

A STUDY OF CHARACTERISTICS OF FIFTH AND  
SIXTH GRADE STUDENT LEADERS AND  
FOLLOWERS IN CONTRASTING  
SOCIO-ECONOMIC SETTINGS

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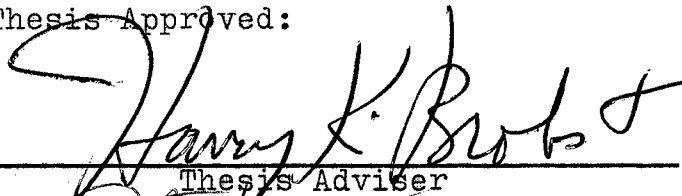
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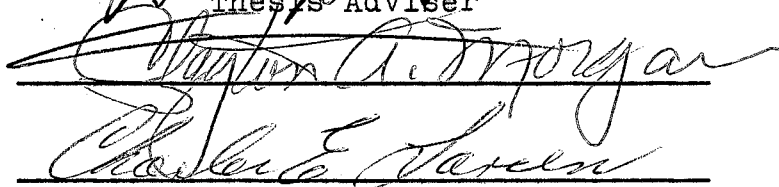
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## CHAPTER I

### INTRODUCTION

As one reviews the literature involving student leadership, it becomes readily apparent that a great deal has been written about "group process" and "group dynamics" and its importance to our society, nation, and world. A considerable amount of material has also been published concerning groups and their relationship to the educational process. When groups are discussed, leadership becomes an important related topic. This study deals with student leadership in the elementary school, which is recognized as one of the critical levels of educational development. Students in the upper elementary school years are particularly sensitive and receptive to the actions and directions of their peer leaders. This is a time in their lives when they tend to turn away from adult direction and look toward their peers for companionship and behavior models to follow. (22, p. 132) H. B. McDaniel (28) has stated that, "advanced in psychology in both learning theory and in the psychology of development have made it clearer than ever before that behavior is learned and learning can be planned." He also feels that



learning difficulties can best be identified and treated in the elementary years.

The expansion of guidance services in the elementary schools should be helpful and contribute considerably to our knowledge of student leadership and peer relationships. Administrators, guidance personnel and teachers working on the elementary level should become involved in research of this nature. Much can be done to help the teacher at the elementary school level and a great deal can be learned from him because he is the individual that has the daily personal contact with the child. Wrenn (41, p. 149) comments, "The teacher is in a most favorable position for observation of behavior and shares with the counselor the responsibility for the identification of children with special needs." Many services should, therefore, be directed toward helping the teacher to understand how he may better provide for and help each student meet his individual needs.

Since 1958 we have witnessed the unprecedented impact on the schools of our nation of the National Defense Education Act and its subsequent renewals. At this time it is difficult to fully realize the long range effect that this federal legislation will have upon our schools. (30, page 164) As a result of this encouragement and impetus offered by the Federal Government and other recent developments, the past nine years have been a period of "Renaissance" in the field of guidance. Miller

(31, p. 297) states, "The National Defense Education Act has unquestionably stimulated secondary schools throughout the country to expand and improve their guidance services, facilities, and personnel."

Resulting from this "crash program" in guidance and counseling and other closely related fields, a massive quantity of published research and materials in this field has appeared. Much has been written about principles, organization, philosophy of guidance, and techniques of counseling, but comparatively little new research or writing has been done in the area of student leadership on the elementary school level. As guidance programs and services become more prevalent in the elementary grades, interest in student leadership will naturally follow. Although elementary guidance programs should maintain a close relationship with secondary guidance programs, each should develop services that relate directly to the specific needs of the student at a particular grade level. (11, p. 360) Programs for the identification of student leaders and for building student leadership could become an important function of the elementary school counselor.

As a result of the "War on Poverty" and the Economic Opportunity Act there has been an upsurge of interest in the elementary school education of children living and attending school in impoverished areas. It has been estimated that one-third of our public school students in the fourteen largest cities are culturally deprived,

and that this proportion will increase rapidly in the next ten years unless active steps are taken within the community and within the schools. (41, p. 37) In this study a comparison will be made between characteristics of fifth and sixth grade student leaders and followers in a high socio-economic area and their counterparts in a considerably lower socio-economic area. A study of this nature should be of particular interest and value to the educational leaders and teachers of the poverty areas.

### The Problem

The problem of this study is to determine if there are significant differences in characteristics of group leadership within fifth and sixth grade classes in widely contrasting socio-economic environments. An additional aspect of this problem will include a study of followers within the same fifth and sixth grade classes.

### Need for the Study

The concept of "leadership" seems to be universally accepted as an important quality, and if this is true, it seems logical that we need to know more about what produces constructive leaders and, conversely, what produces destructive leaders. Having a thorough knowledge of this, we could then construct and introduce the teaching tools that would be conducive to the development of constructive leadership as opposed to destructive leadership. Once the

leaders have been identified, then the proper teaching tools could be implemented to change negative leadership into a positive, constructive force.

There is little evidence that most elementary teachers attempt in a positive, knowledgeable and objective way to teach and produce positive and effective student leadership. Lippitt and White (27, p. 27) state:

The issue of just what constitutes "good" leadership has become very important to people in education and except for a few exceptions little research has been conducted to help the people in the profession of education.

There needs to be a curricular approach to the teaching and development of leadership similar to the curricular approaches we use in the teaching of spelling, arithmetic and social sciences. As previously mentioned in the introduction, guidance services are being expanded into the lower age groupings in our school systems. This is evidently developing because of the realization that all children have needs and problems and that many of these problems originate during the elementary years. It is important to begin with good guidance practices in the early years because many of these problems become more intense as the student with whom we are dealing becomes older. (9, p. 1) Peer leadership is an area of study that has not been thoroughly developed on the elementary school level, and the writer feels that students of this age group are particularly impressed by the deeds of the students they have selected as their leaders.

As guidance services expand into the elementary schools, it will be increasingly important for student personnel workers to understand the dynamics of student interaction and peer leadership. Miller (31, p. 11) states:

Guidance is particularly valuable in lower grades because there the guidance worker can often make effective use of preventive measures. It is in the elementary school that pupils acquire values and form attitudes that will have a lasting effect upon their behavior. The need for remedial services at the secondary school level might be less pressing if we were to give greater attention to preventive measures at the elementary level.

One of the vital functions of the guidance counselor at this level (as in the upper grades) is to help the individual student to know himself better and to understand his role and position with his peer group. Jersild (36, p. 271) feels that we can do much more in this area of self understanding at an early age and that young children have more capacity for learning the realities of life than we have assumed in our educational and psychological practices. Probably of equal importance is the task the counselor has in working with and assisting the teacher to gain insight in the understanding of his students and taking an increasing interest in the individual differences and interrelationships between his pupils.

Cottingham (8, p. 14) points out:

A significant function of guidance efforts in elementary schools is the improvement of interrelationships among pupils, not only as a social-skills aim but as an aid to working out pupil adjustment problems.

The problem of student interaction is probably more

significant as a result of the self-contained classroom organization that is typical of the elementary level throughout the nation.

The writer feels that any study related to the increased understanding of children, and especially children in a low socio-economic environment, could be helpful to those individuals who are sincerely interested in the improvement of the educational opportunities and experiences of these children. A study of this nature will produce new aspects of student leadership that have been dealt with infrequently.

#### Scope of Study

The student leaders and followers were selected from twenty self-contained fifth and sixth grade classrooms; these leaders and followers were identified by their peers and teachers through the use of a combination of sociometric techniques. Following the identification and the selection process, a comparison was then made between the leaders and followers from the contrasting settings on such variables as: academic intelligence, school achievement, self-concept, and attitudes toward school.

The dependent variable in the study is what is commonly referred to as student leadership. For this study student leadership is defined as the ability or personal quality that allows a student or group of students to command respect and to exert considerable influence on the

behavior of the remaining students in a particular group. The direction of this interaction between the leaders and followers may be of a positive or a negative nature.

The independent variables are the identified characteristics of the leaders and followers in the different classrooms. The academic ability ratings determined by standardized group tests of the leaders and followers in the two contrasting groups are a significant independent variable. An additional variable is scholastic achievement as measured by ratings on a school attitude scale and a study of the students' self-concept have also been investigated.

Certain intervening variables exist which affect this study. One such variable is concerned with student enrollment and classroom membership; there has been some change in the classroom groups and this may have influenced the leadership structure. Another intervening variable relates to individual teacher characteristics. In other words, the general climate of the classroom is established by the teacher through the manner in which he conducts and controls the class and how he deals with the leaders.

#### Limitations of Study

This study is limited to one geographical section of the United States (the West Coast). Generally speaking, the study includes classrooms in which the vast majority of the students are of Caucasian extraction. There were

some variations in the class enrollment and membership during the school year. The population of this area is quite mobile, especially in the low socio-economic area, and some students enrolled as the year progressed and others transferred out of the schools.

Another limitation that must be considered relates to the contrasting socio-economic environments in which the students live. The problem here is that an accurate measurement of environmental effect cannot be obtained, and this obviously has some influence on the results of this study.

### Hypotheses

The hypotheses are stated as follows:

Hypothesis 1: There will be no significant difference in intelligence as measured by the language, non-language, and total sub-scores of the California Short-Form Test of Mental Maturity on the fifth grade level between:

- A. Leaders from a high socio-economic setting and leaders from a low socio-economic setting.
- B. Followers from a high socio-economic setting and followers from a low socio-economic setting.
- C. Leaders from a high socio-economic setting and followers from a high socio-economic setting.
- D. Leaders from a low socio-economic setting and followers from a low socio-economic setting.



- E. Followers from a high socio-economic setting and leaders from a low socio-economic setting.
- F. Leaders from a high socio-economic setting and followers from a low socio-economic setting.

Hypothesis 2: There will be no significant difference in intelligence as measured by the language, non-language, and total sub-scores of the California Short-Form Test of Mental Maturity on the sixth grade level between:

- A. Leaders from a high socio-economic setting and leaders from a low socio-economic setting.
- B. Followers from a high socio-economic setting and followers from a low socio-economic setting.
- C. Leaders from a high socio-economic setting and followers from a high socio-economic setting.
- D. Leaders from a low socio-economic setting and followers from a low socio-economic setting.
- E. Followers from a high socio-economic setting and leaders from a low socio-economic setting.
- F. Leaders from a high socio-economic setting and followers from a low socio-economic setting.

Hypothesis 3: There will be no significant difference in scholastic achievement as measured by the language, reading, and arithmetic sub-scores on the California Achievement Test between:

- A. Leaders from a high socio-economic setting and leaders from a low socio-economic setting.

- B. Followers from a high socio-economic setting and followers from a low socio-economic setting.
- C. Leaders from a high socio-economic setting and followers from a high socio-economic setting.
- D. Leaders from a low socio-economic setting and followers from a low socio-economic setting.
- E. Followers from a high socio-economic setting and leaders from a low socio-economic setting.
- F. Leaders from a high socio-economic setting and followers from a low socio-economic setting.

Hypothesis 4: There will be no significant difference in the measured self-concept between:

- A. Leaders from a high socio-economic setting and leaders from a low socio-economic setting.
- B. Followers from a high socio-economic setting and followers from a low socio-economic setting.
- C. Leaders from a high socio-economic setting and followers from a high socio-economic setting.
- D. Leaders from a low socio-economic setting and followers from a low socio-economic setting.
- E. Followers from a high socio-economic setting and leaders from a low socio-economic setting.
- F. Leaders from a high socio-economic setting and followers from a low socio-economic setting.

Hypothesis 5: There will be no significant difference in the measured attitudes toward school between:

- A. Leaders from a high socio-economic setting and  
leaders from a low socio-economic setting.
- B. Followers from a high socio-economic setting and  
followers from a low socio-economic setting.
- C. Leaders from a high socio-economic setting and  
followers from a high socio-economic setting.
- D. Leaders from a low socio-economic setting and  
followers from a low socio-economic setting.
- E. Followers from a high socio-economic setting and  
leaders from a low socio-economic setting.
- F. Leaders from a high socio-economic setting and  
followers from a low socio-economic setting

#### Definition of Terms

##### Leaders:

Those students (approximately five in each classroom) who have been designated by the students and in most instances the teacher as the students who tend to set the examples and patterns of behavior for the majority of the students. These students are the sociometric "stars," the highest ranked in each class.

##### Isolates:

The students who were not chosen by their classmates on the sociometric ratings. These students are not included in the study.

##### Followers:

Those students who were sociometrically ranked

considerably below the selected leaders in each classroom. The pupils assigned to this category received minimal recognition from their classmates as classroom leaders and they were not identified as leaders by their teacher. A representative sample of five followers was selected from each classroom group. They are the students who normally do not take the initiative in classroom interaction and tend to emulate those whom they have chosen as leaders.

Self-Contained Classroom:

The elementary school classroom organization in which the student is assigned to one classroom and one teacher for the major portion of the school day, week, and year.

Socio-Economic Setting or Environment:

The selected residential and school areas from which the children come.

Sociometric Measurement:

A combined rating of both the "psyche" and "socio" types of sociometric measurement.

## CHAPTER II

### THE THEORETICAL FRAMEWORK AND REVIEW OF SELECTED LITERATURE

A massive quantity of published literature and research has been offered through the years in the study of groups. The study of groups and group dynamics is usually broken down into many related areas of concern. In a major portion of these publications, leadership becomes an important division of the descriptions and theories concerning groups.

In spite of the vast amount of literature compiled, leadership remains an undefined term. The fact that there has been a great deal of contradictory research in this realm of study has possibly led to some of the confusion that exists in the work related to this subject. Although there is confusion, misunderstanding, and lack of adequate investigation dealing with some psychological aspects of leadership, there are many findings and particular manifestations of leadership that have been thoroughly investigated. These findings have been confirmed consistently.

Gibb (12, pp. 267-84) feels that leadership has usually been closely related to personality traits, and the search for leaders has been guided in that direction.

In reality leadership is more closely related to the quality of an individual's role in a particular social situation. Groups usually nominate people for leadership positions and these choices usually depend upon the nature of the group and the goals of the group rather than the personality of the individual. But at any particular time in the interaction personality can become a factor. Leadership is therefore a combination of these two factors.

Leadership is an intricate state that has many factors directly related to the outcome of that leadership. It is a social situation that is affected by the interaction of many inconsistent and constantly altering variables. It is unlikely that one could isolate any variable and prove that it alone were responsible for the phenomenon called leadership. Some of the more obvious variables interacting and influencing leadership development are the structure and organization of the group, the group objectives, the personality of the individual or group, the environmental situation, responsibility feelings of the group, and what the members of the group and those on the outside expect from the group. (13, p. 27)

Another variable to be considered is the time span of the leadership role. Gibb (12, p. 268) states:

Leadership is not usually an enduring role unless an organization is built up which enables an individual to retain the role after he ceases to be qualified for it. In this case leadership becomes domination or mere headship. In the absence of such an artificial restriction, the interaction within the group is very fluid and

the majority group leader is that person who is able to contribute most to progress toward the common goal.

Leadership, then, could be considered a social role which depends upon a combination of abilities and traits and, of even more importance, the specific situation. In reference to this thought, Gibb (12, p. 270) comments:

Leadership then, is always relative to the situation (a) to the extent that a certain kind of situation is required before the leadership relation will appear at all, and (b) in the sense that the particular set of social circumstances existing at the moment determines which attributes of personality will confer leadership status and consequently determines which members of a group will assume the leadership role, and which qualities of personality function to maintain the individual in that role.

In certain situations everyone cannot be a leader, but for any cause or activity there must be leaders. It is important to realize that the majority of people involved in any project will be followers. (7)

This leads directly into the theory that individual accession to the leadership role depends upon the goal the group has established and upon the ability of the individual to contribute toward the accomplishment of that goal. Pigors (37, p. 15) believes that we should not even discuss leadership in the abstract because people do not just lead unless there is a specific goal. Leadership is always related to an area of interest and directed toward a goal that is recognized by the leader and the followers. This discussion raises the question of the extent to which the leader can exert creative influence upon these goals.

Or must he be limited to merely contributing to already accepted group goals? In relation to this, Klineberg (23, p. 60) feels that a kind of compromise develops here in that a leader does have influence, but this is contingent upon the make-up of the group and the particular conditions that exist. The Lippit and White (26, p. 510) study illustrates how the same group of people react and perform in a different manner when directed by leaders who behave quite differently. In this regard they comment:

The adult-leader role was found to be a very strong determiner of the pattern of social interaction and emotional development of the group. Four clear-cut types of social atmosphere emerged in spite of great member differences in social expectation and reaction tendency due to previous adult-leader (parent, teacher) relationships.

There has been a considerable amount of investigation centered around the personality traits of the leader and those who were identified as non-leaders. Although it is true that research has shown that many personality traits consistently line up with leadership, it has been difficult to show a definite relationship because of the complexity of these two subjects. It has been difficult to establish a definition or a description of these phenomena or to find a means of measuring them that would be accepted by the majority. There are many traits that leaders tend to have more often than nonleaders. Some of these traits are higher measurable intelligence, self-confidence, dominance, activity, social participation, and surgency. Although investigations have shown that



leaders tend to be more intelligent, it has been pointed out that if they rank too far above the group, this leadership will not materialialize or will be of a short duration. (21, p. 287)

It is a common observation that a leader normally has self-confidence, and that this characteristic often leads others to believe that they can be helped by this individual. Gibb (13) concluded that is is necessary to have intelligent people to do the governing, but if the masses of people find it difficult to understand their leader, they prefer to be led, even in the wrong direction, by leaders who are easily understood.

Quite often people are motivated to seek leadership roles by their desire for power, but once the power is gained they are unable to assume an adequate leadership role because of their inability to meet the needs or reach the goals desired by the group. Haiman (16, p. 119) feels that in reality in the democratic society the leadership role is quite often passed around, and ideally, a person is a leader at times and a follower at other times. The desire for power is a characteristic that quite often accompanies the seeking of leadership and if this desire is accompanied by ability and the other necessary ingredients, leadership can develop; but when the power-seeking person strives only to improve his own situation or ego structure then the assumed leadership role will rapidly disintegrate. Abse and Jessner's (21, p. 86)

view of the problem is that the authoritarian or power-seeking leader finds it necessary to discourage intra-group communication unless it is expressed through him for his benefit. Leaders are active people and are usually participating and interacting throughout the group. Through this interaction, the leader or possible future leader is able to give much of a positive nature to the group and quite often as a result of this interaction is able to receive personal gratification.

It appears that if a person has certain personality traits then this in itself can greatly improve one's chances of becoming an accepted leader; but in all probability it will also be necessary that he has the additional skills that will be used to promote the welfare of the group and to direct the group in a positive direction toward its desired objectives. Therefore, the needs of the group are of vital importance in the selection of a leader by the group, and the fact that a particular person has certain personality traits and has demonstrated general superiority will place such a person in a position where he can contribute more often to meeting these group needs.

Early research on leadership dealt basically with the identification of characteristics of leaders. Selected leaders were chosen and an attempt was made to determine how they compared with their followers on a number of selected traits such as personality, intelligence, academic achievement, physical appearance, etc. Gouldner (15, p. 21)

classifies trait studies of leadership in two ways:

- (1) classification of trait analyses of leadership in terms of the method of study used; and
- (2) the relationship that is assumed to exist between the traits of leaders and the group or situational context.

Goulder discussed the inadequacies of the trait approach to the study of leadership. Most studies using this approach list the traits; the problem here is that the authors do not suggest which traits are important and which are unimportant. Many of the traits listed should not be listed separately, because in reality they are minor deviations of a more general trait. It is also likely that traits which help a person become a leader are not always the same traits used by one who is maintaining the leadership role. How do leadership traits develop? Were they there before the person became a leader? These are questions that many times are not given full consideration. It is usually mistakenly inferred that the traits the leader possesses were always there and are the reasons why the person became a leader. This may be the true picture, but many of the traits could have been acquired after the ascent to the leadership position. The study of personality traits is an area that has probably been misused because an essential part of personality, its organization, has not been considered. The position or arrangement of traits in a particular personality is of vital importance and should not be ignored. (15, pp. 23-25)

Generally speaking, it is probably true that a few traits and certain minimal abilities must exist in the make-up of a leader, but it is also likely that many of these traits also exist in the follower group. Bird (2, p. 379) examined the research prior to 1940 that was related to this subject and was able to discover a lengthy list of traits that supposedly differentiated leaders from non-leaders. In this investigation only about five per cent of his listed traits were common to four or more investigations.

With this thought in mind, it could be suggested that in the selection of a leader the task at hand is significantly important and that formal and final arrangements that allow a leader to maintain the responsibility for the success of all group goals is less than desirable. Consequently, the view that leaders are people with certain traits has been replaced by the theory that leaders should meet the group needs in a particular situation and be able to adapt to a wide variety of situations. Groups should be flexible in the assignment of leadership positions in relationship to the job at hand and the leadership process can also be improved by keeping open the channels of communication between the leader and the follower. In this congruent relationship, it is important that the leader be able to recognize changing group goals and be able to adjust his behavior to meet these changes. In this sense the leader can offer a high degree of trust and confidence

to the members of the group. If the leader trusts the membership of the group and has confidence in them he will be open, frank and permissive in goal setting and non-controlling in his personal and leadership policies. (12)

Because of the dissatisfaction with the trait theory approach to leadership, a different orientation that emphasizes the characteristics, development, direction, and organization of the group has come into view. Leadership, then, is closely related to the accomplishment of acts that aid the group in the achievement of desired objectives. Research developed in accordance with this theory would not be concerned with the variety of traits of leaders but would direct attention to the demands of a group and the degree in which the membership of the group took part in the function at hand. When the individual is able to recognize the real goal of the group, helps in the development of this group goal, has an unquestionable part in moving the group toward its objective, helps foster group cohesiveness, improves the quality of communication between members, and benefits the group in other critical areas of concern, then that individual or group of individuals will probably obtain a leadership role within the group. (6, p. 492) Each group insists that their leaders have certain qualities and normally selects leaders with this in mind. The group recognizes that the traits their chosen leaders have will assist them in the achievement of their desired goals: consequently, the attitude, structure, and

needs of the group are of paramount importance in the leadership selection.

There is a theoretical disagreement on just what constitutes leadership functions. Most theorists agree that a leader exerts considerably more influence upon the group than the average group member. The disagreement arises in the area of leadership influence, specifically the kinds of influence that can be designated definitely as a leadership quality. One theory is that all group functions and development of leadership are so closely related that individuals of the group will lead that group toward desired goals and acceptable group performance. With this theory in mind the researcher identifies group direction, decides which of the group functions are suitable to this movement, and then researches the behavior of individuals to decide if this behavior is making a contribution to the group direction or performance. Leadership is viewed as something an individual possesses in varying degrees rather than a separate entity in itself, and it is a quality that any member or all members in the group may have regardless of any formal assignment. The advocates of this theory would not refer to "the leader" of a group. (6, p. 493)

By testing functions which a leader may perform, Krech and Crutchfield (24, pp. 417-22) are describing leadership in a manner which limits its scope to certain fundamental processes. They list fourteen functions which

a leader may perform:

As an executive, planner, policy maker, expert, external group representative, controller of internal relationships, purveyor of rewards and punishments, arbitrator, exemplar, group symbol, surrogate for individual responsibility, ideologist, father figure, or scapegoat. In this approach to leadership the function concept of the group is maintained but the term leadership relates to a more specific classification of functions.

Cartwright and Zander (6, p. 494) state:

The concept of group (or leadership) function contains two important ideas. In principle, any member of a group may be a leader in the sense that he may take actions which serve group functions. The second idea is that a given function may be served by many different behaviors. According to this conception then, one and the same leadership function may be served by a variety of actions taken by a variety of people. It is the task of the researcher to discover the factors that determine what actions are performed by which members of the group.

This writer feels that the development of group or leadership function is certainly related to group goals. It appears that more research is necessary to determine the types of group goals that develop a variation of patterns in leadership behavior and the manner in which those selected goals foster this influence.

#### Selected Related Material

In this review of related materials, the writer will describe some of the earlier and more noteworthy examples in the literature dealing with leadership.

Cartwright and Zander's (6) work was written and organized for the purpose of systematically summarizing the

conclusions and theoretical interpretations of a vast amount of research on groups. It is a collection of many of the significant articles in the field of group dynamics which describe the methods and findings of research in this field. The authors of this publication felt that they could best handle this problem by grouping the available literature into several areas. Each section is introduced by a chapter that establishes the framework for relating the articles to one another. There are many articles in this book that are directly related to leadership and the sixth and final section of the text is devoted entirely to the reporting of research on leadership.

One of the more important studies in group leadership was developed at the Iowa Child Welfare Research Station. Lewin's (25) discussion of this experiment, which dealt with authoritarian and democratic leadership, is a classic in the study of group leadership. The measured child-to-child relationship in these two different atmospheres, authoritarian and democratic, was considerably different. There was a great deal more hostile domination, demands for attention, and hostile criticism in the autocratic atmosphere as compared to the more cooperative, praise of fellow members, and submissive behavior toward each other in the democratic atmosphere. A hostile and highly personal attitude development of an "I" feeling became prevalent as compared to the "we" feeling in the democratic atmosphere.



Lewin (25, p. 415) summarizes this development by stating:

On the whole, then, the style of living in both atmospheres governed the child relation as well as the child-leader relation. In the autocratic group the children were less matter-of-fact, less cooperative, and submissive toward their equals, but more submissive to their superiors than in the democracy.

He feels that because the leader in the autocratic setting is the only person that really has a high status, a definite tension develops and this tension is a basic factor which leads to the significant differences in the behavior of the members in the two groups. In the autocratic atmosphere there is a barrier which prevents others from acquiring a leadership role, whereas in the democratic setting the leadership function is encouraged and becomes a distinct possibility.

Lewin realizes that individual differences naturally have an important part in the development of any group situation but he doesn't feel that the results described here were greatly affected by individual differences. After the experiment had been underway for a period of time, a member of each group transferred to the other group and each student's behavior changed rapidly to conform to the existing group standards.

It was this study that propelled Lippitt and White (26) into their study of four clubs and the exposure of children to three varieties of leadership structure including a laissez-faire atmosphere.

Brown's (3) study of leadership among high school students was primarily concerned with the differences and similarities within a group which had been selected by their peers for positions of leadership. A good portion of the material presented would be of special interest to those responsible for establishing and sponsoring student leadership programs on the secondary level. He found that the student that held leadership positions in the extra-curricular activities of the school were a select group in many ways, and it was evident that these students were comparatively gifted. This superiority was recognized by their peers. The evidence tabulated in this study also pointed out that although the leaders were generally outstanding, they could not be classified as a homogeneous group. The leaders actually had a wide variety of interests and experiences and no typical pattern was evident. Actually, a wide variety of combinations of variables existed that tended to indicate diversity rather than any homogeneous organization. Brown feels there is a process that tends to nominate students that have superior qualities and have had a wide variety of experiences in and of school to important leadership positions, but this does not necessarily mean they come from one intellectual level, or one specific economic setting. There are many students who have the potential to serve in responsible positions but do not choose to do so or are not selected by their peers. This indicates there is a need to identify

and work with these potential leaders and improve their training to enable them to be more effective.

Another study of leadership among adolescent boys was made by Partridge (35) which led to the development and formulation of a procedure that one must undertake when studying leadership. The author listed these three criteria:

(1) development of a valid technique for identification of leaders within a group, (2) a study of the characteristics of the leaders as compared with those they lead, (3) a study of the leaders in action to determine (a) what their actual influence is upon the group, (b) their method of influence and how they use them.

The purposes of this study were to gain knowledge of the functioning of social groups, to establish a critique of previous studies of leaders and leadership, to develop an inventory of the characteristics of leaders, to compare them with their followers to measure the influence the leaders had on the followers and interpret these results in terms of educational procedures.

The groups studied in this thesis were 143 boys, ranging in age from 12 to 17, who were enrolled in a summer camp and 226 boys in six different Boy Scout troops. An inventory was made of the characteristics of the leaders from these groups of boys. The leaders that were studied demonstrated all-around superiority in all areas. They excelled in intelligence, athletic ability, scout rank, scout tenure, and physical size. It was also demonstrated that leaders are easily distinguished from the

non-leaders by other boys who had not been in contact with them before. The leaders stood out in many ways and there was evidence that a leader could even be identified by the sound of his voice. Groups will also vary a great deal in the standards they establish for their leaders, and the longer a group has been together the more likely that intelligent individuals, as a result of social interaction, will move into a position of greater influence.

As part of the summary of this study, Partridge has developed an interpretation in terms of educational implications. He introduces this interpretation by stating:

That individuals do differ with respect to the amount of influence they have on their fellows can hardly be denied. It has been demonstrated in many different studies that certain people are continually placed in positions of responsibility; that they are able to instill a feeling of confidence in others; that they are able to influence their fellows to certain definite forms of action, are all evidence that this ability which we have called "leadership," exists in quantities varying from one individual to another. The fact that leadership ability does exist in varying quantities, whether it be innate or acquired, increases the responsibility of education to see that proper guidance and opportunity is given those individuals who will later influence the behavior of others. The nature of society is such that skilled leadership is needed in many fields. Either the electorate must be trained in the wise selection of leaders or some different method of selection must be devised if there is to be social progress.

Partridge also came to the conclusion that outstanding leaders were more poised and had something in their outward appearance that allowed them to move into a position of influence in their group and even in completely strange groups. The study points out unquestionably that the leader

establishes the group direction much more than anyone in the follower category. In reference to this he discusses the fact that outstanding leaders can greatly influence a group even though they have had little or no previous contact with a particular group: consequently, he stresses the importance of thoroughly understanding the development and training of leaders. He states, "There is little doubt that the level of behavior of an entire group can be raised if the recognized leader can be induced to lend his efforts toward that end." (35, p. 95)

Another interesting aspect of this study was the author's comments dealing with the variety of standards of excellence that groups demand of their leaders. There appear to be many reasons for this variation in attitude, but he did discover that in unsupervised groups individuals with higher intelligence and the ability to attract the attention of the group members were able to guide the group in any direction they desired. Unfortunately, students too often are not as concerned about the character of the chosen leader or the direction that this leader takes them as long as in their eyes he is a real and respected leader. In the study of these groups, he was impressed at times with the ease that groups would follow a mischievous leader into negative situations.

Partridge also found that when a group has been in existence for a period of time and is reaching toward maturity, the members of the group become more selective in

determining whom their leaders are going to be. Consequently, if the educational system is going to be effective, it must provide the opportunity for intelligent leaders to experience many group situations.

The theory is that if the intelligent individual increases his leadership experience and is given some instruction and direction, he may develop those skills necessary to his becoming a positive influence upon his peers. Patridge feels this is a social problem and comments:

Those individuals who have real intellectual capacity should be given an opportunity to develop the social side of their nature so that they will have a greater chance of being selected by popular vote. Those who exercise their franchise of voting should have some very definite training in the selection of leaders.  
(page 97)

Hollander (18) in his book concerning leaders and groups offers the view that leadership is one aspect of a broader influence process which affects conformity, attitude change, and interpersonal attraction. He feels that leadership is a phenomenon of classic concern. It should be considered from all angles. It has many ramifications relevant to group process, including conformity, morale, and social change.

#### Summary

Leadership is an intangible trait that has been extensively studied, and many significant findings and theories

have been established through research. Results of these investigations are not entirely clear, and many of the recognized theories conflict. It becomes obvious that many aspects of leadership and group dynamics are extremely complex. Although there has been a great deal of work done in the general area of leadership and group dynamics, there has been little research in the specific area of student leadership on the elementary level.

The trait-theory approach to leadership was one of the earlier theories that received considerable attention. This theory has been thoroughly developed and much can be learned from the resulting research. The basic idea underlying this approach is that identified leaders have recognizable traits which directly contributed to their establishment as a leader. The personality-trait approach theorists have also used this approach to identify potential leaders when they are known to possess a number of these listed personality characteristics. This theory also holds that individuals within a group have particular personality traits, and these traits increase their chances of becoming accepted leaders. They will also need additional skills to be effective in helping the group reach its selected goals, but the fact that leaders have certain personality traits will help them acquire and maintain a leadership position. Although this theory has contributed considerably to the knowledge we have of leadership, it has not maintained its original popularity. The present trend in

leadership theory is more closely related to the role that is played by the individual, the nature of the group, and the goals that have been directly or indirectly established by the group. There can be many intricate variables that have an effect upon the phenomenon we call leadership, and it would be unusual for any one variable to dominate its development.

The group objective is in all probability one of the most important factors in the selection of leaders. The selection of leaders is usually relative to the situation in the sense that particular group goals are established and certain social circumstances play a part in the determination of who will assume the leadership role. Leadership development becomes important to the group when a specific goal is determined and the achievement of this goal is essential to the group. Certain individuals will obtain the leadership role because they are able to contribute more and add to the probability of the group goal being successfully achieved. Leadership, then, is related to an area of interest, and directed toward a goal that is recognized and judged important by the leader and the group. Individuals are often motivated to seek leadership positions by their desire for self-enhancement and power, but if the leader is unable to meet the needs of the group or if his own personal goals become more important, his leadership position will in all probability rapidly disintegrate.



Recent research in the area of leadership selection suggests that the task at hand is the most important single factor to consider. Those assuming the leadership role should be open and flexible enough to adjust to a wide variety of situations. Any formal and permanent arrangements that will not allow for this flexibility can be detrimental. The leadership position may be a temporary assignment and rotated among the group membership in relation to the task at hand, or a leader may have the insight to recognize the changing group goals and adjust his behavior to meet these changes, thereby maintaining his leadership role. The individual will acquire a leadership role within the group when a thorough understanding of the group goal is demonstrated, and when he is able to benefit the group in many other critical areas of concern.

Leadership function is another area that has been given considerable attention with conflicting results. A major disagreement develops among researchers when the extent of leadership influence is considered. The problem arises as to whether leadership ability is a quality that certain individuals have and is a separate entity in itself or whether it is merely a situation that will vary in relationship to the development of a particular group of circumstances. The basic idea of this latter concept is that the leadership function may be assumed by a variety of people in many different ways. Consequently,

any member of the group may be a leader at any particular time if his actions serve the group goal.

## CHAPTER III

### METHOD AND PROCEDURE

The object of this chapter is (1) to present a general introduction of the dissertation, (2) to describe the subjects and the environments in which the selected schools are located, and (3) to discuss the instruments used in the study.

#### Introduction

The primary goal of this study is to determine if there are significant differences in intelligence, school achievement, self-concept, and school attitude between the student leaders from a "high" socio-economic environment and the student leaders from a "low" socio-economic environment. The students that are identified as leaders have been selected by their peers and teachers. Students that could be classified as followers in the same group have also been studied, and an analysis has been made of the differences between the leaders and followers of the same socio-economic group.

In order to conduct a study of student leadership on the elementary school level in contrasting socio-economic environments, it is necessary to follow certain specific

procedures. A method must be designed to identify the students that are to be classified as leaders by established standards and criteria. In making comparisons between the leaders and followers from the two contrasting settings on selected variables, suitable instruments must be used to discover possible differences. Appropriate statistical procedures must be utilized in order to determine whether any of the indicated differences were statistically significant.

### The Subjects and Their Environment

All twenty of the classrooms used in this study were located in the San Juan Unified School District, Sacramento County, California. This school district is one of the larger unified districts in the state, having an enrollment of over fifty thousand students in grades kindergarten through twelve. In this particular "bedroom suburbia," the areas closer to Sacramento City boundaries were the first to develop and are what one would consider the upper class section in this large suburb. The land area of this school district covers approximately one hundred square miles. The area which in this study was classified as the high socio-economic setting is located about five miles outside of the Sacramento City boundaries along and near the banks of the American River.

It is an area of large estate dwellings, and a high percentage of these homes have servant quarters located on

their grounds or attached to the homes. Sociologically this area could probably be classified as a combination of the upper two classes of the five class system used by Hollingshead. (19, pp. 83-120) A few of the residences located on the extremities of this area are less expensive but remain in the thirty thousand to forty thousand dollar evaluation bracket. The occupations of the people living in this area are in the professional category with a high concentration of people in the medical profession. Many of the highest ranked state government personnel live in this area. Other professions most often enumerated are lawyers, business executives, engineers, large company owners, bankers, and proprietors of other private business enterprises.

In contrast, the low socio-economic setting used in this study presents an entirely different environment. The elementary schools from the area used in the study were located in close proximity to the only intermediate center (7th and 8th grade) in this district to receive Title I funds from the Elementary and Secondary Education Act of 1965. Title I funds are allocated to school districts to give aid to the culturally, economically, and educationally handicapped child. President Johnson made the following remarks when he signed this bill, Public Law 89-10: "Today we reach out to 5-1/2 million children held behind their more fortunate schoolmates by the dragging anchor of poverty." (20) In a brief description of the

bill Harris and Hughes (17) comment:

Title I of the Elementary and Secondary Education Act of 1965 authorizes Federal support to local public education agencies for special education programs for educationally deprived children in attendance areas where low-income families are concentrated. Its aim is to help broaden and strengthen education for children of poverty, wherever they may be found -- in public schools, in private schools, or out of schools.

The selection of areas for the application of Title I funds is based upon welfare statistics, and the basic philosophy of the program is to place the money where the child is -- in other words, directly into the school where these children are located.

The Pasteur Intermediate School of the San Juan Unified School District was selected for Title I funds because it had the largest number of welfare recipients. In selecting this area for Title I monies, other factors were also taken into consideration: (1) there were more families with two thousand dollars or less annual income, (2) there were more homes in this area costing less than five thousand dollars, (3) there was a larger number of children on the free lunch program, (4) and there were more students that had scores in the lower quartile on standardized tests required by the California State Department of Education.

Pasteur School encompasses a rather large area, and there are eight elementary schools that act as "feeder" schools are this one center. The senior high school in this area, which is one of nine in the school district,

was also the only high school in the school district to receive Title I allocations. This high school has sixteen elementary schools located within its boundaries.

### The Subjects

The students included in this study were fifth and sixth grade boys and girls situated in the typical elementary school organization. All of the twenty classrooms used were normal in the sense that they were self-contained classrooms, with only one grade level in each classroom. A few of the classes in these schools were combination grade level classes containing more than one grade level, but classes of this type were not included in the study. The grade level distribution of these classes is illustrated in Table I.

### The Instruments

In this investigation it was necessary to identify and place the students of these self-contained classrooms into different categories such as leaders, followers, and isolates. The major objective was to determine which students could be classified as over-all leaders in each classroom. When one attempts to identify a leader or group of people that fall into such a general classification, the question arises as to what he leads; is it a particular activity; is it for a brief or lengthy period of time; is it the group as a whole he is leading or just

TABLE I  
CLASSROOM DIVISION IN RELATION TO GRADE LEVEL,  
SOCIO-ECONOMIC SETTING AND SEX

<u>High Socio-Economic Setting</u>							
<u>Fifth Grade</u>				<u>Sixth Grade</u>			
	<u>Students in</u> <u>each class</u>	<u>Sex</u> <u>M F</u>			<u>Students in</u> <u>each class</u>	<u>Sex</u> <u>M F</u>	
Classroom 1	32	16	16	Classroom 6	30	15	15
Classroom 2	30	14	16	Classroom 7	29	15	14
Classroom 3	31	16	15	Classroom 8	28	14	14
Classroom 4	31	12	19	Classroom 9	28	12	16
Classroom 5	<u>29</u>	<u>10</u>	<u>19</u>	Classroom 10	<u>33</u>	<u>19</u>	<u>14</u>
Totals	153	68	85	Totals	148	75	73

Students in the High Socio-Economic Setting -- 301  
 Number of boys -- 143  
 Number of girls - 158

<u>Low Socio-Economic Setting</u>							
Classroom 1	30	16	14	Classroom 5	31	13	18
Classroom 2	30	15	15	Classroom 6	33	18	15
Classroom 3	31	16	15	Classroom 7	30	20	10
Classroom 4	33	13	20	Classroom 8	29	16	13
				Classroom 9	32	15	17
				Classroom 10	<u>30</u>	<u>16</u>	<u>14</u>
Totals	124	60	64	Totals	185	98	87

Students in the Low Socio-Economic Setting -- 309  
 Number of boys -- 158  
 Number of girls - 151

Students in combined Socio-Economic Settings -- 610  
 Girls in combined Socio-Economic Settings -- 309  
 Boys in combined Socio-Economic Settings -- 301



a few individuals; is it democratic or autocratic leadership; is he really a leader? The sociometric instrument designed for this study attempts to identify those students that are likely to be in leadership positions in a majority of the school activities. The method of peer selection used, in association with the teacher selection process, should identify the student leaders. There will obviously be situations and activities in which the student that is identified as a follower or possibly even an identified "isolate" will assume some degree of leadership. There will be times during the school year where the experienced, alert teacher will be able to, with the use of sound educational techniques, urge, push, and manipulate students into leadership roles who normally would not have had the incentive to make such a move on their own initiative.

The sociometric instrument and teacher rating form used in this study were devised to identify an over-all pattern of leadership qualities. By using a combination of teacher ratings and student selections, individual students were selected as leaders. The teacher in each of the twenty classrooms ranked the five students he felt were most influential in his classroom. The teacher was asked to select students whom he felt the majority in his class tended to look up to and use as models. The teachers identified students who in their opinion influenced the other students most of the time in a majority of the classroom and other school activities. These were

the students the teachers felt had been the overall leaders throughout the year.

The sociometric instrument used combined forced selection questions of a "socio" and "psyche" nature as described by Wartens. (40, p. 94) Each student was given a small half-sheet booklet of five pages. The cover page consisted of a series of information-seeking blanks such as (1) name, (2) age, (3) date of test, (4) school, (5) grade, (6) teacher's name, (7) sex, (8) father's occupation, and (9) mother's occupation.

Each teacher was given written directions regarding the presentation of the sociometric instrument to the students. The teachers were asked to convey the idea to the students that the task at hand was important and that a serious frame of mind and sincere attitude would be appreciated. The teachers also explained to the students that the project was sponsored by the school district and was part of a research study in which the school district and their school was very much interested. The teachers were asked to see that the students make their choices privately and were asked to inform the students that the results would be confidential. Each student was given a complete class list and each student was numbered. Interviews with many of the teachers after the tests were given indicated that a proper atmosphere was maintained and the students and teachers enjoyed the project. Many of the

teachers requested and were given the tabulated sociometric results.

The first of the four sociometric questions presented to the students dealt with a problem situation in which the class would theoretically send five students (boys or girls) to discuss a problem with their school principal. Each student selected five students. The second question related to a social situation in which each student was to select four fellow students, two boys and two girls, from their class to accompany them to a birthday party. The third question was of a basically political nature. The students were asked to nominate four students to run for class offices in an election to be held the following week. The final question was concerned with an emergency situation in which the student would select a classmate to come to his aid. After the results were collected from each classroom, a tally sheet was developed that illustrated the total votes each student received and their rank in class based upon these votes. Each vote (or tally) was given equal weight. Self choices were not included in the tabulation. Those students that ranked in the top five in each class, as a result of the large number of votes received on the sociometric scale, were used in the study as leaders. Over sixty-five per cent of these students were also identified by their teachers as a leader, but teacher selection was not a required variable. A few students that were ranked in the sixth or seventh position

in the classrooms as a result of the sociometric tabulation but received teacher support were also identified as leaders. Several of the students identified as leaders were not used in the study for various reasons (moved away, illness, or incomplete test data).

The students that were identified as followers in each classroom received a minimum of sociometric recognition from their peers and were not named as leaders by their teachers. They received only a few votes from their classmates which positioned them near the bottom of the sociometric ranking. Consequently, there was a wide vote differential between the identified leaders and those who were chosen as followers. Students receiving no votes (isolates) were not included in the study. The followers are generally inactive in the classroom interaction and let other students make the decisions and do the leading in the daily school activities. The followers tend to emulate those they have chosen as leaders.

Tables II and III will illustrate the grade level distributions in relation to the socio-economic setting of the classrooms, the ratio of boys to girls, and total figures in terms of number of students identified.

It is obvious that a group of students in a classroom is more than just an aggregation of individuals. Such a group has form and structure; there are organizations of subgroups, friendships, and cliques. In all classroom groups some of the students are more

TABLE II  
CLASSROOM DISTRIBUTION AND TOTAL NUMBERS OF  
LEADERS AND FOLLOWERS IN RELATIONSHIP TO  
HIGH SOCIO-ECONOMIC SETTING  
GRADE LEVEL AND SEX

<u>High Socio-Economic Setting</u>					
<u>Leaders</u>			<u>Followers</u>		
<u>Fifth Grade</u>	<u>Sex</u>		<u>Fifth Grade</u>	<u>Sex</u>	
	<u>M</u>	<u>F</u>		<u>M</u>	<u>F</u>
Classroom 1	2	3	Classroom 1	3	2
Classroom 2	2	3	Classroom 2	2	3
Classroom 3	2	3	Classroom 3	4	1
Classroom 4	2	3	Classroom 4	4	1
Classroom 5	<u>2</u>	<u>3</u>	Classroom 5	<u>2</u>	<u>3</u>
Totals	10	15		15	10
<u>Sixth Grade</u>			<u>Sixth Grade</u>		
	<u>M</u>	<u>F</u>		<u>M</u>	<u>F</u>
Classroom 6	2	3	Classroom 6	3	2
Classroom 7	2	3	Classroom 7	2	3
Classroom 8	2	3	Classroom 8	3	2
Classroom 9	3	2	Classroom 9	4	1
Classroom 10	<u>3</u>	<u>2</u>	Classroom 10	<u>3</u>	<u>2</u>
Totals	12	13		15	10

Total number of student leaders -- 50 (22 boys and 28 girls)

Total number of student followers -- 50 (30 boys and 20 girls)

Total number of student leaders and followers -- 100 (52 boys and 48 girls)

TABLE III  
CLASSROOM DISTRIBUTION AND TOTAL NUMBERS OF  
LEADERS AND FOLLOWERS IN RELATIONSHIP TO  
LOW SOCIO-ECONOMIC SETTING  
GRADE LEVEL AND SEX

<u>Low Socio-Economic Setting</u>					
<u>Leaders</u>			<u>Followers</u>		
<u>Fifth Grade</u>	Sex		<u>Fifth Grade</u>	Sex	
	M	F		M	F
Classroom 1	2	1	Classroom 1	3	2
Classroom 2	3	2	Classroom 2	3	2
Classroom 3	3	2	Classroom 3	2	3
Classroom 4	<u>1</u>	<u>5</u>	Classroom 4	<u>2</u>	<u>3</u>
Totals	9	10		10	10
 <u>Sixth Grade</u>			 <u>Sixth Grade</u>		
Classroom 5	3	2	Classroom 5	3	2
Classroom 6	3	3	Classroom 6	2	3
Classroom 7	3	2	Classroom 7	3	2
Classroom 8	3	2	Classroom 8	3	2
Classroom 9	2	2	Classroom 9	2	3
Classroom 10	<u>3</u>	<u>3</u>	Classroom 10	<u>4</u>	<u>1</u>
Totals	17	14		17	13

Total number of student leaders -- 50 (26 boys and 24 girls)

Total number of student followers -- 50 (27 boys and 23 girls)

Total number of student leaders and followers -- 100  
(53 boys and 47 girls)

readily accepted by the group than others, and some of the students are easily rejected. All of these factors are important in determining how the group will react to learning situations and other classroom activities organized by the teacher. This writer feels that it is extremely important for the teacher to be aware of the psychological composition of his class and the interrelations of the individuals therein.

Moreno (32, p. 10) has defined sociometry as the mathematical study of psychological properties of population groups. Sociometry uses results obtained by using quantitative methods and experimental techniques. Studies using such techniques usually include the development and organization of groups and the position of individuals within them. Although teachers are often aware to some degree of the social relationships within their classrooms, a sociometric method will often serve to verify and supplement impressions they might have about the interpersonal relationships within the class. It should be recognized the sociometric devices are not a panacea for all educational ills or discipline problems that the teacher may be encountering in the classroom, but many times it will alert the teacher to situations that were not previously evident and point to opportunities for further study.

In relationship to this identification of leaders in a classroom setting it is often possible for the classroom teacher to discover that there are students in his room

who are recognized as leaders by their friends but who had never really impressed him as possessing any qualities of leadership at all. Most educators have observed students whom they knew had real leadership talent being by-passed by other students in favor of an individual the adults felt had little ability at all. That their adult observations were possibly correct does not really matter; the students had their own reasons for their choices, and educators would probably be better off trying to understand student's reasons rather than combating them. (5)

The California Short Form Test of Mental Maturity (CTMM) was the instrument selected to compare the intelligence of the students in the different socio-economic setting. The manual (30) for the CTMM gives the following description of this test:

Like the parent instrument, the Short-Form provides information about the functional capacities that are basic to learning, problem solving, and responding to new situations. Seven administrative test units, measuring aspects of mental ability, contribute to a pattern of summary and derived scores that are interpreted within a framework of inter- and intra-individual differences.

Review of this test, particularly the 1957 edition, indicate the test is regarded favorably in its field, but it does suffer from a few of the same limitations as other similar tests. Cyril Burt (5) in his review of this test in Buros' Fifth Mental Measurements Yearbook (4, pp. 313-14) comments:



In the original form, the conceptual framework for the California Test of Mental Maturity was that of the Stanford-Binet scale. The fuller version has been in use for twenty years. The experience and the mass of data thus accumulated have been freely utilized in progressively improving the shortened series. The outcome is one of the best sets of group tests at present available.

The sixth grade students in this study used the 1963 S-Form test. Since the 1963 form represents a complete revision of the 1957 edition and the norms of the two forms are significantly different, sixth graders will be compared only with other sixth graders, and fifth graders with other fifth graders. These tests offer three different scores (1) Language, (2) Non-Language and (3) Total Intelligence Score. Comparisons were made on all three of these variables in stanine form.

The California Achievement Tests Complete Battery (CAT), elementary Form W 1957 edition, was taken by all students in the study. Nine scores (stanine form) from three different scholastic areas were obtained. The three total scores compared in the study are: (1) Reading (sub-scores are reading vocabulary and reading comprehension), (2) Language (sub-scores are mechanics of English and spelling) and (3) Arithmetic (sub-scores are arithmetic reasoning and arithmetic fundamentals). Stanine scores are used in these statistical comparisons. Reviews of this test are also quite favorable, but Robert D. North (34, pp. 3-4) criticizes the tests for not being more intensive and extensive; to be more effective the test should cover more areas of study. He also felt that

"modern math" is not taken into consideration and no coverage of this new development is included. In Buros' Fifth Mental Measurements Yearbook, Charles Neidt (33, p. 3) states:

The thoroughness with which the authors report empirical evidence regarding the construction of the test is noteworthy. Reliability coefficients are uniformly high for the various levels and the item discrimination data are indicative of the efficient functioning of nearly all items. Coefficient of correlation between scores on the new edition and other standardized achievement test scores reflect a high degree of construct validity.

A self-concept scale (from the Wisconsin Teacher Education Research Project: Design and Instrumentation) of nine items was used which presents a general picture of the way a student feels about himself. A total score was used, with 36 as the highest score possible and 9 as the lowest score possible. Each question had four possible choices and each selection was weighted on a 1 to 4 scale.

A school attitude scale (also from the Wisconsin Teacher Education Research Project) of twelve items was administered, with a highest possible score of 48 and a lowest possible score of 12. Each question is weighted on a 1 to 4 scale. Higher scores on both of these scales represent a more socially acceptable position.

As each portion of the data was obtained and tabulated it was tested statistically to determine its

relationship to the pertinent hypotheses as stated. The statistical procedures employed are explained in Chapter IV.

## CHAPTER IV

### ANALYSIS OF FINDINGS

#### Introduction

The primary purpose of this chapter is to present the results of the statistical analyses of the data and to interpret these results. The .05 level of probability is used to determine the significance of all statistical tests. There are other tests that could possibly have been used in this study to obtain the desired comparisons, but the advantages of the chi-square test appear to make it acceptable for the objectives of this study.

The hypotheses were tested and are presented again in the order in which they were listed in Chapter I. The results are summarized at the end of this chapter.

#### Testing of Hypotheses

Hypothesis 1: There will be no significant difference in intelligence as measured by the language, non-language, and total sub-scores of the California Short-Form Test of Mental Maturity on the fifth grade level between:

- A. Leaders from a high socio-economic setting and  
leaders from a low socio-economic setting.
- B. Followers from a high socio-economic setting and  
followers from a low socio-economic setting.
- C. Leaders from a high socio-economic setting and  
followers from a high socio-economic setting.
- D. Leaders from a low socio-economic setting and  
followers from a low socio-economic setting.
- E. Followers from a high socio-economic setting  
and leaders from a low socio-economic setting.
- F. Leaders from a high socio-economic setting and  
followers from a low socio-economic setting.

Chi-square tests were made in order to test this hypothesis. On all of the chi-square tests in this study, a continuity correction, as suggested by Siegel (38, p. 107), was used to obtain more meaningful results. The analyses of the results of this hypothesis are presented in Tables IV, V, and VI.

In Table IV, which pertains to the CTMM language sub-test score, the calculated chi-square values exceed the tabled chi-square value of 3.84, associated with a probability of .05, in two out of the six comparisons. This result indicates that significant differences did exist in these two groups; therefore, in two of the six groups the null hypothesis was rejected.

In Table V, which relates to the CTMM non-language sub-test score, we find that the calculated chi-square

TABLE IV  
COMPARISONS BETWEEN PAIRS OF GROUPS ON THE LANGUAGE  
SCORE OF THE CALIFORNIA SHORT-FORM TEST  
OF MENTAL MATURITY  
(FIFTH GRADE)

HYPOTHESIS 1

Student Groups	Chi- square <sup>a</sup>	Probability <sup>b</sup>	Highest Scores
A. High Leaders vs Low Leaders	1.09	n.s.	
B. High Followers vs Low Followers	1.01	n.s.	
C. High Leaders vs High Followers	9.69	p. < .01	High Leaders
D. Low Leaders vs Low Followers	.71	n.s.	
E. High Followers vs Low Leaders	.06	n.s.	
F. High Leaders vs Low Followers	11.79	p. < .01	High Leaders

<sup>a</sup>Degrees of freedom = 1

<sup>b</sup>Tabled values associated with .05 = 3.84; .01 = 66.4;  
.001 = 10.83.

TABLE V

COMPARISONS BETWEEN PAIRS OF GROUPS ON THE NON-LANGUAGE  
SCORE OF THE CALIFORNIA SHORT-FORM TEST  
OF MENTAL MATURITY  
(FIFTH GRADE)

HYPOTHESIS 1

Student	Chi-square <sup>a</sup>	Probability <sup>b</sup>	Highest Scores
A. High Leaders vs Low Leaders	6.96	$p. < .01$	High Leaders
B. High Followers vs Low Followers	5.12	$p. < .01$	High Followers
C. High Leaders vs High Followers	2.17	n.s.	
D. Low Leaders vs Low Followers	.01	n.s.	
E. High Followers vs Low Leaders	1.09	n.s.	
F. High Leaders vs Low Followers	14.19	$p. < .001$	High Leaders

<sup>a</sup>Degrees of freedom = 1

<sup>b</sup>Tabled values associated with .05 = 3.84; .01 = 66.4;  
.001 = 10.83.

values showed significant differences in three of the six comparisons. The high leaders compared to the low followers is significant here at a high level of probability, as it is in all phases of this study.

The total sub-score of the CTMM represents a derived combination of the two previous sub-scores (language, and non-language). In Table VI, four of the comparisons exceed the tabled chi-square value associated with a probability of .05. On the three variables of the CTMM, which were used in the comparisons, (language, non-language, and total) similar patterns developed, but there were several exceptions.

Hypothesis 2: There will be no significant difference in intelligence as measured by the language, non-language, and total sub-scores of the California Short-Form Test of Mental Maturity on the sixth grade level between:

- A. Leaders from a high socio-economic setting and leaders from a low socio-economic setting.
- B. Followers from a high socio-economic setting and followers from a low socio-economic setting.
- C. Leaders from a high socio-economic setting and followers from a high socio-economic setting.
- D. Leaders from a low socio-economic setting and followers from a low socio-economic setting.
- E. Followers from a high socio-economic setting and leaders from a low socio-economic setting.



TABLE VI  
COMPARISONS BETWEEN PAIRS OF GROUPS ON THE TOTAL  
SCORE OF THE CALIFORNIA SHORT-FORM TEST  
OF MENTAL MATURITY  
(FIFTH GRADE)

HYPOTHESIS I

Student Groups	Chi- square <sup>a</sup>	Probability <sup>b</sup>	Highest Scores
A. High Leaders vs Low Leaders	5.51	p. < .05	High Leaders
B. High Followers vs Low Followers	3.86	p. < .05	High Followers
C. High Leaders vs High Followers	10.08	p. < .01	High Leaders
D. Low Leaders vs Low Followers	2.05	n.s.	
E. High Followers vs Low Leaders	.008	n.s.	
F. High Leaders vs	18.57	p. < .001	High Leaders

<sup>a</sup>Degrees of freedom = 1

<sup>b</sup>Tabled values associated with .05 = 3.84; .01 = 66.4;  
.001 = 10.83.

F. Leaders from a high socio-economic setting and followers from a low socio-economic setting.

The analysis of the results of this hypothesis are presented in Tables VII, VIII, and IX. The result of this comparison, which is identical to the organization of the fifth grade comparisons, is quite similar, but there are a few exceptions.

In Table VII, which presents the language sub-score of the CTMM on the sixth grade level, the calculated chi-squares exceed the tabled chi-square values at the .05 level of probability in three of the six comparisons. In these three comparisons the null hypothesis is rejected.

The comparisons of the groups on the non-language sub-scores at the sixth grade level also show three chi-square values that are at least significant at the .05 level of probability. The high leaders vs. high followers and the high followers vs. low followers grouping differed from the language sub-scores of the identical groups illustrated in Table VII. Table VIII gives the non-language comparisons.

Table IX offers the total intelligence results of the CTMM on the sixth grade level. The null hypothesis was rejected in four of the six comparisons. The group comparisons that were found significant on the sixth grade total scores were identical to those that were significant for the fifth grade level.

TABLE VII

COMPARISONS BETWEEN PAIRS OF GROUPS ON THE LANGUAGE  
SCORE OF THE CALIFORNIA SHORT-FORM TEST  
OF MENTAL MATURITY  
(SIXTH GRADE)

HYPOTHESIS II

Student Groups	Chi- square <sup>a</sup>	Probability <sup>b</sup>	Highest Scores
A. High Leaders vs Low Leaders	12.42	p. < .001	High Leaders
B. High Followers vs Low Followers	13.45	p. < .001	High Followers
C. High Leaders vs High Followers	1.13	n.s.	
D. Low Leaders vs Low Followers	1.31	n.s.	
E. High Followers vs Low Leaders	2.17	n.s.	
F. High Leaders vs	19.58	p. < .001	High Leaders

<sup>a</sup>Degrees of freedom = 1

<sup>b</sup>Tabled values associated with .05 = 3.84; .01 = 66.4;  
.001 = 10.83

TABLE VIII

COMPARISONS BETWEEN PAIRS OF GROUPS ON THE NON-LANGUAGE  
SCORE OF THE CALIFORNIA SHORT-FORM TEST  
OF MENTAL MATURITY  
(SIXTH GRADE)

HYPOTHESIS II

Student Groups	Chi- square <sup>a</sup>	Probability <sup>a</sup>	Highest Scores
A. High Leaders vs Low Leaders	6.95	p. < .01	High Leaders
B. High Followers vs Low Followers	2.90	n.s.	
C. High Leaders vs High Followers	6.49	p. < .05	High Leaders
D. Low Leaders vs Low Followers	.04	n.s.	
E. High Followers vs Low Leaders	1.12	n.s.	
F. High Leaders vs Low Followers	17.18	p. < .001	High Leaders

<sup>a</sup>Degrees of freedom = 1

<sup>b</sup>Tabled values associated with .05 = 3.84; .01 = 66.4;  
.001 = 10.83

TABLE IX

COMPARISONS BETWEEN PAIRS OF GROUPS ON THE TOTAL  
SCORE OF THE CALIFORNIA SHORT-FORM TEST  
OF MENTAL MATURITY  
(SIXTH GRADE)

HYPOTHESIS II

Student Groups	Chi- square <sup>a</sup>	Probability <sup>a</sup>	Highest Scores
A. High Leaders vs Low Leaders	18.49	p. < .001	High Leaders
B. High Followers vs Low Followers	6.28	p. < .05	High Followers
C. High Leaders vs High Followers	11.82	p. < .001	High Leaders
D. Low Leaders vs Low Followers	.79	n.s.	
E. High Followers vs Low Leaders	2.60	n.s.	
F. High Leaders vs Low Followers	18.28	p. < .001	High Leaders

<sup>a</sup>Degrees of freedom = 1

<sup>b</sup>Tabled values associated with .05 = 3.84; .01 = 66.4;  
.001 = 10.83.

Hypothesis III: There will be no significant difference in scholastic achievement as measured by the language, reading, and arithmetic sub-scores on the California Achievement Test between:

- A. Leaders from a high socio-economic setting and leaders from a low socio-economic setting.
- B. Followers from a high socio-economic setting and followers from a low socio-economic setting.
- C. Leaders from a high socio-economic setting and followers from a high socio-economic setting.
- D. Leaders from a low socio-economic setting and followers from a low socio-economic setting.
- E. Followers from a high socio-economic setting and leaders from a low socio-economic setting.
- F. Leaders from a high socio-economic setting and followers from a low socio-economic setting.

Chi-square tests were also made to test this hypothesis, and the continuity correction was implemented. The analysis of the results from the three scholastic achievement areas are given in Tables X, XI, and XII

In Table X, which presents the results of the language segment of the California Achievement Test, the calculated chi-square values exceeded the tabled .05 level of probability in five of the six comparisons. Consequently, in five of the comparisons the null hypothesis was rejected.

TABLE X

COMPARISONS BETWEEN PAIRS OF GROUPS ON THE LANGUAGE  
SCORE OF THE CALIFORNIA ACHIEVEMENT TEST

HYPOTHESIS III

Student Groups	Chi- square <sup>a</sup>	Probability <sup>b</sup>	Highest Scores
A. High Leaders vs Low Leaders	18.10	$p. < .001$	High Leaders
B. High Followers vs Low Followers	17.75	$p. < .001$	High Followers
C. High Leaders vs High Followers	20.008	$p. < .001$	High Leaders
D. Low Leaders vs Low Followers	4.01	$p. < .05$	Low Leaders
E. High Followers vs Low Leaders	2.61	n.s.	
F. High Leaders vs Low Followers	52.02	$p. < .001$	High Leaders

<sup>a</sup>Degrees of freedom = 1

<sup>b</sup>Tabled values associated with .05 = 3.84; .01 = 66.4;  
.001 = 10.83.

TABLE XI

COMPARISONS BETWEEN PAIRS OF GROUPS ON THE READING  
SCORE OF THE CALIFORNIA ACHIEVEMENT TEST

HYPOTHESIS III

Student Groups	Chi- square <sup>a</sup>	Probability <sup>b</sup>	Highest Scores
A. High Leaders vs Low Leaders	13.006	$p. < .001$	High Leaders
B. High Followers vs Low Followers	8.10	$p. < .01$	High Followers
C. High Leaders vs High Followers	10.34	$p. < .01$	High Leaders
D. Low Leaders vs Low Followers	1.44	n.s.	
E. High Followers vs Low Leaders	3.24	n.s.	
F. High Leaders vs Low Followers	33.64	$p. < .001$	High Leaders

<sup>a</sup>Degrees of freedom = 1

<sup>b</sup>Tabled values associated with .05 = 3.84; .01 = 66.4;  
.001 = 10.83.



Table XI, which compares these groups in the area of reading achievement, shows results that are very similar to the language comparisons. Four of the groups reject the null hypothesis, but the low leaders vs. low followers category supports the null hypothesis, thereby differing from the identical group on the language variable.

Comparisons between the pairs of groups on the arithmetic sub-score of the California Achievement Test are significant at the .05 level of probability in five of the six comparisons. The grouping which supports the null hypothesis, low leaders vs. low followers, does show a significant difference at the tabled chi-square value 2.71, associated with a probability of .10.

The comparisons between the leader and followers in the contrasting socio-economic setting are offered in Table XII.

Hypothesis IV: There will be no significant difference in the measured self-concept between:

- A. Leaders from a high socio-economic setting  
and leaders from a low socio-economic setting.
- B. Followers from a high socio-economic setting and  
followers from a low socio-economic setting.
- C. Leaders from a high socio-economic setting and  
followers from a high socio-economic setting.
- D. Leaders from a low socio-economic setting and  
followers from a low socio-economic setting.

TABLE XII

COMPARISONS BETWEEN PAIRS OF GROUPS ON THE ARITHMETIC  
SCORE OF THE CALIFORNIA ACHIEVEMENT TEST

HYPOTHESIS III

Student Groups	Chi- square <sup>a</sup>	Probability <sup>b</sup>	Highest Scores
A. High Leaders vs Low Leaders	27.31	p. < .001	High Leaders
B. High Followers vs Low Followers	10.34	p. < .01	High Followers
C. High Leaders vs High Followers	23.12	p. < .001	High Leaders
D. Low Leaders vs Low Followers	2.74	n.s.	
E. High Followers vs Low Leaders	6.77	p. < .01	High Followers
F. High Leaders vs Low Followers	37.20	p. < .001	High Leaders

<sup>a</sup>Degrees of freedom = 1

<sup>b</sup>Tabled values associated with .05 = 3.84; .01 = 66.4;  
.001 = 10.83.

- E. Followers from a high socio-economic setting and leaders from a low socio-economic setting.
- F. Leaders from a high socio-economic setting and followers from a low socio-economic setting.

The analysis of the results from the chi-square tests used in these comparisons are given in Table XIII. In this comparison we find that the calculated chi-square ratio between the high leaders and low leaders supports the null hypothesis for the second time in the study. We also note that the calculated chi-square value of 9.01, although significant at the .01 level of probability in the comparison between high leaders and low followers, was considerably smaller than most of the other chi-square values in this category in the study. The null hypothesis was rejected in four of the six comparisons.

Hypothesis V: There will be no significant difference in the measured attitudes toward school between:

- A. Leaders from a high socio-economic setting and leaders from a low socio-economic setting.
- B. Followers from a high socio-economic setting and followers from a low socio-economic setting.
- C. Leaders from a high socio-economic setting and followers from a high socio-economic setting.
- D. Leaders from a low socio-economic setting and followers from a low socio-economic setting.
- E. Followers from a high socio-economic setting and leaders from a low socio-economic setting.

F. Leaders from a high socio-economic setting and followers from a low socio-economic setting.

Table XIV, which compares the groups of students on the school attitude variable, is considerably different from the other comparisons. The high leaders vs. low leaders and the high leaders vs. low followers categories follow the usual pattern, but all of the other comparisons support the null hypothesis and are not significant at the tabled chi-square value which is associated with a probability of .05.

The mean score comparisons of the CTMM on the fifth grade level show a rather wide spread between the high leaders and the remaining three groups of students. The high leaders are near the middle of the seventh stanine in the test comparisons whereas, the other groups are nearly all in the fourth and fifth stanines. The mean scores of the high followers and the low leaders are quite similar, with the exception of the non-language variable in which the high followers are nearly a full stanine higher than the low leaders. The low follower mean scores offer some variation in that the non-language mean is in the fifth stanine, and the language and total test means falls within the fourth stanine.

The sixth grade CTMM mean scores present a pattern similar to that of the fifth grade, but in all tests the scores were higher. This in itself is not too meaningful because these tests were normed on different populations.

TABLE XIII  
COMPARISONS BETWEEN PAIRS OF GROUPS  
ON A SELF-CONCEPT SCALE

HYPOTHESIS IV

Student Groups	Chi-square <sup>a</sup>	Probability <sup>b</sup>	Highest Scores
A. High Leaders vs Low Leaders	.00	n.s.	
B. High Followers vs Low Followers	.00	n.s.	
C. High Leaders vs High Followers	10.24	$p < .01$	High Leaders
D. Low Leaders vs Low Followers	5.76	$p < .05$	Low Leaders
E. High Followers vs Low Leaders	6.77	$p < .01$	Low Leaders
F. High Leaders vs Low Followers	9.01	$p < .01$	High Leaders

<sup>a</sup>Degrees of freedom = 1

<sup>b</sup>Tabled values associated with .05 = 3.84; .01 = 66.4;  
.001 = 10.83.

TABLE XIV  
COMPARISONS BETWEEN PAIRS OF GROUPS  
ON A SCHOOL ATTITUDE SCALE

HYPOTHESIS V

Student Groups	Chi- square <sup>a</sup>	Probability <sup>b</sup>	Highest Scores
A. High Leaders vs Low Leaders	5.76	$p < .05$	High Leaders
B. High Followers vs Low Followers	.36	n.s.	
C. High Leaders vs High Followers	3.24	n.s.	
D. Low Leaders vs Low Followers	1.006	n.s.	
E. High Followers vs Low Leaders	.04	n.s.	
F. High Leaders vs Low Followers	10.27	$p < .01$	High Leaders

<sup>a</sup>Degrees of freedom = 1

<sup>b</sup>Tabled values associated with .05 = 3.84; .01 = 66.4;  
.001 = 10.83.

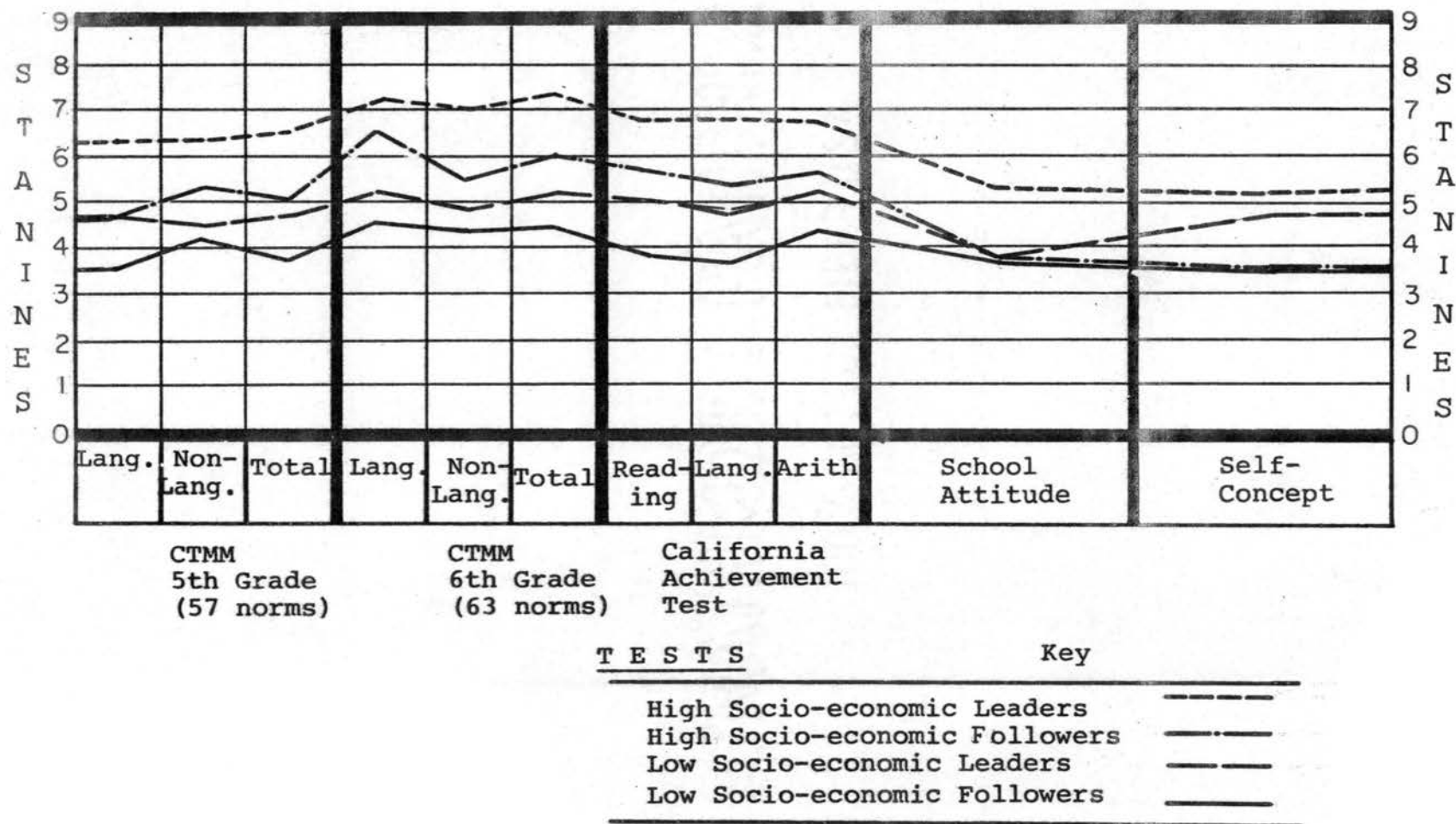


Figure 1. Mean Score Comparisons of the Four Groups of Students

It is noted there was little difference between the means of high leaders and the high followers on the language test. All of the high leader mean scores fell within the eighth stanine. This helped to create a wider mean score differential between the high leaders and the low leaders on the sixth grade level compared to the fifth grade level. The low followers mean scores are all in the fifth stanine and considerably closer to the mean scores of the low leaders.

The mean scores of the high leaders on the sub-tests of the CAT are approaching the eighth stanine and are at least one stanine higher than the closest mean score of another group. Although once again it was found that the mean scores of the high followers are higher on all sub-tests, the differential is insignificant. The low followers are again considerably lower than their counterpart leaders and the mean scores in reading and language are more than one stanine lower. A similar pattern evolved in the comparison of the high leaders and the high followers. The high leader mean scores show a minimal difference of one full stanine.

The raw scores from the School Attitude Scale and the Self-Concept Scale were converted into stanine scores based upon the scores of the two hundred students used in this study. On the School Attitude Scale the mean score of the high leaders is considerably higher than the



other student groups. The high followers, low leaders, and low followers are all closely grouped in the fourth stanine.

In the comparisons on the Self-Concept Scale, it was found that a group from the low socio-economic setting (low leaders) had a higher mean score than a group from the high socio-economic setting (high followers). This comparison appears to be significant in that the mean score differential is greater than one stanine. The follower groups from the contrasting environments have identical mean scores. It should also be pointed out that although the high leader score is higher than the low leader score the difference is slight.

#### Summary of Findings

The purpose of this section is to summarize the results of the statistical analyses carried out in relation to the stated hypotheses. Conclusions and recommendations are presented in the following chapter.

Analyses comparing the various groupings of student leaders and followers from the contrasting socio-economic settings in tested academic intelligence disclose the fact that significant differences existed in many of the variables. The intelligence variables used were language and non-language sub-tests, and their calculated total derived from the scores of the two previously mentioned sub-tests. Non-significant differences

between low leaders versus low followers and high followers versus low leaders were noted on the total variable on both the fifth and sixth grade levels. Hypotheses relative to the other four comparisons on this single variable, total intelligence, were rejected.

Analyses between all possible comparisons of fifth grade groups on the language sub-test variable present a pattern in which two of the six hypotheses were rejected. The language variable on the sixth grade level was nearly identical to the total intelligence comparisons with the exception of the high leaders versus high followers group. This hypothesis was not rejected.

Comparisons between fifth grade groups on the non-language sub-test resulted primarily in the same findings as the total intelligence variable. The one exception to this was the non-rejection of the hypothesis comparing high leaders and high followers. The hypotheses relating to the comparisons of the groups on the fifth grade non-language variable were identical to the sixth grade language variable were identical to the sixth grade language comparisons. Analyses comparing the sixth grade groups on the non-language variable indicate the hypotheses were rejected in three of the comparisons.

In comparing all the groups on the school achievement variable, significant differences did exist in a major portion of the comparisons. Comparisons made of all the student groups in reading, language and arithmetic

achievement show significant differences in at least four of the six comparisons in each academic area. In both the language and arithmetic areas of achievement the hypotheses were accepted in only one of the six group comparisons.

Comparisons between the groups on the reading achievement variable offer an identical pattern of significant findings to that of the total intelligence comparisons made on both the fifth and sixth grade levels. Four of the six hypotheses were rejected.

Hypotheses in five of the comparisons on the language achievement variable were rejected. The high followers versus low leaders comparison was not rejected.

Comparisons between the groups on the arithmetic achievement variable show rejection of five of the hypotheses with the low leaders versus low followers group the only hypothesis not rejected.

The analyses of the variable related to self-concept indicate some variation in findings as compared to the other independent variables. Hypotheses relative to this variable were rejected in four of the comparisons. A unique finding was offered when the hypothesis was not rejected in the comparison between the high leaders versus low leaders. Another interesting comparison with this variable shows a directional reverse in which a low socio-economic group had higher scores than the compared high socio-economic group. This group comparison was the high followers versus low leaders category.

Hypotheses relative to the comparisons of groups on the school attitude variable were not rejected in four of the six comparisons. Comparisons between the high leaders versus low leaders and the high leaders versus low followers remained consistent by rejecting the hypothesis. Analyses of the comparison between groups on this variable indicate the largest number of comparisons in which the hypotheses were not rejected.

## CHAPTER V

### SUMMARY, LIMITATIONS, AND CONCLUSIONS

#### Summary

The purpose of this dissertation was to report an investigation of differences of elementary school students living in contrasting socio-economic settings. Students of the fifth and sixth grade level from self-contained classrooms located in these different environments were identified as "leaders," "followers," and "isolates." The major emphasis of the study relates to the leader, follower classifications and does not include students that were recognized as isolates.

The 610 boys and girls from the twenty self-contained classrooms used in this study are all students from the San Juan Unified School District, which is located in a large unincorporated suburban area in Sacramento County, California. The classrooms chosen for the study were located in schools situated in widely contrasting socio-economic areas. The schools located in the "low" (economically depressed) socio-economic area are grouped relatively close to each other and are also located in close proximity to their "feeder school," the seventh and eighth grade

center of their area. This intermediate center, Pasteur School, was the only junior high school in the San Juan District to receive Title I funds from the Elementary and Secondary Act of 1965. The elementary schools used in the study representing the "high" socio-economic setting are located in an area that can best be described as "upper class" and has an occupational classification that would be considered "professional."

The research design for this study incorporates the identification of students as "leaders" and "followers" in the socio-economic environment in which they live. The students in the self-contained classrooms were placed in leader or follower classifications through the use of a combination of sociometric techniques and instructor selections. The students selected as leaders are, in reality, the students that act as leaders in a major portion of the classroom and school activities. Fifty students from each socio-economic setting were selected as leaders and fifty students from each of the two environments were selected as followers. The followers were also identified by sociometric techniques and received considerable lower sociometric rankings than their leader counterparts. The independent variables used in the comparisons of the group established were related to academic intelligence, scholastic achievement, self-concept, and school attitude.

Instruments utilized in collecting data were the California Short-Form Test of Mental Maturity, the California Achievement Test Battery, the Self-Concept Scale from the Wisconsin research project: Design and Instrumentation, and the School Attitude Scale, also from the Wisconsin study.

The non-parametric chi-square test of statistical significance was used throughout the study. Results of analyses indicated that many significant differences existed in the multiple comparisons made between the different groups of students from these contrasting socio-economic settings. In the areas of academic intelligence and scholastic achievement, the over-all trend was one of a rather similar pattern and relationship. With the exception of one comparison, all of which were considered significant at the .05 or greater level of probability, the groups of students from the high socio-economic area scored higher.

On the two variables, intelligence and achievement, non-significant differences were noted in all comparisons between the high followers versus low leaders group except in the area of arithmetic.

In the comparisons between the high leaders versus low leaders and the high followers versus low followers groups on these two variables, the results were significant in most of the comparisons. In three of the eighteen comparisons the results were non-significant.

Results of analyses pointed out that in the comparison of the high leaders versus low followers group there was a significant difference on all variables tested. The calculated chi-square ratios in this comparison were in most cases over the tabled value of 10.83 associated with the .001 level of probability. In the areas of intelligence and achievement, the high followers versus low followers and the high leaders versus high followers groups were the groups showing greatest variation in findings.

Analysis between the groups on the self-concept variable presented a somewhat different trend in that the high leaders versus low leaders group did not show significant differences, and a change of direction was indicated in one of the significant comparisons. In the high followers versus low leaders group, the low leaders had the higher scores.

Analyses of the school attitude scale illustrated a reversed trend in that four of the group comparisons were not significant, but the high leaders versus low followers groups maintained significant differences.

#### Limitations

Certain limitations should be kept in mind while interpreting the results of this study. One of the more important limitations to consider is related to the sociometric techniques used to identify the leaders and followers. The face validity of the instrument in association



with the use of a teacher rating scale gives us a theoretical base to work with, but the reader must be careful not to over-emphasize the results and endow sociometry and the results with near mystical qualities. The reader should also note that the problems relating to the reliability and validity of the sociometric results should also be considered with the self-concept and school attitude variables. These two scales also have face validity but are experimental in nature, and any interpretation of the results should take this into consideration. One should also look at the results of previous investigations in which the individual's "self report" is often subject to a "halo effect" or personal bias.

In this study, which deals with a relatively-limited sample of students from one geographical area, one must be cautious when making population comparisons. It would be erroneous to apply these results in a generalized way to other similar populations.

#### Conclusions and Recommendations

The intent of this selection is to present and discuss the conclusions derived from the data presented in Chapter IV. The evidence resulting from the analysis of this data appears to support the general conclusion that the majority of student groups from the higher socioeconomic settings had significantly higher scores on the tests that were given than their counterparts in the lower

socio-economic setting. There were many exceptions to this pattern, but in thirty-eight of the sixty-six comparisons between the groups of students, the groups from the high socio-economic area scored significantly higher. Although this was the general trend offered by the statistical results, there were exceptions that lead to other possible conclusions.

When the students from the high socio-economic environment identified as followers are compared on the selected variables to the identified leaders from the low socio-economic environment, there is little evidence presented indicating significant differences. In the comparison of these two groups, there is a significant difference calculated on only two of the variables. One of these differences is in the area of arithmetic achievement which suggests that in the low socio-economic environments the general atmosphere may lead to conditions that are not particularly conducive to the learning and understanding of mathematical concepts. The results indicate that this is an area of academic preparation that should be given close scrutiny in the economically-depressed areas. The only directional change that is indicated in the study also developed in the comparisons between these two groups on the self-concept scale, in which the low leaders have significantly higher scores than the high followers. The data presented here on the self-concept scale suggest that although the low leaders may

be lacking in some areas of academic preparation they have a more positive self-understanding than the high followers. The analysis comparing the high leaders and low leaders on this same scale indicate no significant difference. This analysis suggests that the student followers in the high economic areas may have a lower, more negative feeling of self-worth, and it is an area of inter-student relations that should be given further consideration. The results obtained in this comparison of the student's self-concept is also supported by the significant difference indicated between the high leaders and the high followers.

The results also seem to indicate that the leaders from the high environment are more intelligent and have acquired a higher level of academic achievement than the leaders from the low areas. Analyses of the results associated with this point of view indicate that the students in the low setting do not choose leaders that are brighter than they are themselves or students that have acquired greater academic achievement skills. The trend indicated in the high environment presents a reversed pattern. Here we find that in a majority of the comparisons, the students chose leaders that were more intelligent and had acquired significantly higher scholastic achievement skills.

Although it appears that in the areas of intelligence and scholastic achievement, the comparisons of the follower groups in the contrasting environment are

significantly different and follow the pattern of their leader counterparts, the results indicate that the followers from the two settings are quite similar in self-concept and in their attitude toward school.

The results of this study and the questions that it has brought forth point out the need for further research in the area of student leadership. It also appears desirable that future research studies conducted in this area be designed to expand into other areas of academic study, self-understanding, and inter-student relationships.

## SELECTED BIBLIOGRAPHY

- (1) Abse, Wilfred D. and Luci Jessner. The Psychodynamic Aspects of Leadership, from Stephen R. Graubard and Gerald Holtons' Excellence and Leadership in a Democracy. New York and London: Columbia University Press, 1962, page 85.
- (2) Bird, Charles. Social Psychology. New York: Appleton-Century, 1940, 369-92.
- (3) Brown, Marian. Leadership Among High School Pupils. Bureau of Publications, Teachers College, Columbia University, 1933.
- (4) Buros, Oscar Krisden. Fifth Mental Measurements Yearbook. Highland Park, N.J.: The Gryphon Press, 1959.
- (5) Burt, Cyril. "Review" Fifth Mental Measurements Yearbook. Highland Park, N.J.: The Gryphon Press, 1959.
- (6) Cartwright, Drowin and Alvin Zander. Group Dynamics Research and Theory. Baltimore: Row, Peterson and Co., 1960, Part V, 492-98.
- (7) Clark, E. M. "Of Leaders and Followers," from Vital Speeches, July 15, 1963, Vol. XXIX, No. 19, 602-05.
- (8) Cottingham, Harold F. Guidance in Elementary Schools. Bloomington, Ill.: McKnight and McKnight Pub. Co., 1956, page 14.
- (9) Detjen, Ervin W. and Mary F. Detjen. Elementary School Guidance. New York: McGraw-Hill, 1963, page 1.
- (10) Freed, Alvin. Sociometry and Sociodrama. (unpub. M.S., San Juan Unified School District, 1962).
- (11) Froehlich, Clifford P. Guidance Services in Schools. New York: McGraw-Hill Book Company, Inc., 1958, page 360.

- (12) Gibb, Cecil A. "The Principles and Traits of Leadership." Journal of Abnormal and Social Psychology, 1947, Vol. 42, 267-84.
- (13) \_\_\_\_\_. Leadership, in Gardner Lindzey (ed.) Handbook of Social Psychology, Vol. II. Boston: Addison-Wesley Pub. Co., 1954, page 986.
- (14) Gibb, Jack R. "Dynamics of Leadership," from Vital Speeches, April, 1967, Vol. XXXIII, No. 12, 375-80.
- (15) Gouldner, Alvin W. Studies in Leadership. New York: Harper and Brothers, 1950, 21-25.
- (16) Haiman, Franklin S. Group Leadership and Democratic Action. Boston: Houghton Mifflin Co., 1951, page 119.
- (17) Harris, Arthur L., John F. Hughes. From the foreword of Guidelines: Special Programs for Educationally Deprived Children. United States Department of Health, Education and Welfare, Office of Education, 1965.
- (18) Hollander, Edwin P. Leaders, Groups, and Influence. New York: Oxford University Press, 1964.
- (19) Hollingshead, August B. Elmtown's Youth. New York: John Wiley and Sons, 1949, 83-120.
- (20) \_\_\_\_\_. Guidelines: Special Programs for Educationally Deprived Children. United States Department of Health, Education and Welfare, Office of Education, 1965.
- (21) Hollingworth, Leta S. Children Above 180 I.Q. New York: World Book Co., 1942, page 287.
- (22) Jones, Arthur J. Principles of Guidance. Chap. 7, Meeks, Anna R., Guidance in the Elementary School. New York: McGraw-Hill Book Company, Inc., 1963, page 132.
- (23) Klineberg, Otto. The Human Dimension. New York: Holt, Rinehart and Winston, 1964, 58-68.
- (24) Krech, D. and R. Critchfield. Theory and Problems of Social Psychology. New York: McGraw-Hill, 1948, 417-22.

- (25) Lewin, Kurt. "The Consequences of Authoritarian and Democratic Leadership," in Alvin Gouldner's Studies in Leadership. New York: Harper and Brothers, 1950, 409-17.
- (26) Lippitt, R. and R. White. An Experimental Study of Leadership and Group Life, From Eleanor Maccoby, Theodore Newcomb and Eugene Harley's Readings in Social Psychology. New York: Holt, Rinehart and Winston, Inc., 1958, 495-410.
- (27) \_\_\_\_\_. The Social Climate of Children's Groups, from R. Baker's Child Behavior and Development. New York: McGraw-Hill, 1943, page 27.
- (28) McDaniel, Henry B. Developmental Survey of Guidance Services in the San Juan Unified School District. (unpub., Carmichael, California, 1964-65).
- (29) \_\_\_\_\_. Guidance in the Modern School. New York: Holt, Rinehart and Winston, 1956, page 3.
- (30) Miller, Carroll H. Foundations of Guidance. New York: Harper and Brothers, 1961, page 164.
- (31) Miller, Frank W. Guidance Principles and Services. Columbus: Charles E. Merrill Books Inc., 1961, page 297.
- (32) Moreno, Jacob L. Who Shall Survive. Washington, D.C.: Nervous and Mental Disease Publishing Co., 1934, page 10.
- (33) Neidt, Charles O. "Review" Fifth Mental Measurements Yearbook. Highland Park, N.J.: The Gryphon Press, 1959.
- (34) North, Robert D. "Review" Fifth Mental Measurements Yearbook. Highland Park, N.J.: The Gryphon Press, 1959.
- (35) Partridge, E. DeAlton. Leadership Among Adolescent Boys. Bureau of Publications, Teachers College, Columbia University, 1934.
- (36) Peters, Herman J., Anthony C. Riccio, and Joseph J. Quaranta. Guidance in the Elementary School, A book of readings, Jersild, Arthur T. New York: The Macmillan Co., 1966, page 271.
- (37) Pigors, Paul. Leadership or Domination. New York: Houghton Mifflin Co., 1935, page 15.

- (38) Siegel, Sidney. Nonparametric Statistics. New York: McGraw-Hill Book Co., Inc., 1956.
- (39) Sullivan, Elizabeth T., Willis W. Clark and Ernest W. Tiegs. California Test Bureau Manual. California Short-Form Test of Mental Maturity, 1963 Revision.
- (40) Warters, Jane. Group Guidance. New York: McGraw-Hill Book Company, 1960, page 27.
- (41) Wrenn, Gilbert C. The Counselor in a Changing World. A.P.G.A., 1962, 37-149.



VITA

3

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