emotional position to an attitude statement on their attitude scale, if moderately, emotional, approaches a majority neutral point.

3. An extremely emotional person's attitude has a higher latitude range than the moderately emotional person, while the moderate person has a larger non-committal score.

The major finding of the study was that the relation between the extremity of standards and patterns of evaluation is not just the extremeness, but the high probability that an individual extreme in his position is highly emotionally involved in that position. 23

In "The Development of Children's Attitudes" section of his edited work, Chanoff stated that attitudes display a person's interrelationship with his environment. He further claimed that to improve or change attitudes, there must be an awareness of the influence of certain variables upon a person. Several of these variables included 1) the child's socio-economic background, 2) the level and quality of the child's educational background, 3) the child's environmental background,

23 Ibid., 233-35.
and 4) types of adult behaviors affecting the child's personality.24

Several ideas were suggested by Chasnoff for changing negative ethnic attitudes in children:
1) Start attitude training with younger children since they usually have greater mental flexibility, 2) Use a multi-dimensional approach to attitude change rather than just one approach, 3) Use group work on problems of common interest, rather than stress specific inter-group relations, 4) Change the group norms toward ethnic groups so that it becomes unpopular to have prejudiced attitudes, 5) The classroom emotional climate can affect prejudiced and non-prejudiced feelings, 6) The teacher should be the key person in improving inter-group education.25

Radke-Yarrow, Trager, and Davis's previously cited study stated that the school could help the child change prejudiced attitudes by helping him to learn correct facts about cultural differences, and, therefore, learn to adjust better to a more culturally diverse

Joyce stated that many attitudes develop between the ages of six and sixteen as a result of conforming to the social group to which the child belongs. He advocated several positive approaches to the development of healthy social attitudes.

1. A careful study might be made of social attitudes learned in early social experiences.

2. An awareness should be developed that attitude can grow without any contact with the objects of attitudes.

3. The best approach to change attitudes is to combine the teaching of attitudes with object experiences and attitude evaluation.

The foregoing sources have described approaches that could be utilized by the school to improve children's social attitude development. If this writer's questionnaire study discloses that older children who have school-experience have more favorable attitudes, then a possible cause for this result may be that the school has played a part in improving social attitude development in children.

An Attitude Study of Culturally Deprived Children

Although this section is not directly related to the major hypotheses of this study, it is included to offer reasons why many children from lower socio-economic backgrounds may have less favorable attitudes than children of higher socio-economic backgrounds. Various sources described characteristics and problems found to be typical in culturally-deprived and lower economic class children. Arnez cited three basic problem areas.

1. Parents fail to provide success symbol motivation.
2. There is often an alien feeling toward a "middle class" atmosphere in the schools.
3. There may be weak early language training.

Therefore, it is harder for the culturally deprived child to compete early in school with more economically advantaged children. According to the author, the above factors result in the deprived child adopting negative feelings toward himself, society, and the
school. Most blame for this condition was levelled at the school's failure to uplift these children because of persistent negative and hostile attitudes of many middle-class oriented teachers toward deprived children in their classroom.\(^{29}\)

In order to determine the attitudes of Negro children toward school, Pittman administered the Illinois Inventory of Pupil Opinion to 278 Negro children of all six grades in four elementary schools. He cited difficulty in placing high validity on the verbal responses of tested sixth grade pupils. He claimed that their low socio-economic and cultural backgrounds helped to influence them to agree with what they thought the school wanted them to agree. He found no significant difference between a child's sex and expressed attitudes, and little significance between a child's intelligence, achievement, and stated attitudes, to warrant any valid behavioral generalizations.\(^{30}\)

Dunich's study dealt with the developing of responsibility patterns of perceptions of 508 sixth

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\(^{29}\)Nancy L. Arnez, "The Effect of Teacher Attitudes upon the Culturally Different," *School and Society*, XXV, No. 2275, (March, 1966), 149-52.

grade children's attitudes toward acceptance of responsibility. The main measuring instrument was a questionnaire measuring a child's perceptions of self-responsibility in different areas. The study included an equal number of lower and middle class children. The main finding of the study was that middle class children had more positive attitudes toward assuming self-responsibility at an earlier age than lower class children. The reason given for this result was that middle class parents expect earlier adoption of home duties by their children than do lower economic class parents.21

The results of Zunich's study seemed to substantiate the findings of parts of studies by Davis and Havighurst. Their study disclosed that middle-class children are taught ways of living that will prepare them to become financially independent, to assume positions of responsibility in the home and community, and to become responsible citizens of the culture in which they live. The lower class children are reared in families in which life is less strictly organized, and fewer demands are made upon them.


Davis and Havighurst's studies claimed that children in middle-class families were expected to assume responsibilities earlier than were lower class children.\textsuperscript{33}

Vredevoe's study involved the effects that transferring Negro pupils to predominately white schools had on the attitudes of the Negro pupils. As a result of an "open enrollment" policy, these pupils were sent to school considerable distances from their own neighborhoods. The attitudes of these children to their new school environment were found to be generally negative. Many of the children claimed to feel odd in their new school environment and felt equally strange when they returned to their own neighborhoods. Frequent statements of a jealous nature were expressed by many Negro students toward wealthier white children because they had better clothes and school supplies.\textsuperscript{34}

The same author listed the following as some suggestions to help school personnel alleviate the negative attitudes displayed by the newer pupils.

1. Study the form of teacher attitudes toward minority groups.

\textsuperscript{33}Ibid.

\textsuperscript{34}Lawrence E. Vredevoe, "The Effects of Desegregation on School Discipline," \textit{The Education Digest}, XXX (April, 1965), 12-15.
2. Housing codes should be more strictly enforced.

3. Ethnic groups, themselves, must learn to discipline within their own groups.

4. A forced transfer of pupils is less effective than a studied plan of the proper age and grade of pupils considered for transfer. According to Riesman, the culturally deprived child's attitude toward education is positive, even though he displays negative attitudes toward the school and teacher. This is because the school represents an alien, or unknown, culture to the deprived child. Such a child manifests attitudes of anti-intellectualism, narrow pragmatism, respect for rigid structure, and strong disciplinary authoritarianism. The author reports the deprived child's attitudes toward democracy as conflicting. In one instance, the child favors the underdog and his relations to others are of an egalitarian, informal nature. In other instances, however, he favors strong authoritarian leaders and displays prejudiced and disrespectful views toward the viewpoints of others.

Passow summarized the following personality traits of the culturally disadvantaged child:

35ibid.

1. The pre-school years do not give the disadvantaged child experiences to prepare him for readiness in academic learning, either by intellectual gains or healthy attitudes toward learning.

2. The child's limited slum society sanctions behavior regarded as immoral in society at large.

3. Early trouble, by such a child, in mastering basic intellectual skills of the school and broader society, quickly develops a negative self-image, and resultant negative attitudes toward the school and society.

4. The child gains status in the street gang culture and, therefore, develops antipathy toward school-stressed concepts of cooperation, empathy, or proper grasp of democratic ideals.

A study was made by Amidon and Hoffman of children from four sections at each grade level from kindergarten to sixth grade. There were two control groups and two experimental groups at each level. The teachers of only the experimental groups were given aid in learning socio-metric techniques to see if this would help change their attitudes toward socially deprived children. The

study's results showed that deprived children, working with a teacher who was motivated toward helping them, did more successful school work than other deprived children who experienced no positive motivational experiences from their teacher. Therefore, the authors believed the school can play an active part in attitude change of deprived children, if teachers are made to realize the need for them to empathize more strongly with the needs of the children who are culturally deprived. 38

The School's Role in Attitude Development

In discussing his study of the school's role in helping to develop favorable social attitudes in children, Briggs stated that, in any learning situation, attitudes and intelligence must be considered of equal importance. Therefore, in curriculum planning, the stressing of positive attitudes is as important as the mastery of factual content. It was stated that more positive social attitudes would also develop quicker in a classroom atmosphere permeated with democratic principles. 39

38 Edmund Amidon and Carl B. Hoffman, "Can Teacher Help the Socially Rejected?" The Elementary School Journal, LXVI, No. 3 (December, 1965), 149-54.

Joyce claimed that a middle-class child can be culturally deprived if he has been prevented from having wide social experiences. He believed the school can help such children by providing an environment that offers the child a chance to socialize, ask questions, and practice interdependent relations with others.  

Millard cited a condensed form of Lewin, Lippitt and White's Iowa study of ten and eleven year old children in classrooms of an autocratic, laissez-faire, and democratic nature. The study's findings showed that children, in a democratic type of classroom, displayed better general learning, lower aggression, and friendlier attitudes, than children in the other less democratic-oriented classrooms.  

Joyce stated that the socially maturing child finds security in his peers, makes adjustments to accepted social customs and conventions, and finds work that interests him. The author advised that teachers should seek these traits in students and strive, daily, to encourage them in the pupil's regular school activities.


Joyce, loc. cit.
Joyce further claimed that most research showed that the schools' educators have done little to improve the teaching of lower class children. He advised educators, while planning techniques for developing desirable attitudes, to avoid brainwashing, cajoling, and harsh social pressures, but rather rely on more gently persuasive guidance and appeals to the mind. He urges the necessity for educators to realize they deal with children from home backgrounds which are tolerant or intolerant toward other groups. Each teacher is obliged, therefore, to study any attitudes of a child, whenever they are appropriate to develop desired critical thinking.43

This writer's study, in part, will try to determine if a significant difference in favorable attitudes exists between older grade school children when compared with their younger grade peers. If it is found that older children have more favorable attitudes, then a possible partial reason may be the influence of school environment over a longer period of time. Also, if a democratic type of school life exists, then this writer's study may find that younger children with lower school achievement.

43Ibid.
and intelligence levels may seem to display favorable attitudes toward those democratic ideals favored by the school, as a result of more positive social school experiences.

Concepts

The collected research in the area of concept study will be discussed in the following sequence: 1) definitions of "concept," 2) types of concepts, 3) pre-conceptual development in children, 4) the school's role in concept development, 5) typical self-concepts of nine to eleven year olds, and 6) causes of tolerant and prejudiced concepts in children.

Definitions of "Concept"

Various sources were studied to determine a suitable definition for the term "concept" as it will be used in this study. Allport defined a concept as any intellectualized category, on any given level understood by the learner. He further stated that any concept has both a denotative and connotative sense, and the connotative sense can be of either a positive
or a negative nature. A concept was defined by Xerlinger as a word that expresses an abstraction by generalizing from particular experiences. He also stated that any concept has some common cultural meaning, although it can take on different meanings by different groups.

Michaelis cited Brownell and Hendricksen's definition of a concept as an abstract tangible quality, but that as developmental learning of a concept progresses, it takes on more variable and specific meanings. Michaelis, the editor of Social Studies in the Elementary Schools, described concepts as functional meanings and understandings acquired by children from both life experiences and school subject matter. A concept was defined by Taba as "complex systems of highly abstract ideas which can be built only by successive experiences in a variety of contexts."

45 Xerlinger, op. cit., pp. 31-32.
Each source seems to agree that a concept is an intellectualized abstraction that takes on newer and more specific meanings with the learner's increasingly understood experiences in the concept area. Therefore, it would seem that the concept of democratic living takes on newer and more precise meanings with school children's increase in age and experience.

**Types of Concepts**

The five concept areas selected for this study were derived from the several sources that advocated the school's use of concepts considered the most vital in a democracy. Hunnicut listed seven basic conceptual schemes.

1. People's manner of living is a product of environmental interaction.
2. In search of progress, people have built a constantly changing panorama of culture and civilization.
3. People work, invent, and build to satisfy their changing needs and desires.
4. People strive for order and justice through law and government.

5. Through sharing experiences, people learn to live together.

6. People need enrichment for their daily existence.

7. People increasingly recognize their interdependence with all mankind, and must share responsibility for the general welfare. 49

The Social Studies Curriculum Center of Syracuse University stressed five value concept areas: 1) The Dignity of Man or the need for students to respect the individual rights of others, 2) Empathy, which can't be just taught, but taught and practiced as a concept value, so that students that accept this value will practice it, 3) Loyalty, or the learning of which loyalties are right and which are wrong, and how to test, effectively, certain positive loyalties to one's people and country, 4) Government by the Consent of the Governed, which would overlap with the previous mentioned concepts, and 5) Freedom and Equality, which also overlaps with the above concepts, and includes knowledge and

practice of freedom with responsibility and respect for other's equality.  

Five key concept areas were advocated by the Bureau of Curriculum Development of the New York State Education Department. These concept areas included the following: 1) Interdependence, whereby people become social through group life and shared experiences, 2) Adaptation-Conservation, in which people's lives are conditioned by their natural environment, 3) Cooperation, whereby people work together to satisfy their needs and desires, 4) Democracy, where people try, through mutually accepted laws and organization, to gain justice and security, and 5) Progress, whereby people have struggled through time to achieve a better life.  

In a section pertaining to key concepts in elementary school social studies, Michaelis has also stressed the use of such concept areas as interdependence, independent thinking, and other social skills necessary to train children to live in a democracy.  

From the afore mentioned sources, the concept areas of group cooperation, democratic living,
independent thinking, empathy, and social responsibility have been selected for use in this study. The term "concept," will be used in this study with the belief that children can react, in their stated attitudes toward conceptual areas, in a connotative rather than denotative sense. Therefore, it would seem possible for children to have emotionally expressed attitudes toward given concepts without being able to verbally identify these concepts by a specific name. By use of a questionnaire, consisting of favorable and unfavorable attitude statements related to the selected concept areas, the writer of this study will try to determine how close a relationship exists between those attitudes expressed by nine-to-twelve-year-old children and those attitudes desired by the school to prepare children for democratic living.

Preconceptual Development in Children

Various sources offered insights in the area of pre-conceptual development in children. In Section 5 of their book, Bloom, Davis and Hess mentioned that the public elementary schools often discriminate against
most culturally deprived children by failing to aid such children in forming more socially favorable attitudes and healthier self-concepts. They listed four major deterrents, still practiced by the schools, that prevent improving the school's role to prepare more adequately such children for social life.

1. The school's stress on long-range abstract goals are alien to such children.

2. The school often lacks communication with parents of deprived children, which prevents possible enrichment of home environment.

3. Many teachers discriminate against such students, and use their teaching more to classify discriminately such students rather than try to seek proper diagnosis of these students' problems.

4. These three factors, and others, leave the deprived child with a low level of self-esteem, and affects, negatively, his future adoption of school-desired social concepts.

Estvan listed three major developmental levels of children's social perceptions: 1) simple enumeration of concrete observations, 2) consideration of separate

54 Ibid.
parts of an observed situation, and 3) an awareness of meaningful wholes. In his early school life, the child's perceptual levels evolve from a concentration on "who" is involved in acts to a more structured "who and what" is involved in socially perceived acts. A later perceptual development centers on a more functional, or the "how or why," of perceived situations.

Four factors that greatly influence children's social perceptions, according to Estvan, are: 1) physical factors, 2) language factors, where the use of learned verbal symbols aids in expanding wider conceptual identity of persons and things in more precise terms, 3) intelligence, even though the lighter child can bring more concepts into play, there is no assurance that he has either strong or weak feelings toward newer experiences, and 4) experience background, which includes a study of the total relationship of the child's socio-economic, religious, and cultural background. Estvan considered that the primary areas of stress of social values in elementary school social studies should include

the following: 1) respect and confidence in one's own rights and the rights of others, 2) concern for the welfare of others, and 3) a recognition and appreciation for the cultural similarities and differences of others. He believed the main role of the school is to foster these values in children.\textsuperscript{56}

In a condensed article cited by Michaelis Havighurst wrote, in relation to the social development of children in grades four, five, and six, that their intellectual curiosity is more toward impersonal relations, such as things and processes, than in the area of human relations. He felt, therefore, that these children are more concerned with immediate experiences rather than with experiences of a broader and more intellectual nature.\textsuperscript{57} Havighurst also claimed that concepts taught in elementary social studies programs are not to be taught as just so many facts to be learned. Rather, they should be stressed as functional understandings to be acquired by children from both experiences and subject matter. To help ensure the proper retention of desired

\textsuperscript{56}Ibid., pp. 28-32.

\textsuperscript{57}Robert J. Havighurst, "Child Development in Relation to Community Social Structure," \textit{Ibid.}, pp. 35-38.
attitudes and concepts in the elementary school, these concepts must be presented at each grade level, within the child's level of understanding.58

According to Piaget, the ages of seven to eleven years are known as the period of "concrete operations." He calls this stage in development the beginnings of operational or logical thought. This type of thought begins when a certain base of learned concepts has been organized into a logical system of relationships. The concepts used in operational thought are called "operations" because these concepts are internalized responses. He further stated that these concepts grow out of certain outer actions as images grow out of imitation. Three types of such operational concepts are 1) classes, or placing similar objects in one group, 2) relations, or ordering things by size, and 3) numbers, which includes both ordering and classifying things by some numerical quantity. With more maturity, the interrelationships of these three areas becomes more apparent.59

Harper stated that a deficiency in verbal learnings of concepts varies with age but verbal learnings of

58 Ibid., pp. 36-38.
concepts is generally difficult on a larger scale with younger children. He stated that children's mistakes come about because either such learning starts at too early an age, or because incorrect or inadequate learning of earlier concepts makes learning of newer related concepts more difficult. Therefore, Harper urged that each teacher must know what general agreement is held about concepts by later grade teachers. He suggested that a well-learned concept shows no weakness in being logically connected to other concepts, but that with a weaker learned concept, there is a deficiency in learning a concept at any age.60

In his discussion of the clarification of children's self-concepts, Joyce maintained that, traditionally, evidence of thinking abilities of elementary school children was that they were very limited in the ability to think abstractly and conceptually, and, therefore, tended to use verbal information inaccurately. Directly related to this theory, the belief was also held that elementary school curriculum should present only the environment; learning stress should be placed on concrete.

rather than abstract, thinking experiences. Joyce maintains that this belief has been overinterpreted and has led to the mistaken belief that the child couldn't learn anything outside of his immediate home environment. 

Joyce cited a study by Lacey which stated that, in addition to confused and inaccurate concepts learned by children, the primary grade curriculum was so thin in conceptual content that the child had no way to clarify his ideas. Joyce also summarized a study by McAulay with primary grade children that led to a similar conclusion. He found that the Home-and-Neighborhood centered study of the primary grades puts emphasis on concepts already learned by the child, at home, prior to entering the school. Therefore, the school curriculum did not extend the child's understandings.

Arnoff's study had the purpose of determining the ability of young primary grade children to grasp certain abstract political concepts. Second, third, and fourth grade children were used in the study. The IQ range was from 68 to 154, and the socio-economic growth


Joy M. Lacey, Social Studies Concepts of Children in the First Three Grades, Ibid.

class range was from lower-middle to upper-middle class. In his conclusions Arnoff stated that second, third, and fourth grade children can deal with political concepts at the local, state, and national levels, on a more complex and abstract social studies level than earlier educators had thought possible.  

Arnoff thought the most important lesson to be learned from the study was that conceptual perspectives of elementary school children can increase rapidly in a rich instructional environment which presents the social relations and institutions of man in basic terms that can be easily learned by seven-to-nine year old children in an activity curriculum.  

If this is true for children in grades two to four, then it would seem that children in grades five and six could successfully handle more abstract social concepts than they perhaps do at the present time.

Most children in early school years, according to Stone and Church, can form clear semi-concrete operations with concepts but within a concrete frame of reference. Although middle grade children develop mental structures
similar to adults, they differ 1) in terms of the lack of the child's knowledge, 2) in regard to the extent which his concepts have been worked into a unified, integrated system, 3) in the depth of his self-knowing, and 4) in the emotional value he places on certain types of his experiences. 66

Three major intellectual conceptual stages of development in children were suggested by Taba:
1) sensory motor stage, 2) the preconceptual or concrete operational stage, including the building of mental images by manipulation of concrete objects, and 3) the conceptual thought or formal operations stage, which is not found, usually, until adolescence. In this conceptual stage, the child can think with abstract propositions without the use of material objects before him. 67

Therefore, the preceding pre-conceptual stages would require some material objects for use before the child could conceptualize.

According to Wilson, the concept of any one thing is never a separate entity of its own, but is always related to a general class of things. In forming

concepts, children at an early age form very general concepts and include things in concept categories that are more variable than similar. As the child matures, his concepts become more narrow in meaning, or he more carefully classifies different objects by more precise cognitive standards.68

Wilson also stated that, although concepts and meanings are closely connected, a person may be able to understand a concept without being able to identify verbally the concept. The author also claimed that one may view a concept of a person, place, or thing in a logically descriptive objective sense, or confuse a conceptual definition by being over-influenced by psychological or over-affective feelings toward a certain concept.69 Therefore, abstract concepts such as democracy, empathy, and others can be widely interpreted.

The School's Role in Concept Development

Various sources offered different insights into the school's role in aiding children's concept development. In his writings related to conceptual development in children, Piaget stated that the child, before the ages

69 Ibid., pp. 56-59.
of thirteen to fifteen, exhibits little emotional feeling toward moral ideals. The reason he states for this condition is his belief that the pre-adolescent child has more experience in concrete factual situations, rather than those of a more abstract intellectual nature. He further stated that the child's ideals, at the ages of thirteen to fifteen years, become more created from within himself rather than only being gathered in loosely from outside personal contacts.  

Piaget claimed that the main reason for this change in thinking in older children is that the older child becomes less egocentric than the younger child and develops more self-control of his ego which aids in his personality growth. This writer wonders if the skill of internal intellectual abstractional thinking could not start before the child is thirteen to fifteen years of age, if the school provided more experiences to the younger child at his level of verbal understanding to encourage more abstract conceptual thinking.

In his chapter related to concept development in elementary school grades, Michaelis suggested twenty-five

70 Piaget, op. cit.
71 Ibid.
basic social concepts that he felt should be stressed in all elementary school social studies programs. Heaviest stress was put on such concepts as democratic living, empathy, and social group interdependence. As he believed that attitude growth is slow in terms of understanding and emotional functioning, the teaching of concept truths by the school must be repeated in a variety of ways and through many related learnings. Therefore, teachers must plan various experiences and facts for the repetition and interpretation of ideas and concepts. 72

Major causes of children gaining faulty conceptual learnings in school were stated by Michaelis.

1. Many concepts are presented beyond the child's maturity level.
2. Too many social concepts presented at the same time result in confusion to the child.
3. There may be an over-emphasis on verbal procedures and a lack of concrete first-hand experiences.
4. Teachers may fail to emphasize ideas from the child's immediate environmental experiences.

72 Michaelis, op. cit., pp. 92-95.
5. There may be a lack of the teacher's understanding that children have different cultural backgrounds leading to frequent misinterpretations.

6. There may be neglect of using all phases of the school program in concept growth. Therefore, concept learning would improve if the school becomes more aware of the child's maturity level, ethnic background, and use of wider relevant source materials.\textsuperscript{73}

The results of a study by Podell and Carter claimed that for verbal concept acquisition by children, a large variety of related instances are usually more effective than a smaller variety of instances, for both primary and intermediate grade age groups. However, when concepts are easier, or when students are of lower ability, a smaller variety of related experiences is better for conceptual learning. The study found that in the fourth and fifth grades it was more beneficial to learning when a small variety of relevant experiences was used, and the learning set was incidental, rather than intentional or pre-planned in nature.\textsuperscript{74}

A positive suggestion for improving conceptual learning by children was offered by Joyce. He stated\textsuperscript{75}

that much recent evidence indicates the necessity of treating fewer topics in school, but of greater depth. This way enables the learner to obtain enough first-hand experience upon which to build more difficult ideas and to have enough time to clarify his concepts through this limited topic depth-study approach.  

This agrees with an earlier criticism by Michaelis that the schools often present too many conceptual topics at once, which usually results in misconceptual learning in children.

Joyce's study included similar proposals as were offered by Jersild. In his suggested teaching process, called the "seasoning of ideas," Jersild argues that if the child is to acquire more experience and understanding necessary to build clear ideas, he should be engaged in depth studies of a few topics, rather than in a superficial study of a great many things.

According to these several sources, a positive approach that can help the school improve the child's ability to learn concepts is to present fewer conceptual ideas, in more depth, at each new learning stage.

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In the unit teaching of concepts, according to Nelson, the content should be more inter-disciplinary and a basic conceptual approach should be utilized. This process would include confronting the learner with experiences and ideas that provide insights, the testing of insights, and developing these insights into generalizations. These generalizations are conceptualized as they become part of the student's cognitive structure.\(^7\)

As the conceptual process depends on insight and the development of generalizations, the proper way to build a concept unit is to include supporting generalizations related to concepts and insights that are related to these generalizations. For example, a teaching unit may start with defined concepts, supported by relevant generalizations from other areas, as well as insightful activities related to these generalizations.\(^8\)

The writer included the study by Nelson to offer perhaps a definite and positive way to teach and develop concept learning in the elementary school.


\(^8\)Ibid.
Taba believed the school can help develop concept formations in children by providing systematic experiences that aid in developing cognitive organization, and, therefore, the ability to see relationships, to reason, to solve problems, and to generalize.  

Bruner, in an excerpt from his study *The Process of Education* as cited by Taba, suggested that concepts can be learned at an earlier age and quicker, if the child is taught the basic structure of each academic discipline, and then widens his conceptual thought from grade to grade within a structured base. To be successful, this structured approach must be presented at the child's level of language comprehension.

Conceptual knowledge, in the words of Taba, is the product of many experiences over a long period of time and in many different contexts. For concepts with no concrete references, such as democracy or justice, operational differences of their meanings in different contexts takes the place of the kind of precision unattainable by verbal description.

For the school to develop desirable attitudes toward social concepts, it must provide the following factors:

1) an environment which encourages an assimilation of

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80 *Ibid.*, p. 120.
desired attitudes, 2) experiences which evoke certain types of feelings, and 3) problem solving skills and character identification practice so that pupils can emotionally experience verbal learnings.\(^\text{82}\)

Horn's study of social studies concepts in the schools showed that too many concepts were being taught at the same time, thereby reducing the possibility of more major concepts being learned in a sound manner. In the same yearbook, Brownell stated that essential educational concepts must be carried forward in development and be in the possession of all learners, while less important concepts need no such careful development. In addition, he claimed that learners can never retain concepts, adequately without relevant experiential background.\(^\text{83}\)

Six major techniques of teaching concepts were advocated by Horn.

1. Limit the number of concepts.
2. Vary the pace of learning of concepts.
3. Vary the levels of conceptual learning.
4. Include sufficient guidance while teaching concepts.

\(^\text{82}\)Ibid.
5. Consider the learner's background.

6. Have several related activities that aid in giving more learning depth to those concepts under study.\textsuperscript{84}

Using democracy as a generalized relation between several relevant concepts, Brownell and Hendrickson claimed that the reason for our failure truly to understand such generalizations is that we do not relate or connect the various concepts which give a clearer and wider understanding of the broader concept. Therefore, we tend to learn each concept in a piecemeal fashion.\textsuperscript{85}

Brownell and Hendrickson also stated that concepts and generalizations are learned best through varied experiences rather than just repeated verbal practice. They also claimed that, although language teaching in school is vital and necessary, if it is carried to the extent of excessive verbalism in learning, it can lead to the pupil only memorizing unrelated facts and, therefore, not gaining a clear conceptual development.\textsuperscript{86}

A social studies textbook committee, under the direction of George Manalakes, generally agree that textbooks should contribute to concept formation in

\textsuperscript{84}Ibid., pp. 113-16.


\textsuperscript{86}Ibid., pp. 123-24.
several ways.

1. Illustrations can be made to enrich concept learning.

2. Activities should be relevant to the concepts.

3. Questions of a problem solving nature related to the concepts can be offered.

4. The frequencies of ideas should be more relevant to factual matter.

5. Typographical techniques to emphasize the scope and sequence of relevant material should be used. 87

The committee decided that the teacher was more crucial than the textbook in the development of concepts. A question arose, however, as to how much help a textbook would be either to hinder or help a teacher in concept development. Therefore, the group studied various textbooks to learn how they developed the following conceptual scheme: "The goal is recognition of the dignity and worth of the individual." 88

Four categories used in the textbook study were 1) verbalizations, 2) experiences, 3) activities, and 4) reinforcements. 89

The following major findings of the study were made:

88 Ibid.
89 Ibid.
1. Concepts, related to the dignity and worth of the individual, were mostly introduced and developed through descriptive and verbal statements rather than a stress on materials to develop concepts.

2. More stress was put on geography and history facts at the expense of stress on broad concept development.

3. Concepts had little and weak reinforcement after initial presentation.

4. Concepts, related to individual worth and dignity, were contradicted by the authors' stress on stereotypes in textual and illustrated materials.

5. Concepts that could have been relevant to the dignity and worth of the individual could be distorted by textual omissions.\(^\text{\textsuperscript{90}}\)

The study's conclusions stated that:

1. Educators must rely more on textbooks that stress concept development in line with a child's maturational level.

2. Teachers should avoid the class use of textbooks that fragment the curriculum into overly strict, rigid, and separate subject areas.

3. There is a greater need to clarify the terminology in the social studies program.\(^\text{\textsuperscript{91}}\)

\(^{90}\)Ibid.

\(^{91}\)Ibid.
In Michaelis's study, suggestions were made by Jersild that teachers, in terms of developing social concepts with children, should meet children on their own ground and develop illustrative concepts in regard to experiences with which the children are familiar. Stress was also placed on the need for school programs to provide problem solving experiences for children to help develop their conceptual thinking. By the use of such problem solving techniques, the child could find more conceptual relationships and form wider concepts. It was advocated, also, that these same concepts should be repeated at higher grade levels so as to help the pupil extend, enrich, and deepen the concept's meaning.92

In his chapter dealing with factors in the concept development of children, Michaelis included the child's interests, mental maturity, attention span, experience background, language skill use, and critical thinking ability. One suggested effective approach in concept building was to consider the specific experiences in some work unit and to determine those concepts considered to be the most significant. This significance could be

determined by the frequencies and use of concepts in
the unit, any crucial personal needs that arise in
class, and children's revealed misconceptions. 93

Michaelis suggested relevant areas of study
that should be utilized with pupils to develop the con-
cepts of interdependence, group living, and democratic
living. Those areas related to interdependence included:
1) how family members and pupils should share ideas and
help each other, 2) how other cultures help each other,
3) how modern technology has helped make men more inter-
dependent, and 4) the interdependence of man on natural
resources. 94 Areas of study related to group living
concepts included worktime, playtime, home, school, and
community relations. The concept of democracy included
such study areas as related to man's individual worth
and respect for the rights and ideas of others. 95

A study by Raffner involved an evaluation of
the vocabulary load and social-concepts included in
forty-two fifth and sixth grade level social studies
textbooks. The Lorge-Thorndike word list was used as
an aid in evaluating the vocabulary loads in each

94 Ibid.
95 Ibid.
The conclusions of his study showed that the vocabulary in the sixth grade texts were of a less difficult quality than the vocabulary found in the fifth grade textbooks. Also, it was found that both the fifth and sixth grade texts contained excessive vocabulary loads and concept burdens, and the social-concept burden was greater in the sixth grade rather than the fifth grade texts. The author believed that concept learning would improve if only necessary and limited vocabulary and concepts were found in textbooks.  

A study by Awkard utilized a study of 350 concepts sought in thirty fifth and sixth grade social studies textbooks. One of his conclusions was that a small number of concepts was found in any of the texts, the texts had a very narrow range of topics, and the small amount of text space afforded conceptual ideas suggested that present fifth and sixth grade texts do not project ideas from the behavioral sciences to any great extent. His other major conclusion mentioned that the bulk of textual material was written in a
narrative style, where humans' interactions with their own and others' experiences are not in a similarly narrow form. Therefore, the author thought it ineffective to project adequately the more universal concepts of the behavioral sciences in the narrative form.  

The results of a study by Wittrock of the effects of giving verbal concept cues to children during new concept learning by problem solving was that the group given verbal cues had higher success scores in problem-solving situations. To be effective, however, the verbal cue for concepts must be related to previous learned associations and the type of test used to measure the cue's success. One suggestion the author offered teachers was to give children a series of training problems and accompany each by a verbal cue for labeling the desired concept. The author felt this method more effective than giving children no related verbal cues for successful concept learning.  

Several concepts were offered by Joyce in relation to the teaching of concepts to children. The following include some of these conceptual suggestions:

98Ibid.
1. The child's intellectual development depends on his experience, but the school should offer more experiences to the learner.

2. When facts are presented to the child, rather than just generalizations, he can conceptualize better.

3. Depth studies give a child more time to internalize and develop abstract thought.

4. The child's conceptual development of society is dependent on how open-minded the child's thinking has progressed.\textsuperscript{100}

To help develop a more open-minded child, according to Joyce, the child should be rewarded for searching out ideas and testing his facts and opinions in a classroom tone of interdependence. He cited studies by Lewin, Lippitt, and White that added evidence to the belief that children learn more successfully in an open or democratic-oriented classroom atmosphere.\textsuperscript{101}

Major problems in learning concepts in the social studies by children were suggested by Nowell.

1. The vocabulary level of reading is higher than the learner's level.

2. Too many concepts are presented at one time.

\textsuperscript{100} Joyce, OP. cit., PP. 108-109.

\textsuperscript{101} Kurt Lewin, Ronald Lippitt, and Ralph K. White, "Patterns of Aggressive Behavior in Experimentally Created Social Climates," Ibid.
3. There is too much emphasis on just verbal usage of concepts.102

Several suggested non-text oriented techniques for concept study included: 1) tape recorders, 2) maps, charts, and tables, 3) panel discussions, and 4) role playing.103

The author offered evidence that claimed that many social studies teachers and curriculum makers pay only lip service to critical thinking skills that would better enable a child to understand others. At the other extreme, there is so much stress on seeing both sides that no opinions are formed by the learner.104

In a study of the possible interrelationships between concepts, values, and attitudes, Di Vesta found that if an object has no effect on a person's strongly felt values, a neutral attitude will be held toward that object by the person. Negative or positive attitudes will be held toward an object if that object is conceived by the person as being either destructive or constructive toward his strong value beliefs. The author believed that since value patterns are hard to change, more change in attitudes will result by making changes

103 Ibid.
104 Ibid.
Educational practices are futile, according to the same author, that do not take into account practices that can change negative concepts or that account for the learner's value patterns. In line with this thought, a greater need was stressed for better psychometric devices to test an individual's grasp of important concepts and to learn more about his attitudes.

Typical Self-Concepts of Nine to Eleven Year Old Children

Various typical self-concepts of nine to twelve year old children were offered by Stone and Church. They claimed that unlike the predominant amoral outlooks of the pre-school child, the child in the middle grades is more moralistic but on a non-factual basis. Therefore, such children are very aware of moral inconsistencies, particularly when such inconsistencies are aimed at themselves. These children also judge each other more harshly than do adults, and, therefore, this new independence of the child puts the world into rigid parts, and


\[106\] Ibid.
a condition of seldom questioning motives, but judging more on external behavior.  

As the child gets older, with proper training, he becomes less two-value oriented and more sophisticated in his moral attitudes toward relevant concepts. The authors stressed the great need for school age children to blend words learned in school into their conceptual development and attitude formation. It was also stated that, although the child has interest in wide varieties of attitudes and opinions, his attitudes are formed on a more concrete basis.  

Culturally deprived children have considerable difficulty, as reported by Bloom, Davis, and Hess in developing concepts and generalizations of an abstract nature. This results because such children have weak experiences in such cognitive areas as language development, broad cultural experiences, and a restricted stimulation experience in intellectual areas. This situation in such children becomes more apparent in their poor academic performances in higher elementary and junior high school grades.

107 Stone and Church, op. cit., pp. 243-45.
108 Ibid.
Causes of Tolerant and Prejudiced Concepts in Children

A substantial amount of information was found in Allport's study of causes of prejudiced attitudes in children. In the tolerant child's early life, his home life is usually found to have a permissive atmosphere where punishment is mild and reasonable, while the more prejudiced child's home life is frequently filled with harsh punishments of an often unjust nature. Therefore, the tolerant child can develop more emotional security earlier, and this results in a stronger ego sense with no sharp breaks between his mental and emotional life.  

Although Allport generally agrees that a child's conformity with his home atmosphere is the main single source of prejudice, he also believes that the child does not always grow up to be a mirror image of his parents, nor do the parents' attitudes always conform to prevailing community prejudices. He offered three main reasons to help explain his skeptical attitude of the school's role to improve inter-group relations.

1. The school has a fear of opposing parents' teachings at home.

Allport, op. cit., pp. 399-401.
2. Many teachers themselves may have strong prejudices.

3. Neither the school nor the church can easily erase earlier influences of the family.

However, he believes the school and church can offer newer values that can alter older prejudiced attitudes which the child adopted from his parents. 111

In further describing the attitudes of the tolerant child, Allport claimed that the tolerant child accepts people as they are, is not two-valued in his orientation, has a high tolerance for ambiguity, and does not often project blame or guilt on others. Therefore, Allport believed that tolerance is seldom, if ever, a product of just one cause, but rather the result of several forces pressing in the same direction. These forces would include temperament, family atmosphere, and the diversified social influences of the school, church, and community. As the school is considered a key social agency, it can help either to advance or retard a child's adoption of more positive social attitudes toward democratic concepts. 112

111 Ibid., pp. 279-81.
112 Ibid.
CHAPTER III

PROCEDURES OF THE STUDY

The main measuring instrument of this study was a questionnaire consisting of fifty attitude statements. The writer made up the attitude statements to correspond to each of the following five major behavioral or concept areas: 1) democratic living, 2) group interdependence, 3) empathy, 4) independent thinking, and 5) social responsibility. Under each of the five areas, ten attitude statements were included, five written in a positive manner and five in a negative manner.

A panel of sixteen graduate students in Education was asked to place the attitude items under their relevant concept areas. On the basis of the greatest frequencies of their responses, the attitude items were placed under the chosen concept areas. Whenever any statements received no majority vote, they were either revised or replaced by other statements. The
final form of selected concepts and their related attitude statements can be found in Appendix I of this study.

After the attitude items were placed under their selected relevant concept areas, another questionnaire was written presenting these fifty statements in an arbitrarily mixed order so as to avoid any mechanically patterned responses. A sample fourth grade class was given the questionnaire to help determine any inconsistencies of responses. Whenever these inconsistencies were found, they were either revised or replaced by other more relevant items.

The final questionnaire form, found in Appendix II of this study, was administered to seventy fourth grade pupils, eighty-seven fifth grade pupils, and eighty-eight sixth grade pupils in two public elementary schools of the Syracuse public school system. The general socio-economic background of the pupils in the study ranged from lower-middle socio-economic class to upper-middle socio-economic class for both schools, as disclosed by the schools' principals.
The major variables utilized in this study included each pupil's sex, school achievement score, intelligence quotient, and grade level. After background data were collected for each child, it was found that a wide spread of intelligence quotients and achievement scores was found at each grade level. This seemed to indicate an adequate random sampling at each grade level. In grades four, five, and six, the IQ range was from 78 to 129, 70 to 129, and 80 to 131, respectively. The school achievement score range was from 2.0 to 6.8 in the fourth grade, from 2.7 to 10.4 in the fifth grade, and from 3.5 to 10.5 in the sixth grade.

Eight major hypotheses were tested and evaluated in this study. The one idea underlying all eight of these hypotheses was the assumption that children in the higher-age grades would have more favorable attitudes than children in lower age grades. This assumption was predicated on the belief that the longer a child was in school, the more he would adopt favorable social attitudes stressed by the school teachers and curriculum. However, this is not to imply a direct one-to-one relationship,
but rather to offer one possible reason why older school children might have more favorable attitudes than younger school children.

The major hypotheses of this study are:

$H_1$: Sixth grade children will have significantly higher mean attitude scores of favorable attitudes than fourth or fifth grade children.

$H_2$: There will be a significantly higher mean attitude score of favorable attitudes by girls' scores as compared with boys' scores at each grade level.

$H_3$: Older boys and girls will have significantly higher mean favorable attitude scores than younger boys and girls within their respective sexes.

$H_4$: Children with above-average IQ at each grade level will have significantly higher mean favorable attitude scores than children with below-average IQ.

$H_5$: Older children with above-average IQ will have significantly higher mean favorable attitude scores than younger children with above-average IQ.

$H_6$: Older children with below-average IQ will have significantly higher mean favorable attitude scores than younger children with below-average IQ.
H₇: Older pupils with above-average achievement will have a higher mean favorable attitude score than younger pupils with above-average achievement.

H₈: Pupils with above-average achievement at each grade level will have a higher mean favorable attitude score than pupils with below-average achievement.

Attitude scores in the case of each hypothesis was represented by the total mean attitude score of each class or sub-group under consideration. Significance was set at the .05 level.

Definition of Terms

1. Concept in the general sense is defined as an abstract intellectualized idea that is developed with further related experiences and understandings. Hilda Taba is the source of this definition.¹

2. Attitude is defined in accord with Allen L. Edwards as the degree of positive or negative feeling expressed about some psychological object.²

3. Intelligence quotient as used in this study is the most recent intelligence test score received by each pupil on the Lorge-Thorndike Intelligence Test.

4. Achievement test scores are defined as those scores received by each studied individual on their most

¹Taba, op. cit., p. 78.
²Edwards, op. cit., p. 2.
recently received Stanford Achievement Test score. Separate IQ test scores and achievement test scores were recorded for each individual subject in the study. That is, for each of the two tests, the total score for each test was recorded for this study.

5. Democracy is defined as those attitudes in regard to favorably or unfavorably expressed feelings toward respect for other people's equal rights.

6. Empathy is defined as the expressed attitudes indicating how well one person can relate or sympathize with another person's feelings.

7. Group cooperation is defined as the expressed attitudes involving how well one feels about working with others.

8. Independent thinking is defined as those attitudes expressive of one's desires to think on a more independent or individualistic level.

9. Social responsibility is defined as those attitudes related to the child's respect for his individual obligations to obey the rules of the home, school, and community.

**Questionnaire Items**

The responses to the attitude statements on the questionnaires were placed by the students on I.B.M. scoring sheets. During the administration of the
questionnaire teachers assisted the writer in answering pupil questions about items on the questionnaire. The reading level of the vocabulary of the questionnaire was checked against the Sheldon and Spache word reading lists. All but seven of the words were found to be on fourth grade reading level. The seven words not found were either revised or specifically explained prior to, and during, the administration of the questionnaire.

A five point grading scale of items was utilized in evaluating the responses. As shown in the sample questionnaire in Appendix II, the scales range from strongly disagree, mildly disagree, do not really care, mildly agree, to strongly agree. Positively stated attitude statements were scored as follows: 1) strongly disagree, 2) mildly disagree, 3) do not really care, 4) mildly agree, and 5) strongly agree. Negatively stated items were scored in reverse form; that is from 5) for strongly disagree to 1) for strongly agree. This format was adopted to avoid mechanically patterned responses and to check for extreme inconsistencies in responses.
The writer was requested to eliminate item 49 of the questionnaire before permission was granted to conduct the study. Therefore, the highest possible total individual favorable attitude score would be 248, or 49 statements times 5 plus the constant score of 3 in item 49 for all tested subjects. However, this constant would not affect the lowest possible attitude score of 50, nor 150 as the middle or neutral total score. The constant of 3 was assigned to all subjects in item 49 rather than the elimination of the statement in order to retain ten attitude statements for each concept area.

When results were presented pertaining to each grade's total attitude frequency responses in each concept area, the mentioned constant score in item 49 was considered in the final evaluation of each grade's total responses in each concept area. The analysis of variance was used to find significant differences between group mean scores by use of the t test between each class and each sub-group. The Pearson Product Moment Correlation was used to find significant relationships between attitude scores and achievement and intelligence quotient.
scores. The .05 level was set as the criterion level of significance in the study.

The reliability of the questionnaire's statements was checked for internal consistency by the split-half technique, or correlating a pupil's responses of statements in one concept area to his responses to statements in other concept areas. Favorable or positively oriented statements were matched with other positive statements, and negative statements had the same procedure. The Spearman Rank Correlation Coefficient was utilized to test for item reliability at the .05 level as the minimum level of significance.
CHAPTER IV

STATISTICAL ANALYSIS OF QUESTIONNAIRE STUDY

The data for this study were analyzed by the T.S.A.R., or Tape Storage and Retrieval Computer System, at Syracuse University. Analysis of variance was in conjunction with the program outlined by Lindquist,1 while the analysis used in testing reliability of test items was derived mainly from information in Kerlinger.2

The presentation of data results in this chapter follow this sequence: 1) analysis of data for hypothesis one, 2) analysis of data for hypothesis two, 3) analysis of data for hypothesis three, 4) data analysis for hypothesis four, and tables 5 through 8 will include data results for hypotheses five through eight.

Following discussion of the statistical results pertaining to the main hypotheses of this study, a section of the chapter will describe the procedures used to check the reliability of the questionnaire used in the study. The following section will discuss the total mean responses

by each grade to each of the five main concept areas.

The Large-Thorndike Intelligence Test was the source for the intelligence quotients for all grades in the study. The following mean intelligence quotients were found to be: grade four 102, grade 5 103, and grade 6 106. These mean scores were used in each grade to separate above average IQ from below average IQ scores for purposes of this study. The Stanford-Achievement Test score results were used for all pupils in the study. The mean achievement scores for each grade were as follows: grade four was 3.8, grade five was 4.8, and grade six was 6.0. As in the case of the IQ scores, the mean achievement score in each grade was used to separate pupils with above-average achievement from pupils with below-average achievement at each grade level. At each grade level there was a three-to-five year range in achievement and a spread of 40 to 60 IQ points at each grade level.

Hypothesis one of this study stated that sixth grade children have higher mean attitude scores of favorable attitudes than fourth or fifth grade children. Table
1 shows the results of the data in reference to this first hypothesis. Grade six, when compared to grade five, had a higher total favorable attitude score at the .01 level of significance, and the same level of significance was found for the total favorable attitude score between grade six and grade four. A possible reason offered for this result is that children that have spent more time in school have acquired more of the favorable attitudes desired and emphasized by the school program.

The data of Table 1 also disclosed that grade six had a higher significance score, compared to fourth grade scores, than the relationship shown between sixth grade and fifth grade. A possible reason for this may be the wider difference in age and school experience between sixth and fourth grade, as compared to fifth and sixth grades. The results, as shown in Table 1, seem to support the hypotheses that sixth grade children have more favorable attitudes, as a total group, than fourth or fifth grade children. One possible reason for this result could be that sixth grade children have had more school experiences
<table>
<thead>
<tr>
<th>Grade</th>
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<th>Standard Error</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
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<td>198</td>
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<td>4.5847*</td>
<td>3.9788**</td>
</tr>
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<td>87</td>
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<td>3.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>70</td>
<td>189</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
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<td>1.5 (av.)</td>
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<th>p</th>
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</thead>
<tbody>
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<td>6</td>
<td>88</td>
<td>198</td>
<td>1.1</td>
<td>6.6337**</td>
<td>2.5756**</td>
</tr>
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<td>87</td>
<td>189</td>
<td>3.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
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<td>193</td>
<td>2.0</td>
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<th>Standard Error</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
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<td>198</td>
<td>2.0</td>
<td>9.2449**</td>
<td>3.0405**</td>
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<td>70</td>
<td>189</td>
<td>2.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
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<td>194</td>
<td>1.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
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<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
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<td>87</td>
<td>188.6</td>
<td>3.3</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>188.8</td>
<td>2.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>157</td>
<td>188.7</td>
<td>2.0</td>
<td></td>
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</tr>
</tbody>
</table>

Formulas of Analysis of Variance:

\[
F = \frac{t^2 \cdot \text{between groups variance } V_b}{\text{within groups variance } V_w}
\]

**p < .01
*p < .05
that oriented them to be more in agreement with those attitudes desired by the school.

The second hypothesis of this study stated that there would be a significantly higher mean attitude score of favorable attitudes of girls' scores compared with boys' scores at each grade level. Table 2, on page 81 presents the statistical results pertaining to this hypothesis. The table is subdivided into three sections. The first section describes total favorable attitude scores of grade six boys compared with grade six girls. The second section compares attitude scores of fifth grade boys with fifth grade girls, and the third section compares attitude scores of fourth grade boys with fourth grade girls.

The data in Table 2 show that there is no significant difference in attitude scores between either sixth grade boys and sixth grade girls or fifth grade boys and fifth grade girls. Therefore, the hypothesis that there is a significant attitude difference between boys and girls at each level is rejected in reference to the fifth and sixth
<table>
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<td>3.0141</td>
<td>.7361</td>
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<td>201</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>198</td>
<td>2.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 male</td>
<td>43</td>
<td>183</td>
<td>3.4</td>
<td>3.5623</td>
<td>.0874</td>
</tr>
<tr>
<td>5 female</td>
<td>44</td>
<td>195</td>
<td>4.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>87</td>
<td>189</td>
<td>3.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 male</td>
<td>36</td>
<td>181</td>
<td>3.5</td>
<td>12.0243</td>
<td>3.4676</td>
</tr>
<tr>
<td>4 female</td>
<td>34</td>
<td>197</td>
<td>2.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>189</td>
<td>2.6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***p < .001  
**p < .01
grade boys and girls in this study. However, as the table
discloses, there is a significantly higher fourth-grade-
girls' attitude score than the total fourth-grade-boys' 
attitude score. In the case of grade four, then, the 
hypothesis must be retained. A possible reason for this 
high grade-four girls' attitude score may be that younger 
girls conform more to the views they hear from parents at 
home and the teacher at school. It may also be that girls 
are more verbally developed at this age level than boys.

The third hypothesis of this study stated that 
older boys and girls will have significantly higher mean 
favorable attitude scores than younger boys and girls 
within their respective sexes. Table 3 is divided into 
four sections. The first section shows total attitude 
scores of all boys in grades four, five, and six. The 
second section includes boys in grades five and six. 
Section three includes boys in grades five and four, and 
section four includes boys in grades six and four. Table 
4 is the same except with girl pupils.
### Table 3

Comparison of Attitude Scores Between Fourth, Fifth, and Sixth Grade Boys

<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>M</th>
<th>Standard Error</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
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<tr>
<td>6</td>
<td>48</td>
<td>195</td>
<td>2.9</td>
<td>5.6233</td>
<td><strong>5.1236</strong></td>
</tr>
<tr>
<td>5</td>
<td>43</td>
<td>183</td>
<td>3.4</td>
<td>3.1195</td>
<td><strong>2.7314</strong></td>
</tr>
<tr>
<td>4</td>
<td>36</td>
<td>181</td>
<td>3.5</td>
<td>0.7971</td>
<td>.3158</td>
</tr>
<tr>
<td>Total</td>
<td>127</td>
<td>187</td>
<td>2.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>48</td>
<td>195</td>
<td>2.9</td>
<td>7.4501</td>
<td><strong>2.7295</strong></td>
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<tr>
<td>5</td>
<td>43</td>
<td>183</td>
<td>3.4</td>
<td>3.1195</td>
<td><strong>2.7314</strong></td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>189</td>
<td>2.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>43</td>
<td>183</td>
<td>3.4</td>
<td>0.9971</td>
<td>.3158</td>
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<td>36</td>
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<td>3.7</td>
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</tr>
<tr>
<td>Total</td>
<td>79</td>
<td>182</td>
<td>2.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>48</td>
<td>195</td>
<td>2.9</td>
<td>9.7314</td>
<td><strong>3.1195</strong></td>
</tr>
<tr>
<td>4</td>
<td>36</td>
<td>181</td>
<td>3.5</td>
<td>0.7971</td>
<td>.3158</td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td>189</td>
<td>2.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p < .01
The first section of Table 3 shows that sixth grade boys had significantly higher mean attitude scores than fourth and fifth grade boys. This result supports the third hypothesis which states that older, or higher class, boys will have more favorable attitude scores than younger, or lower class, boys. In the second section of Table 3, which compares attitude scores of boys in grades five and six, sixth grade boys again scored higher mean favorable attitude scores. This section would also support the third hypothesis. No significantly higher score was made by fifth grade boys when compared with fourth grade boys in the third section of the table. Therefore, in this area, the hypothesis was rejected.

The fourth section of Table 3 shows the highest significant attitude score of sixth grade boys when compared with fourth grade boys, and this section retains the third hypothesis. Perhaps one reason for the largest significance in this area is that sixth grade boys have considerably more experience in school life than fourth grade boys and more experience, to a lesser degree, than fifth grade boys.
Fifth grade boys, when compared with fourth grade boys, didn't show a significant difference in such experience.

A study of Table 4 discloses that in all four sections of the table there was no significantly higher mean favorable attitude score of older girls in sixth or fifth grades when compared with girls in lower grades. Therefore, although hypothesis three was retained for boys in all but one case, this hypothesis must be rejected in relation to the data for fourth, fifth, and sixth grade girls. It is interesting to note, however, that in each grade level the girls had a higher mean favorable attitude score than the boys. However, there is more variability range in the girls’ scores. This may imply that girls at these age levels are more independent in their thinking than boys or are more willing to express their felt attitudes than boys. As stated before, another reason may be that girls are more verbally developed at these age levels than boys.

Hypothesis four of this study states that children with above-average IQ at each grade level will have
### Table 4
Comparision of Attitude Scores Between Fourth, Fifth, and Sixth Grade Girls

<table>
<thead>
<tr>
<th>Grade</th>
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<th>X</th>
<th>Standard Error</th>
<th>F</th>
<th>p</th>
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<td>40</td>
<td>202</td>
<td>2.5</td>
<td>0.9839</td>
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</tr>
<tr>
<td>5</td>
<td>44</td>
<td>195</td>
<td>4.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>34</td>
<td>197</td>
<td>3.51</td>
<td>1.2640</td>
<td>0.2600</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
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<td>196</td>
<td>3.1</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>40</td>
<td>202</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>34</td>
<td>197</td>
<td>3.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>74</td>
<td>200</td>
<td>1.8</td>
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</table>
significantly higher mean favorable attitude scores than
children with below-average IQ. Table 5, on the following
page, is divided into three main sections. The first
section will show results of the attitude scores of sixth
grade children with above-and-below-average IQ. The
second section gives results of fifth grade children with
above-and-below-average IQ, and the third section of the
table gives the attitude scores of fourth grade children
with above-and-below-average IQ.

The first and second sections of Table 5 show
that there was no significant difference in the attitude
scores of sixth grade pupils with above-and-below-average
IQ or fifth grade pupils with above-and-below-average IQ.
Therefore, the fourth hypothesis, which states that
children with above-average IQ at each grade level will
have higher attitude scores than children with below-
average IQ, must be rejected for sixth and fifth grade
pupils. Section three of Table 5 shows that fourth grade
children with above-average IQ have significantly higher
attitude scores than fourth grade children with below-average
TABLE 5

COMPARISON OF ATTITUDE SCORES OF FOURTH, FIFTH, AND SIXTH GRADE PUPILS WITH ABOVE-AND-BELOW-AVERAGE INTELLIGENCE QUOTIENT WITHIN THEIR GRADE LEVELS

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<td>195</td>
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<td></td>
</tr>
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<td>Total</td>
<td>88</td>
<td>198</td>
<td>2.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 above average</td>
<td>39</td>
<td>193</td>
<td>5.0</td>
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<td>5 below average</td>
<td>48</td>
<td>185</td>
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</tr>
<tr>
<td>Total</td>
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<td>189</td>
<td>3.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 above average</td>
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<td>5.2015</td>
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<tr>
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<td>42</td>
<td>184</td>
<td>3.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
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<td>189</td>
<td>2.6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Pearson $r$ Formulas
IQ and this section would support the hypothesis. Perhaps one reason for the difference in fourth grade is that younger children are apt to cling to the attitudes learned from parents and teachers more than older pupils tend to do.

The fifth hypothesis states that older children with above-average IQ will have significantly higher mean favorable attitude scores than younger children with above-average IQ. Table 5 consists of four sections. The first section includes data on children with above-average IQ at each grade level. Section two includes sixth and fifth grade pupils with above-average IQ while sections three and four includes fifth grade, and fourth grade and sixth grade and fourth grade with above average IQ respectively.

Section one of Table 6 discloses significant scores to support the fifth hypothesis. Also, sections two, three, and four of the Table do not show significantly greater means between older children with above-average IQ and younger children with above-average IQ. Therefore, the hypothesis must be rejected in these four areas. An interesting reversal in this area is the fact that there was a higher favorable attitude score for fourth grade
<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>X</th>
<th>Standard Error</th>
<th>F</th>
<th>( \Delta )</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>46</td>
<td>191</td>
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<td>1.2449</td>
<td>1.0734</td>
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<tr>
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<td>39</td>
<td>193</td>
<td>5.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>28</td>
<td>196</td>
<td>4.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
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<td>197</td>
<td>2.0</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
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<tr>
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<th>N</th>
<th>X</th>
<th>Standard Error</th>
<th>F</th>
<th>( \Delta )</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>46</td>
<td>201</td>
<td>2.4</td>
<td>2.1951</td>
<td>1.4816</td>
</tr>
<tr>
<td>5</td>
<td>39</td>
<td>193</td>
<td>5.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>85</td>
<td>197</td>
<td>2.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
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<th>Grade</th>
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<th>X</th>
<th>Standard Error</th>
<th>F</th>
<th>( \Delta )</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>39</td>
<td>193</td>
<td>5.0</td>
<td>0.1304</td>
<td>0.3610</td>
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<td>28</td>
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<tr>
<td>Total</td>
<td>67</td>
<td>194</td>
<td>3.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>X</th>
<th>Standard Error</th>
<th>F</th>
<th>( \Delta )</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>46</td>
<td>201</td>
<td>2.4</td>
<td>1.4870</td>
<td>1.2194</td>
</tr>
<tr>
<td>4</td>
<td>28</td>
<td>196</td>
<td>4.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>74</td>
<td>199</td>
<td>2.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
with above-average IQ than fifth grade with above-average IQ but not on a significant level. From this data it appears that the sixth grade pupils with above-average IQ have no significantly higher attitude scores when compared with both fourth and fifth grades or when treated with each grade separately.

The sixth hypothesis of this study states that older children with below-average IQ will have significantly higher mean favorable attitude scores than younger children with below-average IQ. On page 92, Table 7 presents the data associated with this hypothesis in four sections. The first section involves data of fourth, fifth, and sixth grade pupils with below-average IQ. Section two includes sixth and fifth grade pupils with below-average IQ, while sections three and four includes fifth and fourth grade pupils and sixth and fourth grade pupils with below-average IQ respectively.

Section one of Table 7 shows sixth grade children with below-average IQ to have significantly higher attitude scores than children with below-average IQ in grade four.
# Table 7

Comparison of attitude scores of fourth, fifth, and sixth-grade pupils with below-average intelligence quotient between different grade levels

<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>X</th>
<th>Standard Error</th>
<th>F</th>
<th>k</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>42</td>
<td>195</td>
<td>3.7</td>
<td>2.9096</td>
<td>5.1927**</td>
</tr>
<tr>
<td>5</td>
<td>48</td>
<td>185</td>
<td>4.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>42</td>
<td>184</td>
<td>3.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>132</td>
<td>188</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>42</td>
<td>195</td>
<td>3.2</td>
<td>3.8157</td>
<td>1.9534</td>
</tr>
<tr>
<td>5</td>
<td>48</td>
<td>185</td>
<td>4.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>90</td>
<td>190</td>
<td>2.9</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>48</td>
<td>185</td>
<td>4.3</td>
<td>0.1335</td>
<td>0.1156</td>
</tr>
<tr>
<td>4</td>
<td>42</td>
<td>184</td>
<td>3.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>90</td>
<td>185</td>
<td>2.9</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>42</td>
<td>195</td>
<td>3.2</td>
<td>6.5641*</td>
<td>2.562.*</td>
</tr>
<tr>
<td>4</td>
<td>42</td>
<td>184</td>
<td>3.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>84</td>
<td>190</td>
<td>2.2</td>
<td></td>
</tr>
</tbody>
</table>

**p < .01
*p < .05
Therefore, the data in this section would support the stated hypothesis. Sections two and three supply data that tend to refute the hypothesis. That is, no significantly higher attitude score was found between fifth grade pupils with below-average IQ when matched with fourth grade pupils with below-average IQ. The hypothesis has been refuted in these two areas. A highly significant difference was found in section four with a higher attitude score of sixth graders with below-average IQ when compared with fourth graders with below-average IQ which retains the hypothesis. With both samples, it seemed that two causes of the significance were either a higher sample size or remoteness of grade levels.

Hypothesis seven states that older pupils with above-average achievement will have a higher mean favorable attitude score than younger pupils with above-average achievement. Table 8 has data relating to pupils in grades four, five, and six with above-average achievement in the first section. The second section includes grades five and six with pupils with above-average achievement
<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>X</th>
<th>Standard Error</th>
<th>F</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>74</td>
<td>200</td>
<td>1.9</td>
<td>0.2867</td>
<td>0.3106</td>
</tr>
<tr>
<td>5</td>
<td>32</td>
<td>200</td>
<td>4.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>10</td>
<td>205</td>
<td>4.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>116</td>
<td>201</td>
<td>1.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.8396</td>
<td>0.2898</td>
</tr>
<tr>
<td>6</td>
<td>74</td>
<td>200</td>
<td>1.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>32</td>
<td>200</td>
<td>4.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>106</td>
<td>200</td>
<td>1.9</td>
<td>0.3376</td>
<td>0.58.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>74</td>
<td>200</td>
<td>1.9</td>
<td>0.7191</td>
<td>0.0460</td>
</tr>
<tr>
<td>4</td>
<td>10</td>
<td>205</td>
<td>4.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td>201</td>
<td>1.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
and the third and fourth sections include fourth and fifth grades and fourth and sixth grades with above-average achievement.

Table 8 shows no significantly higher attitude scores between any grade combinations, therefore refuting the hypothesis. This would seem to imply a close homogeneity of attitudes of pupils with above-average achievement regardless of the three grade levels in which they are students. It would seem, then, in this area the student's above average achievement score is more relevant in explaining his attitudes than his chronological age or years in school. Earlier in this chapter it was found that higher significant attitudes were found between pupils with above- and below-average IQ within each grade level as compared to lesser significant attitudes found between pupils with above- and below-average IQ between grade levels. As hypothesis eight deals with attitudes of pupils with above- and below-average achievement at each grade level, comparisons will be made between the IQ patterns of attitude response and the achievement responses.
The eighth hypothesis of this study states that pupils with above-average achievement at each grade level will have a higher mean favorable attitude score than pupils with below-average achievement. Table 9 presents the data findings in three parts. The first part will show results comparing sixth grade pupils with above- and below-average achievement. The second part includes attitudes scores of fifth grade pupils with above- and below-average achievement, and the third part includes attitude findings of fourth grade pupils with above- and below-average achievement.

As can be seen from the data results of Table 9, all three grade level sections support the hypothesis at high levels of significance. This result is in almost direct opposition to the data of Table 9, which compared with pupils with above-average achievement of one grade with pupils with above-average achievement of another grade. Therefore, it appears that there is a more significant difference in comparing the attitudes of pupils with above-average achievement to pupils with below average achievement in
TABLE 9

COMPARISON OF ATTITUDE SCORES OF FOURTH, FIFTH, AND SIXTH GRADE PUPILS WITH ABOVE-AND-BELOW-AVERAGE ACHIEVEMENT AT EACH GRADE LEVEL

<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>X</th>
<th>Standard Error</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 above average</td>
<td>74</td>
<td>200</td>
<td>1.9</td>
<td>6.7413*</td>
<td>2.5964*</td>
</tr>
<tr>
<td>6 below average</td>
<td>14</td>
<td>187</td>
<td>5.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>88</td>
<td>198</td>
<td>2.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 above average</td>
<td>32</td>
<td>200</td>
<td>4.0</td>
<td>8.6903**</td>
<td>2.9479**</td>
</tr>
<tr>
<td>5 below average</td>
<td>55</td>
<td>182</td>
<td>4.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>87</td>
<td>189</td>
<td>3.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 above average</td>
<td>10</td>
<td>205</td>
<td>4.7</td>
<td>7.7875**</td>
<td>2.7906**</td>
</tr>
<tr>
<td>4 below average</td>
<td>60</td>
<td>186</td>
<td>2.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>189</td>
<td>2.6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p < .01
*p < .05
the same grade than between pupils with above-average achievement of different grades. This result would seem to mean that a pupil's achievement score is more closely related to his expressed attitudes than his particular age or grade in school.

The pattern of relationship between a pupil's IQ score and his attitude followed a similar, but less significant, manner as a pupil's achievement score to his expressed favorable attitude score. Table 6 in this study disclosed a non-significant relationship between grades related to children's above-average IQ scores and their expressed attitude scores. This was the case in the findings of Table 6. However, the findings of Table 7 disclosed high significant relationships between a pupil's below-average IQ score and attitude score when the comparison was made between sixth and fourth grades. This seems to mean that a pupil's IQ score shows a clearer relationship to his attitudes, as expressed in the findings, than the relationship between his particular grade level and his expressed attitudes.

Pearson Product-Moment correlations were computed in order to test possible significant relationships between the students' stated attitude scores and the variables of...
the child's sex, grade in school, achievement score, and intelligence score. In grade four, the Pearson r between attitude and achievement scores was .46, and .01 was the significance level. The r between attitude and IQ scores in fourth grade was .22 at the .05 level of significance. Both fourth grade correlations were low, with the higher correlation found between achievement and attitude scores. The Pearson r for achievement and attitude scores in fifth grade was .39, at the .01 level of significance. The r for IQ to attitude scores was .51 at the .01 significance level. This is a comparative reversal to the fourth grade results.

The sixth grade correlation between attitude and achievement score was .35, at the .01 level of significance. The total sixth grade correlation between IQ to attitude scores was .23, at the .05 level of significance. The total sixth grade correlations seem to follow a similar pattern to the total fourth grade correlations. Separate Pearson rs were computed to test significant relationships between attitude and achievement scores at each grade, between
pupils with above-and-below-average achievement and pupils with above-and-below average IQ. No significant relationships were found in these sub-group comparisons by the Pearson Product-Moment technique.

Table 5 indicated more significant relationships found by the analysis of variance method to the areas mentioned in the last paragraph than was found by the Pearson Product-Moment technique. Table 9 indicated even higher significant relationships between achievement and attitude scores within grade levels than was found in Table 5 when IQ scores were measured with the attitude scores within grades.

More significant relationships were found between attitude and IQ scores, and attitude and achievement scores, by the analysis of variance method rather than by the Pearson correlation method. This result is probably due to the fact that the analysis of variance is more concerned with group relations while Pearson rs are concerned more with individual relations between two factors.
Another major comparison is that more significant results were found by the relating of achievement scores to attitude scores than by the relating of IQ scores to attitude scores. One possible reason for this result could be that a pupil's achievement score is a more reliable current indicator of his ability than the IQ score. Also, it would seem that a pupil with above-average achievement would have attitudes toward school ideals that were similar, or it wouldn't seem likely that most pupils could achieve learning success with low or negative attitudes. In this respect, the IQ seems to be a more passive indicator of attitudes, since the IQ score if accurate only indicates what a child can learn if he exerts the effort.

A check for internal consistency of questionnaire statements was used to test the reliability of the questionnaire. This was a form of the split-half technique for checking reliability of test items. Forty-eight pupils from the total sample had their responses checked against their own responses on other parts of the questionnaire. For example, each pupil was ranked on
his responses to ten favorable items, or five favorable items were ranked with five other favorable items, and five unfavorable or negatively oriented statements were ranked with five other negatively oriented statements in each pupil's questionnaire answer sheet.

Of the forty-eight pupils in the sample, sixteen were chosen for each grade. Within each grade, there were eight boys and eight girls selected on the basis of their achievement scores. This was done on the basis of using the mean achievement score, at each grade level, as a cut-off point to separate the pupils with above-and-below average achievement. Therefore, in each grade there were four pupils with above-average achievement, four pupils with below-average achievement, and four boys and four girls within each of these two achievement areas to make a total of sixteen for each grade level.

The correlation technique used to compute these reliability checks was the Spearman Rank Correlation. Table 10 shows a sample of how each pupil's responses were checked for reliability. Table 11 shows the results of

---

TABLE 10

Sample Table of How Each Pupil's Responses Were Checked for Reliability

<table>
<thead>
<tr>
<th>X</th>
<th>Y</th>
<th>D</th>
<th>D²</th>
</tr>
</thead>
<tbody>
<tr>
<td>N4</td>
<td>P5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>P5</td>
<td>P5</td>
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<td>0</td>
</tr>
<tr>
<td>P5</td>
<td>P5</td>
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<td>0</td>
</tr>
<tr>
<td>P5</td>
<td>P4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>P5</td>
<td>P5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>N4</td>
<td>N1</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>N5</td>
<td>N1</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>N4</td>
<td>N1</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>N2</td>
<td>N1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>N2</td>
<td>N1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total D²</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

| Spearman Rank Formula 1 minus 6(D²) divided by N²-N. The above score was correlated by first multiplying D² or 38 times 6 or 228. N equals the number of pairs, and therefore, N² is 10² or 1,000 minus N10 equals 990. The quotient of dividing 990 into 38.00 was .23, and the r of .77 was found by subtracting .23 from 1.00. Level of significance was at .01.

| X denotes an even score matched with another even score or Y score. The same procedure is true of uneven or negative oriented statements, matched with other negative statements in a random manner.

<p>| b | P equals positive oriented statements, while N equals negative oriented statements. |</p>
<table>
<thead>
<tr>
<th>Grade 4</th>
<th>Grade 5</th>
<th>Grade 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>.77</td>
<td>.71</td>
<td>.88</td>
</tr>
<tr>
<td>.73</td>
<td>.87</td>
<td>.83</td>
</tr>
<tr>
<td>.60</td>
<td>.92</td>
<td>.84</td>
</tr>
<tr>
<td>.79</td>
<td>.62</td>
<td>.90</td>
</tr>
<tr>
<td>.70</td>
<td>.90</td>
<td>.96</td>
</tr>
<tr>
<td>.79</td>
<td>.69</td>
<td>.82</td>
</tr>
<tr>
<td>.68</td>
<td>.81</td>
<td>.87</td>
</tr>
<tr>
<td>.60</td>
<td>.90</td>
<td>.81</td>
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<tr>
<td>.76</td>
<td>.96</td>
<td>.87</td>
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<tr>
<td>.57</td>
<td>.82</td>
<td>.73</td>
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<td>.85</td>
<td>.95</td>
<td>.88</td>
</tr>
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<td>.81</td>
<td>.60</td>
<td>.73</td>
</tr>
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<td>.74</td>
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<td>.87</td>
<td>.78</td>
<td>.78</td>
</tr>
<tr>
<td>.79</td>
<td>.86</td>
<td>.55</td>
</tr>
<tr>
<td>.93</td>
<td>.65</td>
<td>.90</td>
</tr>
</tbody>
</table>

Mean $\chi$: .75 to ** .82*** .82***

Total sample $\chi$ is .82 and significance level at .01. The significance level table for Spearman Rank sets $\chi$ of .564 at the .05 level and $\chi$ of .756 at the .01 level.


*** $p < .001$

** $p < .01$

* $p < .05$
the study by stating both the separate grade means of rank correlations and the total sample rank correlation based on the separate grade means combined into a total mean. Table 11 states the final reliability coefficient and its level of significance. The source that provided the method used in this reliability study was Kerlinger.4

From Table 11 it can be seen that all of the r scores out of a total of 48 correlations ranks were at least on the .05 level of significance. Thirty pupils' individual correlations was at the .01 level of significance, and eighteen pupils' individual correlations were at the .05 level of significance. An effort was made to randomize the matching of positive and negative items with each other of their own type. This meant that favorable statements of one concept area were matched with favorable statements of other concept areas. The same procedure was followed with negative oriented statements.

Weighted mean attitude scores by separate concept areas were derived for each grade level. This was done by multiplying the total responses of a grade to the weight.

assigned to that response. Each statement in the questionnaire was weighted 1 to 5 for positive statements and 5 to 1 for negative statements. If, for example, 47 fourth graders answered 2 for a positive statement, their weighted total for that response would be 47 times 2 or 94. Appendixes I and II show the weights and attitudes belonging to each concept area. Total means were computed for each concept area, by grade, and are shown in Table 12. Table 12 also shows, by grade, the rank order of concepts on a scale ranging from most popular to least popular.

As can be seen in Table 12, grade six had the highest weighted total mean attitude score followed by fifth grade and then fourth grade. This result seems to relate closely with most of the statistical data related to the first hypothesis of this study, that older or higher grade children will have more favorable attitude scores than younger or lower grade children.

The concept area of independent thinking had the lowest total grade attitude score selected by each grade level. One possible reason for this condition could be that children of these age levels are more
### Table 12

**Total Grade Weighted Mean Attitude Scores for Five Concept Areas**

<table>
<thead>
<tr>
<th>Concept</th>
<th>Grade 4</th>
<th>Grade 5</th>
<th>Grade 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group cooperation</td>
<td>493</td>
<td>656</td>
<td>663</td>
</tr>
<tr>
<td>Empathy</td>
<td>559</td>
<td>694</td>
<td>748</td>
</tr>
<tr>
<td>Independent thinking</td>
<td>462</td>
<td>597</td>
<td>609</td>
</tr>
<tr>
<td>Social responsibility</td>
<td>567</td>
<td>685</td>
<td>715</td>
</tr>
<tr>
<td>Democratic living</td>
<td>550</td>
<td>670</td>
<td>724</td>
</tr>
<tr>
<td><strong>Total Means</strong></td>
<td>526</td>
<td>660</td>
<td>692</td>
</tr>
<tr>
<td><strong>Standard Deviations</strong></td>
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<td>11</td>
<td>25</td>
</tr>
<tr>
<td><strong>Standard Errors</strong></td>
<td>7.7</td>
<td>5.0</td>
<td>11</td>
</tr>
</tbody>
</table>

*Note: T for Mean 4 to Mean 5 is significant at the .05 level. T for Mean 4 to Mean 6 is significant at the .01 level. T for Mean 5 to Mean 6 is significant at the .01 level.*

#### Order of Concepts, by Grade, from Most to Least Popular

<table>
<thead>
<tr>
<th>Grade 4</th>
<th>Grade 5</th>
<th>Grade 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social responsibility</td>
<td>Empathy</td>
<td>Empathy</td>
</tr>
<tr>
<td>Empathy</td>
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<td>Democratic living</td>
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<tr>
<td>Democratic living</td>
<td>Democratic living</td>
<td>Social responsibility</td>
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<tr>
<td>Group cooperation</td>
<td>Group cooperation</td>
<td>Group cooperation</td>
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<tr>
<td>Independent thinking</td>
<td>Independent thinking</td>
<td>Independent thinking</td>
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</tbody>
</table>

107
accustomed to passive learning and less familiar with problem-solving situations of an individual nature. The next least favorable concept for each grade was group cooperation. From one point of view, this may seem contradictory as independent thinking was also unpopular. However, the concept of group cooperation, as used in this study, was to try to determine if the child favored playing an active role in group work or play, which would seem to require a good deal of independent thinking.

Empathy was considered the most favorable, or next to most favorable, concept by each grade. As these children scored low on independent thinking, it may well be that the attitudes they expressed in the area of empathy were expressed feelings of what they thought was the right thing to say, on the basis of what they learned earlier from parents or teachers. Another explanation may be that children at these age levels are not yet sophisticated enough to give a relatively clear account of their true feelings in all of the concept areas. One negative advantage of this study could perhaps be to point up the difficulties of children to have consistently well understood attitudes.
Summary of Statistical Study

The first hypothesis of this study stated that sixth grade children would have higher mean favorable attitude scores than fourth or fifth grade children. The statistical results found in Table 1 of this chapter showed that grade six, when compared to grade five, had a higher total favorable attitude score at the .01 level of significance, and this same level of significance was found between the sixth and fourth grade attitude scores.

A possible reason offered for this result was that children that have spent more time in school may have acquired more of the favorable attitudes desired and stressed in the school program. Table 1's data also showed that sixth grade pupils had an even higher significant attitude score to fourth grade pupils than between sixth grade and fifth grade pupils. A reason offered for this more significant relationship was that sixth grade children, compared to fourth grade children, have had more school experiences that may have oriented them to be more in agreement with those attitudes most
desired by the school.

Hypothesis two of this study stated that there would be a significantly higher mean attitude score of favorable attitudes by girls' scores compared to boys' scores at each grade level. Table two's data did not show a significant difference in attitude scores between sixth grade boys and sixth grade girls and fifth grade boys and fifth grade girls. In the case of these two grades, then, the hypothesis was rejected.

A significant difference was found in the attitudes expressed by fourth grade boys and girls. The data in Table 2 showed that fourth grade girls had a significantly higher mean favorable attitude score than fourth grade boys. The hypothesis was retained for the fourth grade classes. A possible reason that was offered for the fourth grade girls' high attitude scores was that younger girls may conform more to the views they hear from parents and teachers at home and in school, and that they may be more verbally developed than boys at this age level.
The third hypothesis stated that older boys and girls will have significantly higher mean favorable attitude scores than younger boys and girls within their respective sexes. One section of the data in Table 3 showed that sixth grade boys had significantly higher mean attitude scores than fourth or fifth grade boys. This result supported the third hypothesis. Another area of Table 3 showed, again, that sixth grade boys had significantly higher favorable attitude scores than fifth grade boys, and the hypothesis was retained in this area also. The hypothesis was rejected in the case of fifth grade boys, as no significantly higher mean attitude score was gained by the fifth grade boys.

The highest significant attitude score was shown by sixth grade boys when compared with fourth grade boys. As the fifth grade boys had no significantly higher mean than fourth grade boys, the difference could perhaps be attributed to a greater difference in school experience between sixth grade boys and fourth grade boys than between fourth and fifth grade boys.
The data of Table 4 disclosed that no significant mean difference was found between older and younger girls at any of the three grade levels. However, in each grade level, girls had higher mean favorable attitude scores than boys and girls' variability in scores was greater. One possible reason for this condition was believed to be that girls at these age levels are more independent in their thinking than boys or are more willing to express their felt attitudes than boys.

The fourth hypothesis of this study stated that children with above-average IQ at each grade level would have significantly higher mean favorable attitude scores than children with below average IQ. The first two sections of Table 5 showed no significant difference in the attitude scores of sixth grade pupils or fifth grade pupils with above-and-below-average IQ. Therefore, the fourth hypothesis was rejected at these grade levels.

The third section of Table 5 showed that fourth grade children with above-average IQ had significantly higher mean favorable attitude scores than fourth grade
children with below-average IQ. The hypothesis was retained at this grade level. One reason given for the significance in fourth grade attitudes was that younger children may cling more to learned attitudes from parents and teachers than do older children.

Hypothesis five claimed that older children with above-average IQ would have significantly higher mean favorable attitude scores than younger children with above-average IQ. The data in Table 6 showed that sixth grade children with above-average IQ scores had no significantly higher favorable attitude scores than fourth or fifth grade children with above-average IQ. Therefore, the fifth hypothesis was not retained.

The sixth hypothesis said that older children with below-average IQ would have significantly higher mean favorable attitude scores than younger children with below-average IQ. One section of Table 7 showed sixth grade children with below-average IQ to have significantly higher attitude scores than children in grades four or five with below-average IQ. Therefore, the data in this section
would retain the stated hypothesis.

The hypothesis was rejected in the comparison of attitude scores of fifth grade and fourth grade children with below-average IQ. In a later part of Table 7, a highly significant relation was found between the attitude score of sixth graders with below-average IQ which was higher than the score of fourth graders with below-average IQ retaining the hypothesis. Again, the factor of time spent in school may have been more significant than the IQ factor.

Hypothesis seven stated that older pupils with above-average achievement would have a higher mean favorable attitude score than younger pupils with above-average achievement. The data results presented in Table 8 showed no significantly higher attitude scores between any grade combinations. This resulted in a refutation of the seventh hypothesis. This seemed to imply a closer homogeneity of attitudes of pupils with above-average achievement regardless of the three grade levels in which they are students. It would seem, then, in this area that the students' higher achievement scores are more relevant
toward explaining their attitudes than their chronological age or years in school.

Earlier in the study, higher significant attitudes were found between fourth grade pupils with below-average IQ as compared to lesser significant attitudes found between sixth and fifth grade pupils with below-average IQ within their grade levels. As hypothesis eight dealt with attitudes of pupils with above-and-below-average achievement at each grade level, comparisons were made between the IQ patterns of attitude responses and the achievement responses.

The eighth hypothesis of the study stated that pupils with above-average achievement at each grade level, will have a higher mean favorable attitude score than pupils with below-average achievement. Table 9 presented the data findings in three sections, with each section representing a comparison of scores between sixth grade with above-and-below-average achievement, and fifth and fourth grade with above-and-below-average achievement, respectively. In each section the results showed a significantly higher mean attitude score of pupils with
above-average achievement over pupils with below-average achievement and, therefore, supported retention of the eighth hypothesis.

The results of the within-grades' variance of Table 9 were in almost direct opposition to the results of the between grades' variance of Table 8. It would seem, then, that there is a more significant difference in comparing the attitudes of pupils with above-average achievement to pupils with below-average achievement in each grade than between grades. The implication seems to be that a pupil's achievement score is more related to his expressed attitudes than his particular age or grade in school.

The relationship pattern between a pupil's IQ score and his expressed attitudes followed a similar, but less significant, manner as a pupil's achievement score to his expressed favorable attitude score. The results of Table 6 disclosed a non-significant relationship, between grades, relative to children's above-average IQ scores and their expressed attitude scores. A reverse situation was found in Table 7. The findings disclosed a high significant relationship between a pupil's below-average IQ score and
attitude score, when the comparison was made between the sixth and fourth grades. Although of lower significance than achievement scores to attitude scores, the interrelations of IQ to attitude scores, as with achievement scores to attitude scores, showed higher significant relations within grades than between grades.

Pearson Product-Moment correlations were computed in order to evaluate any possible significant relationships between the students' stated attitude scores and the variables of the child's sex, grade, achievement score, and intelligence score. The Pearson r between attitude and achievement scores, in the fourth grade, was .46, and .01 was the significance level. The r between attitude and IQ scores in fourth grade was .22 at the .05 level of significance. Both of the fourth grade correlations were low, with the higher correlation found between achievement and attitude score.

The Pearson r for achievement and attitude scores in fifth grade was .39, at the .01 level of significance, and for IQ to attitude scores was .51 at the .01 level. This was a comparative reversal to the fourth grade results,
as the fourth grade correlations were higher between achievement and attitude scores, rather than between IQ and attitude scores.

The correlation in sixth grade between attitude and achievement score was .35, at the .01 level of significance. The total sixth grade correlation between IQ to attitude scores was .23 at the .05 level of significance. The total correlations of the sixth grade followed a similar pattern to the total fourth grade correlations.

It was found in Table 5 that more significant relationships were found by the analysis of variance method to the areas mentioned in the last paragraph than was found by the Pearson Product-Moment Technique. The data results in Table 9 indicated even higher significant relations between achievement and attitude scores within grade levels, than was found in Table 5 when IQ scores were measured with the attitude score within grades.

A larger amount of significant relationships were found between attitude and IQ scores, and attitude and achievement scores, by the analysis of variance method.
rather than by the Pearson correlation method. This result was partly attributed to the fact that the analysis of variance is more concerned with differences between two or more groups, while the Pearson rs are more concerned with individual relations between two factors.

Another major comparison was that more significant results were found by the relating of achievement scores to attitude scores than by the relation of IQ scores to attitude scores. One possible reason for this result might have been that a pupil's achievement score is a more reliable current indicator of his ability than his IQ score. Also, it would seem that a pupil with above-average achievement would have attitudes toward school-oriented ideals that are close, or it wouldn't seem likely that most pupils could achieve learning success with low or negative attitudes toward school life. In this respect, it was believed that the IQ was a more passive indicator of attitudes, as the IQ score, if accurate, only indicates what a child can learn if he exerts the effort.
The reliability of the attitude questionnaire was tested by an internal consistency check of the questionnaire's statements. A form of the split-half technique was used to test reliability of the statements. Forty-eight pupils from the total sample had their responses checked against their own responses on other parts of the questionnaire. Each pupil was ranked on his responses to ten favorable items, or five favorable items were ranked with five other favorable items, and five unfavorable items were ranked with five other unfavorable items. In the case of both item types, matching statements were selected from other concept areas to give more random selection to the sample.

Using each grade's mean achievement score as a cut-off point, four boys with below-average achievement, four girls with below-average achievement, four boys with above-average achievement, and four girls with above-average achievement were selected for each grade, or a total of sixteen pupils per grade. This type of selection was made to also help give a wider sample of pupil background to the study.
The Spearman Rank Correlation was the technique used to compute the reliability sample. Table 10 shows how each pupil's responses were checked for reliability. Table 11 showed the results of the study, by stating both the separate grade means of rank correlations and the total sample rank correlation based on the separate grade means combined into a total mean. Table 11 also gave the final reliability coefficient and its level of significance.

From Table 11, it was found that all r scores, out of a total of forty-eight correlation ranks, were at least on the .05 level of significance. Thirty pupils' individual correlations were at the .01 level of significance, and eighteen pupils' individual correlations were at the .05 level of significance. An effort was made to randomize the matching of positive and negative items with others of their own type, but of a different concept area. The total correlation rank for the whole sample was an $\bar{x}$ of .80 or a reliability coefficient of .80$^2$ or .64, which is significant beyond the .01 level.
A weighted mean attitude score, for each separate concept area, was derived for each grade level. This was accomplished by multiplying the total responses of a grade to the weight assigned to that response. A weight of 1 to 5 was assigned to each positive statement, and a weight of 5 to 1 was assigned to each negative statement in the questionnaire. Appendixes I and II show the weights and attitudes belonging to each concept area, the total means that were computed for each grade, by concept area, were shown in Table 12. Table 12 also shows, by grade, the rank order of concepts on a scale ranging from most popular to least popular.

The results of Table 12 showed the sixth grade to have the highest weighted total mean favorable attitude score, followed by the fifth grade and fourth grade. This grade response pattern related, closely, with most of the statistical data related to the first hypothesis of the study, that older or higher grade children would have significantly higher favorable attitude scores than younger or lower grade children.
Independent thinking was the least favorable concept area chosen at each grade level. One possible reason offered for this result was that children, of these age levels, were more accustomed to passive types of learning, and less familiar with problem solving experiences on a more individually oriented basis.

Group cooperation was the next to least favorable concept selected by each grade. One point of view was offered that this may seem contradictory as independent thinking was also an unpopular concept. However, the concept of group cooperation, as the concept statements in this area tried to test, was to help determine if the child preferred playing an active role in group activities, which would seem to require a good deal of independent thinking. Therefore, from this point of view, it seems to be reasonable to assume these two concept areas to be close, selectively, as either highly favorable or unfavorable.

The most favorable selected concept, or next to most favorable selected concept, was empathy. The belief
was stated that, as the children in each grade scored low on independent thinking, it may well be that their expressed attitudes, in the area of empathy, were expressed feelings of what they thought were the right things to say, on the basis of what they had learned earlier from parents and teachers.

Another explanation offered was that children, at these age levels are not yet sophisticated enough to give a relatively clear account of their true feelings in all of the concept areas. An examination of Table 12 will show that higher grade children had higher mean attitude scores in even the least popular concept areas. This follows a pattern that is consistent, for the most part, with other variable relations to attitudes in this study. It was suggested that one possible negative advantage of this study could be to perhaps point up the difficulties of children to have consistent well understood attitudes in various concept areas.
CONCLUSIONS AND IMPLICATIONS FOR FUTURE STUDY

Several patterns of responses seemed to follow quite consistently from the data collected from the responses of the children used in this study. With only one or two exceptions, the higher mean favorable attitude scores were usually attained by higher grade children when their responses were compared with the responses of lower grade children. A suggested reason for this outcome was that since older or higher grade children have spent more time in school, they may have adopted more of those attitudes and concepts most desired and stressed in the school program. It is also possible that older children have better learned those school-oriented attitudes even if they haven't yet adopted them in their daily behavior.

Another fairly consistent attitude response pattern was that children with above-average IQ had a higher mean
favorable attitude response than children with below-average IQ. This may be due to the idea that children with above-average IQ can better understand and express their attitudes than children of below-average IQ. Their future behavior may be improved by having the knowledge of these attitudes. Another reason may be that children with above-average IQ with more success in school life may more readily adopt school desired concepts and attitudes than children with below-average IQ.

Pupils with above-average achievement at each grade level were shown to have higher mean favorable attitude scores than pupils with below-average achievement. Two reasons stated for this result were similar to those just given in the area of IQ scores. That is, Pupils with above-average achievement at each grade level may be better able to understand and express their own attitudes and might also be more apt to agree with school oriented attitudes than may be true of pupils with below-average achievement.

In both the variable areas of intelligence and achievement scores, the pupil's age factor seemed to play
a less significant part in his expressed attitude score. That is, there were usually less significant differences in the favorable attitude means of sixth grade children compared with fourth grade children, when sixth graders with above-or-below-average IQ or achievement were matched with fourth graders with above-or-below-average IQ and achievement. It didn't seem therefore, that the longer a child spent time in school, the more likely he was to accept the attitudes considered important by the school. Also, these differences were not so apparent between sixth and fifth grades or between fifth and fourth grades when each variable was studied separately.

Another apparent response pattern was seen in the study of between-grades variance and within-grades variance. This was more vivid in the comparisons between achievement scores and attitudes than between IQ scores and attitudes. The pattern seemed to indicate that more significant differences in mean attitude scores existed between the pupils with above-and-below-average achievement within their own grade level than between pupils with above-or-below-average achievement of one level to similar members of
another level. The reason offered for this outcome was that achievement scores may have been a more reliable indicator than years spent in school.

The same pattern was true, to a lesser degree, in the case of IQ scores. The reason given for this lesser degree of significance of IQ scores was that achievement scores were, perhaps, a more current indicator of a child's behavior and attitudes. Another reason offered was that a pupil with above-average achievement would seem to be more in agreement with school desired attitudes since a negative school attitude could affect his school achievement performance. In general, more significant relationships were found between achievement and attitude scores than between IQ and attitude scores.

At each grade level the girls' responses on attitudes were fairly consistently higher than the boys' responses, although not on a significant level. One reason suggested for this result was that girls may tend to conform more rigidly to the attitudes expressed by their parents and teachers than do boys. Another reason could perhaps be that girls at these age
levels are more emotionally and intellectually mature than boys and may, therefore, be better able to recognize and express their own attitudes. A negative cause may be that most teachers at these levels are women, and that, therefore, girls more than boys may find it easy to identify with the beliefs of women teachers. A further reason may be that girls can read more effectively than boys at these age levels.

Even though many parts of the major eight hypotheses in this study were retained at significant levels, it cannot be said with complete certainty that those attitudes expressed by the pupils are what they really believe, or what they thought was the correct attitude response based on the influence of parents and teachers. An attempt was made to control this problem by randomizing the attitude statements in the questionnaire, or separating concept area statements, in order to avoid mechanical responses or a possible halo effect response. An attempt was made to control the latter by stating half of the items in a positive manner and half in a negative
Primarily, this study dealt with the eight major hypotheses. However, it was considered important to include a section devoted to an attitude response pattern, by separate concept, with each of the three grade levels. Mention has been made that the least favored concept, by each grade level, was the concept of independent thinking.

A suggestion for future research in this concept area could be a study of an experimental and controlled classroom situation. In such a situation, the experimental groups could be given specific training in problem solving and other critical thinking skills, while the controlled groups would not receive such orientation. After a period of time, an attitude questionnaire could be administered to both groups revealing attitudes favorable or unfavorable toward independent thinking skills. This suggestion is made because a possible cause of the low responses to the independent thinking concept may have been a lack of independent thinking experiences by children in school.
Several other possibilities for future research can be mentioned at this point. One possibility could be to give a similar attitude questionnaire to just sixth grade children. Then, a year later, give the same questionnaire with two items revised to the same group of students. This could offer the effects of a year's growth on the children's later responses.

A second possibility could be to give a similar attitude questionnaire to fifth, seventh, and ninth grade students, since it may be that fourth graders are too young to state accurately their true attitudes. The wording would have to be altered, however, for older students, since too simple a wording could result in a possible halo effect of responses. With older students, also, it may be possible to include more items of a more subtle nature.

Another device for testing attitudes could be a form of projection. That is, each student could be asked to complete a statement that was worded to determine his attitude toward a given concept or behavioral area. This
form of test would seem to require much more critical thinking on the part of the student than just true-or-false responses or multiple choice items.

The writer hopes that his study will help educators to gain newer insights into attitude areas that should receive more stress in both teaching techniques and school curriculum. The idea that pupils with high achievement, when compared by grade levels, have made no gains from year to year in attitude scores, could suggest that these children might continue to grow in these areas if teachers would deliberately offer experiences to strengthen desirable attitudes.
APPENDIX I

CONCEPT AREAS AND RELEVANT ATTITUDE STATEMENTS
List of Major Concept Areas and Related Attitude Statements

The number preceding each attitude statement denotes its position on the questionnaire.

Concept - Group Cooperation

Attitude statement

1. I would usually prefer to work with others than to work alone.

21. Group work is more interesting than working alone.

31. I like to play in team games rather than to play alone.

41. I like to share my ideas with others in group work.

46. I think it's more important to help my team win than to try to be the star of the team.

16. I usually prefer to work alone rather than with others.

26. I like playing games alone rather than with others.

36. I think it's more important to be the star player than to try to help my team win.

50. I usually don't like to share my ideas with others.

15. I would rather be told what rules to obey, than have to help in making up rules.
**Concept - Empathy**

*Attitude statement*

2. I feel sorry when someone is treated unfairly.

7. I wish some of my classmates had nicer homes and clothes.

12. I like to help other children having trouble with schoolwork.

17. I am sorry for children who work hard in school and still get low marks.

32. When someone loses a game to me, I usually tell him how well he played.

22. It doesn't bother me when someone else is treated unfairly.

27. When someone loses a game to me, I like to tell him how I played better.

37. I don't like children who don't have as nice homes or clothes as I do.

42. I'm glad when other children get lower marks in school than I.

47. I only like to help children who are my close friends.

**Concept - Independent Thinking**

*Attitude statement*

3. I like to try to solve new problems by myself.

11. I want some friends who think differently from me.
18. I like it when the teacher lets us search in books for hard answers.

23. I like to take toys apart to see how they work.

28. I like to try to solve hard puzzles.

6. The friends I like best are the ones who think the way I do.

8. I become very nervous when I can't find quick answers to problems.

13. I like a teacher always to tell me just how to do things.

33. I don't enjoy working at hard puzzles.

38. I don't like to make up poems or draw pictures.

**Concept - Social Responsibility**

**Attitude statement**

4. I usually report students who have broken school rules.

9. I try to tell my friends to obey school laws.

10. I think a citizen should obey all laws.

14. I obey signs that tell me to stay off someone's property.

34. I usually try to obey rules.

19. I only obey laws that I like.

24. I often like to do things behind the teacher's back.

29. It's usually all right to cheat if you don't get caught.
39. I don't care if other children break school rules.

40. I only obey my parents when I like what they ask me to do.

**Concept - Democratic Living**

**Attitude statement**

5. I think other people should have the same rights as I do.

20. I like it when my teacher lets us help to make class rules.

35. My teacher and parents should try to teach me to be fair with other people.

40. A good leader must want to be fair with everyone.

44. I think that many children should have beliefs different from mine.

25. I like it when I have more freedom than my classmates.

30. I think a good leader is one who does the things I like.

45. I like it when my teacher treats me better than my classmates.

43. The only children I try to be fair with are my friends.

48. Other children's rights are not as important as mine.
APPENDIX II

SAMPLE OF QUESTIONNAIRE USED IN
EVALUATING STUDENT ATTITUDES
INSTRUCTIONS: After you read each statement carefully, check one of the boxes at the right that tells how you feel about each statement.

NOTE: Blank spaces left in questionnaire implies that the scoring, from left to right boxes, is 1, 2, 3, 4, and 5.

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<th>Don't really care</th>
<th>Mildly agree</th>
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1. I would usually prefer to work with others than to work alone.
2. I feel sorry when someone is treated unfairly.
3. I like to try to solve new problems by myself.
4. I usually report students who have broken school rules.
5. I think other people should have the same rights as I do.
6. The friends I like best are the ones who think the way I do.
7. I wish some of my classmates had nicer homes and clothes.
8. I become very nervous when I can't find quick answers to problems.
9. I try to tell my friends to obey school laws.
10. I think a citizen should obey all laws.
11. I want some friends who think differently from me.
12. I like to help other children having trouble with school work.
13. I like a teacher always to tell me just how to do things.
14. I obey signs that tell me to stay off someone's property.

15. I would rather be told what rules to obey, than have to help in making up rules.

16. I usually prefer to work alone rather than with others.

17. I am sorry for children who work hard in school and still get low marks.

18. I like it when the teacher lets us search in books for hard answers.

19. I only obey laws that I like.

20. I like it when my teacher lets us help to make class rules.

21. Group work is more interesting than working alone.

22. It doesn't bother me when someone else is treated unfairly.

23. I like to take toys apart to see how they work.

24. I often like to do things behind the teacher's back.

25. I like it when I have more freedom than my classmates.

26. I like playing games alone rather than with others.

27. When someone loses a game to me, I like to tell him how I played better.

28. I like to try to solve hard puzzles.

29. It's usually all right to cheat if you don't get caught.
30. I think a good leader is one who does the things I like.
31. I like to play in team games rather than to play alone.
32. When someone loses a game to me, I usually tell him how well he played.
33. I don't enjoy working at hard puzzles.
34. I usually try to obey rules.
35. My teacher and parents should try to teach me to be fair with other people.
36. I think it's more important to be the star player than to try to help my team win.
37. I don't like children who don't have as nice homes or clothes as I do.
38. I don't like to make up poems or draw pictures.
39. I don't care if other children break school rules.
40. A good leader must want to be fair with everyone.
41. I like to share my ideas with others in group work.
42. I'm glad when other children get lower marks in school than I.
43. The only children I try to be fair with are my friends.
44. I think that many children should have beliefs different from mine.
45. I like it when my teacher treats me better than my classmates.

46. I think it's more important to help my team win than to try to be the star of the team.

47. I only like to help children who are my close friends.

48. I only like to help children whose rights are not as important as mine.

49. I only obey my parents when I like what they ask me to do.

50. I usually don't like to share my ideas with others.
Books


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**Articles**


Unpublished Material


BIOGRAPHICAL DATA

Name: David H. Zodikoff

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