21871

National Library of Canada / Bibliothèque nationale du Canada

CANADIAN THESES ON MICROFICHE / THÈSES CANADIENNES SUR MICROFICHE

NAME OF AUTHOR/*NOM DE L'AUTEUR* MARVIN DOUGLAS KROETSCH

TITLE OF THESIS/*TITRE DE LA THÈSE* Correlates of Social Acceptance in the Elementary Schools

UNIVERSITY/*UNIVERSITÉ* University of Alberta

DEGREE FOR WHICH THESIS WAS PRESENTED/*GRADE POUR LEQUEL CETTE THÈSE FUT PRÉSENTÉE* M. Ed.

YEAR THIS DEGREE CONFERRED/*ANNÉE D'OBTENTION DE CE DEGRÉ* 1974

NAME OF SUPERVISOR/*NOM DU DIRECTEUR DE THÈSE* Dr. E. E. Fox

Permission is hereby granted to the NATIONAL LIBRARY OF CANADA to microfilm this thesis and to lend or sell copies of the film.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

L'autorisation est, par la présente, accordée à la BIBLIOTHÈQUE NATIONALE DU CANADA de microfilmer cette thèse et de prêter ou de vendre des exemplaires du film.

L'auteur se réserve les autres droits de publication; ni la thèse ni de longs extraits de celle-ci ne doivent être imprimés ou autrement reproduits sans l'autorisation écrite de l'auteur.

DATED/*DATÉ* Aug. 28, 1974 SIGNED/*SIGNÉ* M. Kroetsch

PERMANENT ADDRESS/*RÉSIDENCE FIXÉ* Edson, Alberta.

NL-91 (11-73)

THE UNIVERSITY OF ALBERTA

CORRELATES OF SOCIAL ACCEPTANCE IN THE ELEMENTARY SCHOOL

BY

(C) MARVIN DOUGLAS KROETSCH

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF EDUCATION

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

EDMONTON, ALBERTA

FALL, 1974

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled CORRELATES OF SOCIAL ACCEPTANCE IN THE ELEMENTARY SCHOOL submitted by MARVIN DOUGLAS KROETSCH in partial fulfilment of the requirements for the degree of Master of EDUCATION

Supervisor

Date August 26, 1974

DEDICATION

To my wife, LYNANN, without whom this thesis would not be.

To my son, MICHAEL; may social rejection never be a problem for him.

ABSTRACT

To explore the relationship of personality and demographic variables to social status in the elementary school, all grade three students in the Yellowhead School Division were given a sociometric questionnaire. From the data they were categorized into five groups: 1. Accepted child, 2. Rejected child, 3. Isolated child, 4. Ambivalent-Impact child, 5. Average child. Each student was then administered the Children's Personality Questionnaire. Additional data establishing the subject's sex and place of residence was collected.

Analysis of data revealed that the sociometrically derived groups did not differ with respect to: (a) number of classmates chosen and number of classmates rejected; (b) awareness of sociometric status; (c) sex; (d) place of residence and (e) personality traits as measured by the CPQ. However, patterns of relationships between the monitored variables did emerge and are discussed and depicted in the thesis.

ACKNOWLEDGEMENTS

The writer wishes to acknowledge with sincere appreciation all those people who were involved in the preparation of this thesis.

In particular expressions of appreciation are directed to Dr. E. E. Fox for his excellent counsel and direction, and for his consistent positive attitude toward my work; to Professor J. Goldberg and Dr. W. Wilde for their helpful and constructive suggestions; to B. A. Chandler and the professional staff in the schools of the Yellowhead School Division for their kind cooperation; to Dr. R. MacArthur for showing that statistical analysis is not a thorn; to my wife Lynann a very special thanks for her constant support, encouragement, and help, particularly in typing the original manuscript of this thesis.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION AND THESIS PROBLEM

Introduction

Don, a fourteen year old student tearfully enters the counsellor's office. He is a very intelligent student, taller than average and very much overweight. His academic standing has always been at the top of the class. Don's problem is that for as long as he can remember his classmates have jeered at him and ridiculed him frequently. Most attempts on his part to change the situation have failed and he feels he has exhausted all alternatives open to him.

Don's problem of peer rejection is a too-common one for many children. Consequences of such rejection are always emotionally trying for the rejected child, as illustrated in these further examples.

Edna, a short, chubby adolescent female has been consulting the counsellor for help in trying to win friends. A year previously, she attempted suicide in a vain attempt to avoid the loneliness and pain her classmates have inflicted upon her in refusing to associate with her. She is talking of suicide again.

Ellen and Bob, brother and sister, are fighting a losing battle to become accepted by their junior high school classmates. Both Ellen and Bob are considered to be very polite and mannerly by their teachers. However, both continue to have insults and cruel practical jokes heaped upon them in spite of all their attempts to please their classmates. Bob is considering quitting school as soon as possible; he knows no other solution. Ellen has not yet given up her attempts to change her

social status.

James, a spirited and restless student, has an unenviable knack for inducing other boys, usually bigger than himself, into fighting with him. These fights invariably result in James' being beaten. He constantly complains of being picked on. All assistance by school staff has so far been futile.

Although these examples are admittedly of a sensational nature, they adequately illustrate the severity of social rejection. These five students, actual cases in a school (although the names have been changed), illustrate what has always been a frustrating and heartbreaking problem for every teacher, the experiences of what has been variously described as the "low-sociometric child," the "social isolate," the "unaccepted child," the "rejected child," the "alienated child," and the "unpopular child." Frustrating in that most attempts at helping the child do not work, and heartbreaking in the knowledge that the child is undergoing a severe trauma, and the teacher while knowing this, can do nothing.

The problem is of major proportions, in quantity as well as quality. Children with low sociometric status have been shown to outnumber those of a relatively high sociometric status (Thombs and Muro, 1973). Low sociometric status children also tend to adopt self-defeating strategies to change their sociometric position (Lanning and Robbins, 1972). Such a high incidence of children with problems in social relationships, coupled with the children's inability to bring about change on their own suggests that if effective change is possible, a great deal of counsellor time must be directed toward the problem of the socially rejected child.

As the problem is of such a magnitude, it seems highly justified that a concerted effort at research and development of effective intervention strategies be made to help the counsellor in his task. Ideally, if it were possible to isolate behaviors which cause a child to be rejected, appropriate behavior modification strategies could likely be employed to allow the child to develop social interaction behaviors (Lilly, 1971). Such an approach however, seems premature as not enough is presently known regarding the actual behaviors which retard socialization. Moreover, behaviors can not be considered out of context. Therefore, most research to date has concentrated upon isolating general correlational data, an important first step in simplifying the task of studying causal relationships.

In the preceding portion of this chapter, an attempt was made to show the need for an extended effort into researching the phenomena of social rejection. A well-researched and well-developed fund of correlational data was shown to be of particular importance in establishing a solid foundation for research into the dynamics of rejection. In the remainder of the chapter, it will be shown how the present study purports to contribute to the foundation of rejection research, with the emphasis placed on correlation of personality with sociometric status.

Personality as a Focal Point

Personality can be viewed as a topic central to the problem of social rejection. To demonstrate this, a relevant personality theory will be reviewed, and its relationship to, and application in, the present study will be outlined.

According to Cattell (1950, 1957) personality is concerned with

all the behaviors of the individual, both overt and covert. Personality assessment of an individual would then represent a complete picture of the typical behaviors displayed by the individual (a task inherent in the present study). To derive an instrument capable of personality assessment, Cattell concerned himself first with delineating a complete range of behaviors for human beings. The answer appeared to lie in the human language. Every aspect of one human being's behavior that is likely to affect another has come to be handled by some verbal symbol. These verbal symbols, or descriptors, are called "traits" by Cattell (1950). However, the initial difficulty in describing personality by traits is that there are too many of them, three to five thousand traits in the language of civilized people (Allport and Odbert, 1936). To discover if any of these traits are related (and to therefore bring the number down to a more manageable size), Cattell submitted them to a multiple correlational analysis called factor analysis. He did find that all the traits were manifestations of some larger, single underlying personality traits, called "source traits." For children of about age eight years, Cattell derived fourteen source traits. The result of a great deal of work was the development of an instrument for measuring these traits, the name of the instrument called the Children's Personality Questionnaire. When administered in the manner prescribed by Cattell, the test yields scores which indicate a summary of personality characteristics for an individual child (or for select groups of children, if handled that way).

In the present study, groups of children (determined by sociometric means) were administered the Children's Personality Questionnaire in an effort to determine the relationship of personality character-

istics to sociometric status. The means of, and justification for, determining which subjects to study, as well as a discussion of other areas of investigation included in the present study, follow immediately.

The Thesis Problem

With regards to social rejection most research has been done with subjects of adolescent age or older. This is unfortunate. Children tend to develop a social behavioral repertoire that remains relatively constant and impervious to change in the absence of some kind of social behavioral intervention (Barclay, 1966a). The longer that the children are allowed to perform inappropriate behaviors, the stronger the behavior is established; hence the more difficult becomes the task of extinction of the inappropriate behaviors and the relearning of new more appropriate behaviors (Wolpe, 1958). Therefore, the earlier the intervention can take place, the more effective the intervention will be.

There appears, however, a limit as to how early in life social rejection can be studied, as well as how early in life it can be viewed as a problem. Below about age eight years, peer groups are predominantly incohesive and in a constant state of flux (Moreno, 1953). Observed rejection below age eight may or may not be the actual beginnings of permanent rejection behaviors.

The optimum age to focus research upon, evidently, is eight years of age or, when students are in grade three at school. Sociometric data for that group reaches an acceptable level of reliability, while the group social behaviors exhibited by "pairing" and "interlocking of pairs" is in its initial stages of development

(Moreno, 1953). "Pairing" and "interlocking of pairs" as used here and by Moreno, refers to the development of more stable, two-way friendship patterns, with their eventual union with other existing dyadic friendships. Therefore, this study will focus upon grade three students.

As will be discussed in chapter two, early studies differentiated between the isolated child and the child actively rejected. However, research into the personality characteristics of young children in these two categories was limited. Valid and reliable tests of personality which were broad in scope and convenient to administer were not available for young children. After such tests as the Children's Personality Questionnaire (CPQ) were available, operational restrictions emerged which severely limited psychological investigations. For example, the inclusion of "negative" choice questions in sociometric tests (necessary to differentiate the isolate from the reject) were discontinued by most researchers because it was found to cause resentment within the groups, as well as complicate statistical analysis of results (Northway, 1967). The deletion of the negative choice resulted in the social isolate and the social reject being treated as members of a common group. Highly accepted children and high ambivalent impact children (those both highly accepted and highly rejected) were also placed in a common category. These actions were unfortunate in that subsequent research related to the broad rather undifferentiated grouping must be viewed with a great deal of caution, as the research may have arrived at invalid conclusions.

As an illustration of how more precise differentiation can influence results, in a recent study involving differentiated groups of social isolates, highly rejected children, highly accepted children,

and high ambivalent impact children, the reading patterns of the social isolate were not significantly different from those of the highly accepted child. However, the rejected child, who is more actively disliked, displayed a poorer reading performance than both the accepted and isolated child (Bloomer, 1969). This is surprising in view of the fact that the traditional stand taken is that the isolate belongs in the same group (and is usually included) as the rejected child, while considered diametrically opposite in characteristics to the highly accepted child. Therefore, a more differentiated grouping approach seems to yield more information.

The present study (for reasons just given) will concern itself with subjects presently in grade three; the groups will be sociometrically determined within the guideline of Bloomer's sociometric categories. Thus this study will focus upon the following five differentiated groups:

1. Highly accepted children.
2. Highly rejected children.
3. Socially isolated children.
4. High ambivalent impact children.
5. Average children (those not in groups 1 - 4).

In addition to studying the relationship between personality characteristics and sociometric status the relationship to sociometric status of four other psychological and demographic variables will be investigated. Each of the additional variables have been the focus of numerous other studies (as detailed in Chapter II). Because the results of those studies have been somewhat contradictory, it was felt that to include the four extra variables in the present study was justified.

The present study will attempt to determine therefore, the relationship between the following variables:

1. Sociometric status (acceptance and rejection).
2. Personality traits.
3. Sex.
4. Residence (in town or out of town).
5. Awareness of sociometric status (acceptance and rejection).
6. Degree of acceptance and rejection of others (positive and negative feelings toward others).

Although the variables under scrutiny in this study, as just outlined, have been shown to be important and relevant in understanding rejection phenomena, they represent only a portion of those variables which have been investigated. This will be evident in Chapter II, where a survey of studies will be included in which variables other than those of this study were investigated.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

Moreno's Who Shall Survive, in which he described valid and reliable methods of measuring the social status of individuals within groups, was the initiator for the volumes of research related to the present study. This interest in social acceptance and rejection phenomena was most intense during the period of time from when Who Shall Survive was first published (1934) up to the late 1950's. Correlation studies were undertaken covering almost every conceivable contributory factor, including one in which acceptance was correlated with "Pubescence: a three point rating of presence of pubic hair, made by the school gym instructor in individual examinations in the locker room" (p. 564, Davis, 1957). Because sociometry was, and to an extent, still is in its infancy, much of the research was random, non-standardized, and non-systematized.

In the following pages of this chapter, a select, representative sample of research related to correlates of sociometric status will be reviewed.

The first review section will deal with studies which were examinations of variables not included in the present study. These studies were included in the review as it seemed to contribute toward a more complete portrayal of the children under scrutiny in the study.

The second review section will examine the research related

directly to the variables in the present study. As much as is possible, the emphasis will be upon research concerning children in the elementary grades, particularly those near the grade three level.

The third review section termed "A Critique" will outline some limitations of the related research, to date.

Finally, based on the review, the operational definitions of sociometric groups will be given, followed by a statement of the hypotheses relevant to the present study.

A Review of Research Not Directly Related to the Present Study

Sociometric Patterns and School Achievement

Sociometric placement does appear to have a relationship to school performance.

Hill (1963) found that rejected children suffer from high anxiety levels. Palermo, Castenada and McCandless (1960) found that highly anxious children were not able to perform as well on conceptual learning tasks. High anxiety was also shown to correlate negatively with language arts achievement (Scarborough, Hindsman and Hanna, 1961). A conclusion from these results is that students not accepted by their peers will achieve poorly in academics generally and in language arts specifically. This conclusion has been supported in studies with elementary school students (Grossman and Wrighter, 1948; Bloomer, 1969; Stevens, 1971), with male junior high students (Davis, 1957) male senior high students (Pulvino and Meckelson, 1972), with British students including elementary, junior high and senior school pupils (Richards, 1967) and university undergraduate students (Pulvino and Hansin, 1973).

The relationship of sociometric status is not limited to academic courses. In non-academic courses such as band, shop and

physical education, rejected children are also less successful than normal children (Muma, 1968). A factor contributing to the rejected child's low achievement in school courses is his apparent low ability to conform to classroom requirements (Bonney and Powell, 1953). School then becomes an unpleasant place for rejected children, to the point that they leave school earlier, and at a higher rate than do the non-rejected children (Barclay, 1966a).

Finding the way to increase a rejected child's popularity, then, would facilitate his learning process as well as give him an approach reaction rather than an avoidance reaction to school.

Sociometric Patterns and Physical Appearance

Studies concerned with the relationship between sociometric status and physical appearance have focused on the young adolescent for whom the variables do seem related. Kuehne and Creekmore (1971) found that clothing was significantly related to the social status of high school girls, but not for boys. In general agreement with this was Litrell and Eicher (1973) who found, in addition that if the socially unaccepted grade nine girl shared the same general opinion regarding suitability of clothing and appearance as that of her reference group, she had a significantly better chance of moving into an acceptable status i.e. the reference group. In a slightly different approach, Brozovich (1970) questioned grade six students as to what characteristics they associated with popularity; two dimensions of appearance, (clean and neat, and best looking) emerged as those factors correlated highest with popularity i.e. .75 and .80 respectively. An earlier study (Austin and Thompson, 1948) with grade six students indicated that appearance was not a significant factor determining selection and rejec-

tion of peers. A possible explanation may lie in the value differences between children twenty years ago and of children today, at the grade six level particularly. At any rate, for younger children, the results of sociometric status--appearance studies are inconclusive.

Sociometric Patterns and Interests

Results of studies investigating the association of interests and sociometric patterns have also been inconsistent. Austin and Thompson (1948) asked grade six students in an urban setting to explain reasons for selection of friends. Similarity of interests was given as being a highly important factor in acceptability. Richards (1967), working with British students of ages 11 to 16 years, found no correlation between interests and sociometric status. However, the relationship between interests and social acceptability seems determined somewhat by the population being studied (Barclay, 1966b). In a rural community, no interest differences were noted between sociometric status levels for 10 to 14 year olds. However, interests did correlate with sociometric status of students of that age in an urban community. High sociometric status boys and girls were less interested in western oriented materials and religious music and more interested in current popular fads and music while the opposite was true of low sociometric status children. Rural-urban differences in this study may have been due to the fact that country and western oriented materials and music may be the popular fads and music for the rural areas. Therefore both high and low sociometric children would have similar interests in the rural areas, but not necessarily so in urban areas. The differences, rather than the actual kinds of interests, seem to be the factors differentiating sociometric status. At present, however, no real conclusions regarding the

relationship seem possible, without further well-controlled replicative research.

Sociometric Patterns and Birth Order

Results of studies attempting to establish correlations between birth order and popularity among peers are also contradictory. Shacter (1964) states that first borns, being timid and dependent, should thus be less popular. However, Alexander (1966), agreeing that first borns are "sensitive-dependent," suggests that they should be therefore more popular.

> The sensitive-dependent person is seen to be more aware of, and to take greater account of, the feelings and expectations of others, and this implies that he is more adept in social situations. Greater social adeptness should generally lead to greater acceptance by others. . . . (Alexander, 1966, p. 44)

Both Alexander (1966) and Schacter (1964) obtained results supporting their respective antithetical hypotheses. Shacter, using undergraduate student subjects, found that the later borns were considerably more popular than first borns, while Alexander, using senior male high school student subjects, found first borns to be more popular than later borns. Earlier, Marshall and McCandless (1957) studying preschoolers, found that adult-dependency correlated negatively with social acceptance. If we assumed all other factors being equal (which in fact, they are not) then Marshall and McCandless would indeed support the hypothesis that first borns, being dependent, would be less popular than later borns. However, due to the variation in conditions of the three studies, no real conclusion seems possible--further, more closely controlled replicated studies are needed to clarify the issue.

Sociometric Patterns and Other Demographic Variables

Bonney (1944) found that the high acceptance child had a high probability of coming from a smaller family unit, with a higher socio-economic background. Elementary school children high in popularity also reported greater acceptance by their parents than did those low in popularity (Armentrout, 1972). Male college students who were socially rejected had had more frequent moves when living with their families (Kidd, 1951).

A Review of Research Directly Related to the Present Study

Sociometric Patterns and Sex Differences

According to Moreno (1953), subjects at a grade three level tend to choose friends of the same sex. If the subjects were divided equally between boys and girls, then sex differences should be unrelated to sociometric status. In most studies, this was found to be true. However, Marshall and McCandless (1957) using pre-schoolers as subjects, discovered that girls were chosen more often than boys. The present study will try to investigate the relationship between sociometric status sex differences in an attempt to resolve the issue.

Sociometric Patterns and I.Q.

Findings in studies correlating sociometric status and ability, intelligence, and/or I.Q. have been consistent. Elementary students who have higher peer acceptance also have higher intelligence (Bonney, 1944; Grossmann and Wrighter, 1948; Miller, 1956). Rejection by peers was found primarily in students whose I.Q. was below normal (Grossmann and Wrighter, 1948). Both Davis (1957) and Richards (1967) found that peer acceptance and intelligence correlated positively for junior high students as well.

For the purposes of this study, scoring on Factor B (Intelligence) of the CPQ will be correlated with the variables associated with sociometric status including a determination of CPQ Factor B score differences between sociometric groups.

Sociometric Patterns and Rural-Urban Cleavage

Research investigating the relationship between sociometric status and place of residence (nearness to peers) has been very inconclusive.

Grade six students reported that nearness of residence of peers was an important factor in selecting them as friends (Austin and Thompson, 1948). Sociograms of children age 11 to 16 years old in Britain supported this (Richards, 1967). Country students tended to choose other country students as friends, while town students tended to choose other town students as friends. Seagoe (1939) also found this but qualified the conclusion by saying that opportunity for frequent social interraction appears to be a necessary but not sufficient condition for establishing friendships. However, Becker and Loomis (1948) using high school students as subjects, found that on the contrary, no such rural-urban friendship cleavage existed. Friendship choices flowed from farm to non-farm students freely. In an extensive study using children in grades 1 to 12 from both rural and urban residences, Devault (1957) found that children tended to choose friends among their classmates who live successively farther from them as they progressed through the twelve grades. Only in grades 10, 11 and 12 did children living closer together choose one another more frequently than those living farther apart. This would seem to contradict the earlier studies. However, when DeVault writes of greater distances between friends as

students progress from grade one to six, he is referring to changes from a mean distance of 1.2 miles for grades 1, 2 and 3 to 1.6 miles for grades 4, 5 and 6. In some communities such as are found in towns in rural Alberta, .4 miles is not a significant distance. A student living one mile from town may have all the necessary opportunities for frequent interraction that Seagoe (1939) refers to. Some students living ten miles from town, with ready access to transportation may also have ample opportunities for social interraction. Therefore, another variable, time spent in urban social interraction, in addition to distance, may be just as important a factor in determining social status.

In the present study, the subjects are divided almost equally as to urban-rural residency. As a means of attempting to clarify the issue as to whether place of residence does relate to sociometric status, the sociometric groups will be compared as to residence differences. In addition, the place of residence will be correlated with the other demographic, sociometric and psychological variables, in an effort to further illuminate the dynamics of social rejection and acceptance.

Sociometric Patterns and Behavior-Personality Variables

By far the greatest amount of research into correlates of sociometric status has been concerned with behavior-personality variables. The methods used range from behavior observations, including judgemental non-standardized teacher evaluations, through uses of clinical projective personality tests such as the Rorschach, up to well developed objective tests of personality such as the Children's Personality Questionnaire (Cattell, 1963). Most of the research has focused on the adult subject, particularly early research, as a better selection of assessment instru-

ments are available for the adult population. Although the focus of this study is on the lower elementary grade school subject, specifically grade three students, a representative sample of research on other subjects will be included in a review of the research.

Ring, Braginsky and Levine (1967) and Wallston (1972) showed that the ineffective interpersonal interactor is one who is inept and ignorant at role playing, who cannot play a role beyond that in which he believes is indicative of himself, and is therefore attitudinally and behaviorally rigid. He is inept and unpolished socially, and finds interaction non-rewarding. He may be well motivated, be able to state appropriate and effective interpersonal behavior, but is unable to practise it. Consistent with this are findings that the low sociometric status person is dogmatic (Larsen, 1971), alienating other group members by displaying traits of intolerance and rigidity. Lanning and Robbins (1967) found also that rejected children are unable to socially adapt, but tend to develop self-defeating strategies for solving their problems. A suggestion (since disputed by Wallston, 1972) was that if the child was exposed to role playing, in which he experienced the giving and receiving of socially irritating behavior, this will show him appropriate behaviors. As has been shown, however, knowing appropriate behaviors seems insufficient a condition for assimilating such behaviors into the rejected child's repertoire.

The question of the rejected child's awareness or unawareness of his sociometric status remains an unanswered one, particularly for the student in the primary grades. Miller (1956) found high acceptance persons more aware of their sociometric status than low acceptance persons. Adinolfi (1970) after reviewing numerous studies, concluded

that the low acceptance or rejected individuals are unable to accurately predict their status. In contrast, grade four students of low sociometric status were shown to be very much aware of their status (Stevens, 1971). Further studies are in order to clear up this inconsistency in results.

The role of behaviors in establishing sociometric status is described in Interpersonal Diagnosis of Personality (Leary, 1957). According to Leary, personality is but a pattern of interpersonal responses expressed by the individual. In addition, interpersonal activities are goal-oriented, in particular to promote self-esteem or avoid anxiety. Such goals are realized by appropriate reactions of significant others. Leary further suggests that these goal-oriented activities on the part of one person elicit certain and predictable reactions from others. Positive behaviors elicit positive behaviors and negative behaviors would elicit negative behaviors. Combinations of these behaviors would pull the expected combinations in return. Thus, bitter rebellious behavior (negative and submissive) would pull punitive rejection and superiority from others. In reverse, rejection and dominance by others results from negative and submissive behavior on the part of the rejected child. This is consistent with most of the research results found in the literature.

At a college level, behaviors found to be characteristic of rejected males were of the physically aggressive, bragging, showing off, attention demanding, immature and socially inept kind (Kidd, 1951; Bonney, Hobbit and Dreyer, 1953).

Northway (1944) in looking at low acceptance kids found some were shy, withdrawing, socially uninterested persons (submissive), while

others were noisy, boastful, socially ineffective persons (negative). In other studies, much the same behaviors were found typical of socially unacceptable or rejected children--generally poor social skills involving inefficient and non-rewarding (to others) aggressive behavior, as well as naive attempts at becoming more acceptable (Bonney, 1944; Northway and Wigdor, 1947; Brozowich, 1970). In two studies involving behavior observations of grade one subjects (Bonney and Powell, 1953) and pre-schoolers (Hartrup, Glazer, and Charlesworth, 1968), high acceptance children (measured in terms of positive choices) gave more positive reinforcement (smiles, cooperative and voluntary group behaviors) to their peers than did low acceptance children. There was no difference between the groups with regards to negative behaviors. However, when the low accepted child was determined as a result of rejections, greater amounts of negative behaviors came from them than the accepted children. The difference is in separating the isolated child and the rejected child in the low acceptance group. As Leary (1957) has pointed out submissiveness apart from negativity may contribute to low acceptance. The social isolate may also be of low acceptance in that they are unnoticed, so not chosen. A low overt classroom participation rate has been shown to correlate with low regard of a child (Petersen, 1968; Larsen, 1971). This does not imply rejection, as those very unnoticed by the group are more likely to be liked than disliked (Lemann and Solomon, 1952).

Research using instruments for measuring personality variables characteristic of sociometrically determined groups has also demonstrated that high social acceptance is associated with positive personality characteristics, while low social acceptance is related to lack of

positive personality traits and the presence of some negative characteristics.

Adult male isolates (as compared with non-isolates) have greater anxiety, trends toward schizoid and psychopathic deviate patterns (Mill, 1953), egocentricity and an unawareness of group definitions and expectations (Kidd, 1951), and are more exhibitionistic and aversive to the advice of others (Adinolfi, 1970). Rejected female university freshmen were shown to be dominating, exhibitionistic, controlling and self-protective (Adinolfi, 1970). However, in contrast to these studies, Bonney, Hobbit and Dreyer (1953) found no real correlation between sociometric status and any of Cattell's sixteen personality factors.

Research with the high school population has shown unaccepted high school students to be less self-confident, less cheerful, less enthusiastic, less acceptant of group standards, less conventional, less concerned with social approval (Guinouard and Rychlak, 1962), as well as differing from accepted students in having lower self-reliance, a lower sense of personal worth and freedom, greater withdrawal tendencies and nervous symptoms, higher social standards, poorer social skills, and greater anti-social tendencies (Scandrette, 1953; Bauer, 1971).

Bonney (1943) working with students in grade four found that strong positive personality traits and friendly attitudes are more important in establishment of relationships than are negative traits. A conclusion in that study was that perhaps docility, nicety, and submission to authority, traits generally rewarding to adults dealing with children, may in fact pose a handicap in children's strivings for peer acceptance. Other studies since seem to support this conclusion.

As youngsters reach the upper elementary grades, or beyond, masculinity in boys is more rewarded than femininity in girls (Gray, 1957). Extremes of masculinity in girls are not rewarded however, nor is femininity in boys, both correlates of low sociometric status (Brozovich, 1970). Outgoing personality characteristics (Northway and Wigdor, 1947), high personality or ego stability (Barclay and Barclay, 1965; Richards, 1967) with normal personality adjustment (Grossman and Wrighter, 1948; Sheik, 1972) all correlate positively with high acceptance by peers.

In these studies however, a precise differentiation of groups as recommended by Bloomer (1969) was not done. Actual generalizations of results from the reviewed studies to the present study are not possible. To further the knowledge regarding the relationship of sociometric status to personality-behavior variables, the present study will examine the differentiated sociometric groups with regards to:

1. Personality traits as determined by the CPQ.
2. Degree of negativeness toward peers as determined by the number of peers rejected on a sociometric questionnaire.
3. Degree of positiveness toward peers as determined by the number of peers chosen on a sociometric questionnaire.
4. Socioempathy as determined by the size of discrepancy between estimated and actual rejections and acceptances received.

In addition, intercorrelations between the monitored variables will be examined.

A Short Critique of the Literature Reviewed

Many of the studies reviewed here support one another, while many fail to replicate. Reasons why either happens are not clear. Some

of the problems contributing to inconsistent results are as follows:

1. Operational definitions of the status groups rarely are similar from study to study. The difficulty lies in sociometric instruments, some of which contain only choice questions related to work (Scandrette, 1953) or to play (Austin and Thompson, 1948; Miller, 1956), or both (Guinouard and Rychlak, 1962), while others include both choice questions and rejection questions uncombined (Gronlund and Anderson, 1957), and combined to give a "t" score of sociometric status (Barclay, 1966b). Some studies limited the number of accepts and rejects the children could list (Guinouard and Rychlak, 1962) while others counted all students listed (Halpin, Halpin and Hartley, 1972). After sociometric measurements were taken, designation of students (labelling) was somewhat arbitrary. Bauer (1971) used the ten students with the highest score on his scale to be "most preferred students" and those ten with the lowest score to be "least preferred students." Guinouard and Rychlak (1962) used random percentage points as sociometric criterion. Lemann and Solomon (1952) used probability calculations to label their subjects.
2. Most studies used only the choice sociometric questionnaire: this resulted in placing social isolates and rejects in the same group, and highly accepted and high ambivalent impact children in another. Research has shown that each category is in fact different in many respects and that grouping them together causes a distorted and false picture of the results (Northway, 1944; Grossmann and Wrighter, 1948; Muma, 1968;

Bloomer, 1969; Adinolfi, 1970).

Because of the unsystematic approach used in investigating the phenomena associated with sociometric data, to generalize from previous research to the present study and specifically to hypothesize direction of differences between sociometrically determined groups would be premature and invalid at the present time.

As a first step in attempting to resolve the preceding problems in sociometric research, the present study will incorporate the following:

1. Use of a pure sociometric questionnaire.
2. Adoption of what has been shown to be optimum differentiated grouping.
3. Partial standardization of procedures by using the same operational definition of groups as included in a previous related study.

Operational Definitions and Hypotheses

Operational Definitions

For the purposes of this study then, use will be made of Bloomer's (1969) operational definitions of the sociometric groups, as he, to date, has been the only one to include the high-ambivalent impact child separate from the high acceptance group. The operational definitions are as follows:

1. Accepted Child: the child accepted by at least 50% of his classmates and rejected by no more than 10% of his classmates.
2. Rejected Child: the child accepted by no more than 10% of his classmates and rejected by at least 50% of his classmates.
3. Isolated Child: the child accepted by no more than 10% of his

classmates and rejected by no more than 10% of his classmates.

4. High Ambivalent Impact Child: the child accepted by at least 40% of his classmates and rejected by at least 40% of his classmates.

5. Normal Child: the child not included in the first four categories.

Acceptance and rejection are to be determined by an administered sociometric questionnaire. If a definition borderline falls between two whole numbers, each of the numbers will be used to include the subjects in categories 1 to 4 i.e. if 10% of the classmates is 2.4 classmates then rejection by 3 classmates will not disqualify a student from the "accepted" category if the other criteria is satisfied as closely.

Hypotheses:

The following will constitute the six hypotheses relevant to this study.

1. Children in each of the five sociometrically determined cells will differ in the number of classmates accepted and in the number of classmates rejected.

2. Children in each of the five sociometrically determined cells will differ in their ability to predict their sociometric status in terms of both number of acceptances received and rejections received.

3. Children in each of the five sociometrically determined cells will differ with respect to place of residence (in town or out of town).

4. Children in each of the five sociometrically determined cells will differ with respect to sex.

5. Children in each of the five sociometrically determined cells will differ on each of Cattell's fourteen personality factors as determined by the Children's Personality Questionnaire (Cattell, 1963).

6. Patterns of relationships among sociometric, demographic and psychological variables monitored will arise..

CHAPTER III

PROCEDURE AND DESIGN

The Sample

The sample consisted of all grade three students in the Yellowhead School Division attending schools in Evansburg, Wildwood, Niton, Edson and Hinton, involving a total of 355 students. Grade three students in Peers School, Fulham School, Bryan School and Jacob Stahl School were not included in the sample, as they were members of a combined two grade classroom i.e. grades 3 and 4 in one classroom. The Sociometric measurement of those students would have been invalid with regard to the grade three population. Twenty-one students were absent from school at the time of the testing, and thus were excluded from doing the Children's Personality Questionnaire. They were however, included in the sociometric measurement.

All subjects were included who were shown to be members of the sociometric groups I to IV. Of the subjects shown to be members of the sociometric group V, 38 (equal to the largest of the other groups) were randomly selected for this study, using a table of random numbers in Edwards (1967).

Instruments Used

Two instruments were used in the present study. They included a sociometric questionnaire (with additional questions assessing the subject's area of residence and prediction-ability of sociometric status) and the Children's Personality Questionnaire (1963 edition) Form B,

including both B_1 and B_2.

The Sociometric Questionnaire[1]

Sociometry in General:

The term "preferential sociometry" is used when we want to refer specifically to the measurement of interhuman relations and inter-animal relations which can be described in terms of preferences ("attraction-neutrality-rejection in a choice situation") (Bjerstedt, 1956, p. 28). This definition was reached after consultation with noted authorities including U. Bronfenbrenner, R. B. Cattell, H. H. Jennings and J. L. Moreno (Bjerstedt, 1958).

The method of sociometric measurement used in the present study is described as the "Primary Sociometric Choice" method, with the following items of information included in the instrument (Bjerstedt, 1958):

1. Preference aspect: interaction setting (in this study, playing at recess).
2. Preference effect: practical outcomes if any, confidentiality of results (in this study, no outcomes given, secrecy emphasized).
3. Preference area: among what individuals (in this study, individuals within the classroom).
4. Preference sign: which end of the preference scale, positive or negative choices (in this study the sign was indicated by the underlined words, most and not to emphasize the sign).

---

[1] The copy of the sociometric questionnaire used in this study can be found in Appendix A.

5. Preference method: limited choice, or ranking (in this study, no limit to number of choices and no ranking desired).
6. Preference-motivation request: reasons for choice needed or not (in this study no reason asked for).

Sociometric instruments are composed of two major cells, sociometric and near-sociometric. The present study utilizes a sociometric instrument. Near-sociometric measures necessitate a value judgement from the subject, such as "Who would make the best leader, in your classroom?" or "Who is the most popular person in your class?" Pure sociometric measures involve no such judgements.

Validity

As Jennings (1943, p. 27) has said of the sociometric test, "it does not attempt to measure behavior of a certain type by eliciting related responses, but employs a sample of the actual behavior studied." In other words, choice behavior is what is being studied, and choice behavior is what is elicited by the test. Reference, then to an outside criterion has no meaning in the usual sense. An implicit assumption here though is that the subjects do not falsify their responses. Pepinsky (1949) suggests that to meet the question of whether the subjects' stated choices may be accepted as valid in the sense that they are subjectively honest, the testing situation should be set up in such a way as to maximize the rapport with the experimenter and the motivation of the subjects, a contention also put forth by Moreno (1953).

Validity of sociometric instruments become questionable when generalizations and inferences are attempted, such as attempting to discuss an individual's sociometric scores using words such as "cheerful" or "frustrated" (Pepinsky, 1949). Generalization beyond the

specific behavior sampled does necessitate reference to outside criteria or supportive data. An assumption implicit in the present study is of the kind that rejected children in school are from the same population as rejected children in other schools; the same applies to the other sociometric cells used. Although the validity of this assumption is not known, it is to be assumed valid for the purposes of this study.

Reliability

Pepinsky (1949) has stated that the traditionally used concept of reliability (split-half or test-retest) as used by psychologists seems to have little direct meaning or application to the field of sociometry. Reports of reliability in sociometric research have been on the basis of a test-retest correlation. Several studies using lapses of one to four days between testing reported correlations varying from .93 to .96 (Pepinsky, 1949, p. 45). After longer periods of time between testing sessions (8 months), the correlations were lower, .65 and .66 (Jennings, 1943). Blake, Mouton and Fruchter (1955) in reviewing a total of 53 studies bearing on the reliability of sociometric judgements reached the following conclusions:

1. The greater the interval between test and retest, the lower the correlation coefficient.
2. The older the subjects, the larger the correlation of test and retest results.
3. The longer the subjects have been acquainted before testing, the larger the correlation of test and retest results.
4. The more relevant the choice criteria is to the group, the greater the consistency of results.
5. It is possible for group members to make consistent judgements.

Interpretation of correlation coefficients (reliability figures) made in the traditional way is complicated. With sociometry, only the criterion of choice is held constant, while the behavior material (i.e. the interpersonal relationship), on the basis of which a choice is given, varies with each subject, and the subjects are expected to vary in their choices (Pepinsky, 1949). In other words, correlation fluctuations might legitimately be expected, reflecting behavior change rather than low reliability. With a sociometric instrument, "it is not possible to speak of test reliability independent of the influence of the stability of the choice behavior itself" (Pepinsky, 1949, p. 56).

The Children's Personality Questionnaire (CPQ)

In discussing the "CPQ" Cattell, et al, state that it

> . . . is firmly based on the personality sphere concept--a design to insure initial item coverage for all the behavior that commonly enters ratings and the dictionary descriptions of personality. Thus, it has not been built up only by factoring of questionnaire material, but is part of the general structuring research on personality in everyday life rating data, objective tests, etc. (1970, p. 6).

Further it is

> . . . based on a series of interlocking researches over twenty-five years, directed to locating unitary, independent, and pragmatically important "source traits;" both in ratings and questionnaires. By source traits, we mean factors (rotated to oblique simple structure) affecting large areas of the overt personality behavior, such as intelligence, emotional stability, superego strength, surgency, and dominance. (Cattell, Eber, and Tatsulka, 1970, p. 7).

The source traits that are measured by the CPQ are as follows:

1. Factor A - Sizothymia vs. Afectothymia
2. Factor B - Low Intelligence vs. High Intelligence
3. Factor C - Ego Weakness vs. Ego Strength
4. Factor D - Phlegmatic Temperament vs. Excitability.

5. Factor E - Submissiveness vs. Dominance

6. Factor F - Desurgency vs. Surgency

7. Factor G - Low Superego Strength vs. High Superego Strength

8. Factor H - Threctia vs. Parmia

9. Factor I - Harria vs. Premsia

10. Factor J - Zeppia vs. Coasthenia.

11. Factor N - Naivete vs. Shrewdness

12. Factor O - Untroubled Adequacy vs. Guilt Proneness

13. Factor Q_3 - Low Self-sentiment Integration vs. High Strength of Self-sentiment

14. Factor Q_4 - Low Ergic Tension vs. High Ergic Tension

Validity

Validity of the CPQ scales is interpreted as the correlation between observed and true scores, where factor trueness was estimated from a very thorough and comprehensive factor analysis. The direct concept (construct) validity coefficients on scales range from .72 to .94 (Form B).

Reliability

Test-retest reliability for the scales range from .54 to .89 with the majority of the scores in the .70 to .89 range (Form B).

The instructions for the CPQ were slightly revised for the purpose of this study, as the entire test was given orally (as per Manual directions for subjects of the age in this study) using answer sheets. A copy of the directions and answer sheet used will be found in Appendix B and C.

Procedure

The Sociometric Questionnaire (with the data request supplement)

and the Children's Personality Questionnaire Forms B_1 and B_2, were administered to the subjects as a group (a total classroom). Testing was completed in one session per class encompassing about 1 1/2 hours, during the second week of June, 1974. Two examiners administered the tests using a standard format.

During a short period before testing, the examiner engaged in random conversation with the students, to enhance examiner-subject rapport, and increase the motivation of the students to cooperate appropriately. Next, the students were told that the things they were about to write were very secret. No one but the examiner could see what was written. The students were to make sure no one saw or found out what they wrote. The sociometric questionnaire was systematically given, question by question, with an effort made to make sure all examinees understood the directions.

Next the examiner read the revised directions for the CPQ, working through the two sample questions with the students to ensure understanding. Subjects were then told that listening was important, and that all questions were to be given orally. Questions from the subjects as to word meaning were answered with the exception of the three-alternative questions. These questions were written on the blackboard, with no further queries answered.

The CPQ results for two subjects were discarded. One subject had to leave the school before completion of the questionnaire, and the other was found marking his answer sheet at random, working ahead of the appropriate question. These two members as well as all absent members, were asked to complete the sociometric questionnaire in order to ensure the valid sociometric placement of all other subjects. The personality

analysis of the absent subjects was excluded from the present study.

Analysis

Part I - Sociometric Placement of Subjects

Each classroom was treated as an isolated group, with tallies made of the total number of times each subject's name was listed as a choice and the number of times each was listed as a reject. Assignment of each subject was then made to a sociometric group, according to the definitions in Chapter II. Based upon the population tested and Bloomer's (1969) findings with an urban group, the expected sample size for categories one to four was n = 35 (10%). The sample distribution, however, was different, as illustrated in Table I below.

TABLE 1

POPULATION DISTRIBUTION PER SOCIOMETRIC CELL

Sociometric Cell	Expected (1) Nj (2)	Actual Nj	Expected %N (3)	Actual %N
Accepted	35	10	10%	2.8%
Rejected	35	38	10%	10.7%
Isolate	35	4	10%	1.1%
Ambivalent Impact	35	6	10%	1.7%
Average	213	297	60%	83.7%

(1) "Expected" figures based upon Bloomer's (1969) results.

(2) Nj refers to the number of subjects in the cell.

(3) N refers to population size (355).

Part II - Data Analysis

Raw scores for each of the factors of the CPQ were determined for each subject. In addition sociometric self-prediction-ability scores were determined for each subject. These scores were calculated as (a) discrepancy between predicted number of choices received and actual number of choices received, (b) discrepancy between predicted number of rejections received and actual number of rejections received, and (c) sum of the discrepant scores for both acceptance and rejection.

A one-way analysis of variance was run on the five groups, for each of the following variables:

1. number of classmates the subject rejected.
2. number of classmates the subject chose.
3. predicted rejections received.
4. predicted choices received.
5. number of rejections received.
6. number of choices received.
7. discrepancy between (3) and (5).
8. discrepancy between (4) and (6).
9. sum of discrepancies (7) and (8).
10. subject's place of residence (in town or out of town).
11. subject's sex.
12 - 25. Raw scores derived for each of the personality factors measured by the CPQ.

In addition, for each analysis of variance, the Sheffe Multiple Comparison of Means Test was used to determine inter-group differences of means. This analysis was made using the ANOV15 Program developed by the Division of Educational Research Services, at the University of

Alberta.

To test hypothesis six (Chapter II), a correlation matrix was run for variables 1 - 11 against variables 1 - 25. Probability figures for each correlation were run to determine which of the correlation figures were significant. This analysis was made using the DEST02 Program developed by the Division of Educational Research Services, at the University of Alberta.

For all analyses, the null hypothesis was rejected if $\alpha \leq .05$.

CHAPTER IV

FINDINGS AND CONCLUSIONS

For each hypothesis, the findings related to the hypothesis will be outlined, and a conclusion reached as to support or non-support of the hypothesis.

Hypothesis I

Children in each of the five sociometrically determined cells will differ in the number of classmates accepted and in the number of classmates rejected.

Findings

The hypothesis was tested using an analysis of variance for variables (1) and (2) (i.e. number of rejections and choices listed) across the five sociometric groups. No significant differences between groups were noted. The findings are summarized in Table 2, Table 3 and Table 4.

TABLE 2

MEANS AND STANDARD DEVIATIONS OF NUMBER OF CLASSMATES ACCEPTED AND REJECTED FOR THE FIVE GROUPS

GROUP	CLASSMATES REJECTED MEAN	S.D.	CLASSMATES ACCEPTED MEAN	S.D.
Accepted	7.10	3.11	7.80	3.01
Rejected	7.60	5.39	6.16	3.92
Isolate	6.00	6.68	6.00	3.26
Ambivalent-Impact	7.50	2.07	5.00	4.15
Average	8.71	4.84	6.67	3.74

TABLE 3

SUMMARY OF ANALYSIS OF VARIANCE OF

NUMBER OF CLASSMATES REJECTED FOR THE FIVE GROUPS

SOURCE	SS	MS	DF	F	P
Between	50.04	12.51	4	0.52	0.72
Within	2183.30	23.99	91		

TABLE 4

SUMMARY OF ANALYSIS OF VARIANCE OF

NUMBER OF CLASSMATES ACCEPTED FOR THE FIVE GROUPS

SOURCE	SS	MS	DF	F	P
Between	52.37	13.09	4	0.93	0.45
Within	1286.87	14.14	91		

Conclusion

Thus, confirmation of Hypothesis I was not obtained. The groups do not differ significantly in the number of classmates rejected and classmates accepted.

HYPOTHESIS II

Children in each of the five sociometrically determined cells will differ in their ability to predict their sociometric status in terms of both acceptances received and rejections received.

Findings

For each child, a prediction error score (difference between

predicted score and observed score) was calculated for rejection, acceptance, and combined (rejection error score + acceptance error score). The scores were used as indications of ability to predict sociometric status, where a lower score indicates a higher ability to accurately predict sociometric status. The mean estimate errors and standard deviations for each group appear in Table 5.

TABLE 5

THE MEANS AND STANDARD DEVIATIONS OF

SOCIOMETRIC STATUS ESTIMATE ERROR FOR THE FIVE GROUPS

GROUP	REJECTION		ACCEPTANCE		COMBINED	
	Estimate Error MEANS	S.D.	Estimate Error MEANS	S.D.	Estimate Error MEANS	S.D.
Accepted	6.40	4.09	5.00	2.11	11.40	5.72
Rejected	7.63	5.06	4.89	4.63	12.53	6.33
Isolate	12.00	2.94	4.25	2.98	16.25	4.11
Ambivalent-Impact	3.17	2.92	2.50	3.08	5.67	4.68
Average	6.49	3.61	4.08	3.77	9.39	5.49

An analysis of variance of the mean error of estimate of rejection, acceptance, and combined for all groups was performed to determine the significance of the observed differences. The summaries appear in Tables 6, 7, and 8.

TABLE 6

SUMMARY OF ANALYSIS OF VARIANCE OF MEAN ERROR OF ESTIMATE OF REJECTION FOR THE FIVE GROUPS

SOURCE	SS	MS	DF	F	P
Between	289.70	72.43	4	4.00	.005
Within	1648.29	18.11	91		

TABLE 7

SUMMARY OF ANALYSIS OF VARIANCE OF MEAN ERROR OF ESTIMATE OF ACCEPTANCE FOR THE FIVE GROUPS

SOURCE	SS	MS	DF	F	P
Between	38.56	9.64	4	.61	.65
Within	1434.59	15.76	91		

TABLE 8

SUMMARY OF ANALYSIS OF VARIANCE OF MEAN COMBINED ERROR OF ESTIMATE FOR THE FIVE GROUPS

SOURCE	SS	MS	DF	F	P
Between	467.91	116.98	4	3.49	.01
Within	3053.05	33.55	91		

As the F-ratio is significant for group differences beyond the 5 per cent level of significance for rejection estimate error and combined estimate error, for those variables the Sheffe Multiple

Comparison of Means test was used to examine the differences between all possible pairs of means.

For rejection estimate error, only the difference between the Isolate group and Ambivalent-Impact group (difference = 8.83) was significant ($p = .04$). For combined estimate error, no groups differed significantly. Differences were all beyond the 10 per cent level of significance.

Conclusion

The Isolate group demonstrated a lower awareness of their own sociometric status with regards to rejection, than the Ambivalent-Impact group. No differences between groups were demonstrated in acceptance estimate error or the combined estimate error. As a result, Hypothesis II must be rejected, although some support was demonstrated.

HYPOTHESIS III

Children in each of the five sociometrically determined cells will differ with respect to place of residence (in town or out of town).

Findings

For statistical reasons, the Isolate group was excluded from this statistical analysis. The entire group were from a rural residence. Therefore the variance was zero for the group with regards to the variable of place of residency. The mean and standard deviation for each group appears in Table 9.

TABLE 9

THE MEANS AND STANDARD DEVIATIONS OF PLACE OF RESIDENCE FOR THE FIVE GROUPS
(Residence in town = 1; Residence out of town = 2)

GROUP	MEAN	S.D.
Accepted	1.70	0.48
Rejected	1.37	0.49
Isolate	2.00	0.00
Ambivalent-Impact	1.33	0.52
Average	1.39	0.49

An analysis of variance of the mean place of residence for all groups except the Isolate was performed to determine the significance of the observed differences. The summary appears in Table 10.

TABLE 10

SUMMARY OF ANALYSIS OF VARIANCE OF MEAN PLACE OF RESIDENCE FOR THE FOUR GROUPS (ISOLATES EXCLUDED)

SOURCE	SS	MS	DF	F	P
Between	.96	.32	3	1.33	.05
Within	21.35	.24	89		

Conclusion

The sociometric groups (excluding the Isolate) do not differ significantly with respect to place of residence, rural or urban. Thus, Hypothesis III must be rejected.

HYPOTHESIS IV

Children in each of the five sociometrically determined cells will differ with respect to sex.

Findings

To facilitate statistical handling of the hypothesis, males were assigned a value of 1 and females a value of 2. The means and standard deviations for the five groups appear in Table 11.

TABLE 11

THE MEANS AND STANDARD DEVIATIONS OF THE VARIABLE SEX FOR THE FIVE GROUPS

GROUP	MEAN	S.D.
Accepted	1.40	0.27
Rejected	1.34	0.29
Isolate	1.50	0.33
Ambivalent-Impact	1.33	0.27
Average	1.58	0.27

An analysis of variance of the mean sex scores for all groups was performed to determine the significance of the observed differences. The summary appears in Table 12.

TABLE 12

SUMMARY OF ANALYSIS OF VARIANCE OF MEAN SEX FOR THE FIVE GROUPS

SOURCE	SS	MS	DF	F	P
Between	1.19	0.30	4	1.10	.36
Within	24.55	0.27	91		

Conclusion

There is no difference between groups as to sex of the subjects. Therefore Hypothesis IV must be rejected.

HYPOTHESIS V

Children in each of the five sociometrically determined cells will differ on each of Cattell's fourteen personality factors as determined by the Children's Personality Questionnaire.

Findings

Transforming of raw scores obtained on the CPQ into normed scores was deemed unnecessary, as no further information would be derived in doing so. As a result, the statistical analysis was performed on the raw scores for each factor. An analysis of variance was performed on the mean raw scores of each factor for all groups, to determine the significance of difference between the means. The results are summarized in Table 13.

TABLE 13

SUMMARY OF ANALYSIS OF VARIANCE OF RAW SCORES ON FACTORS (CPQ) FOR THE FIVE GROUPS

FACTOR	SOURCE	SS	MS	DF	F	P.
A	Between	21.66	5.41	4	2.13	.08
	Within	231.75	2.55	91		
B	Between	34.15	8.54	4	2.91	.03
	Within	266.76	2.93	91		
C	Between	35.38	8.84	4	3.52	.01
	Within	228.48	2.51	91		
D	Between	24.75	6.19	4	2.00	.10
	Within	280.91	3.09	91		
E	Between	35.13	8.78	4	3.15	.02
	Within	253.50	2.79	91		
F	Between	14.13	3.53	4	1.26	.29
	Within	255.85	2.81	91		
G	Between	15.89	3.97	4	1.19	.32
	Within	303.44	3.33	91		
H	Between	7.06	1.77	4	0.61	.65
	Within	261.93	2.88	91		
I	Between	11.18	2.80	4	0.99	.42
	Within	256.65	2.82	91		
J	Between	12.85	3.21	4	1.50	.21
	Within	194.31	2.14	91		
N	Between	13.80	3.45	4	1.04	.39
	Within	303.16	3.33	91		
O	Between	36.18	9.04	4	3.11	.02
	Within	264.45	2.91	91		
Q_3	Between	12.32	3.08	4	0.76	.56
	Within	370.17	4.07	91		
Q_4	Between	17.58	4.39	4	0.93	.45
	Within	428.05	4.70	91		

The F-ratio is significant for group raw score differences beyond the 5 per cent level of significance for factors B, C, E, and O. For each of these factors, the Scheffe Multiple Comparison of Means test was used to examine the difference between all possible pairs of means.

Although the F-ratio is significant for group differences beyond the .05 level for factors B, C, and O, a five per cent level of significance was not found for differences between any of the pairs of means.

However, for factor E, the Scheffe test revealed that the mean for highly accepted students (5.20) was significantly higher than the mean for the average students (3.21) at the 3 per cent level.

Conclusion

When each group mean was paired with all other group means, to determine mean differences for all the factors of the Children's Personality Questionnaire (a total of 140 possible differences), only one pair of means was found to be different at the five per cent level. Therefore, Hypothesis V must be rejected.

HYPOTHESIS VI

Patterns of relationships among sociometric, demographic and psychological variables monitored will arise.

Findings

Pearson product-moment correlation coefficients were derived from a correlation matrix constructed by pairing variables 1 - 11 with variables 1 - 25 (as described in Chapter III). The significance of the resulting correlation coefficients was determined using a t-test.

A summary of the results may be found in Table 14. (Raw score differences in the CPQ related to sex were expected, so those correlation coefficients were not examined).

In general the correlations are moderate. They range from ± .20 to ± .57, with the majority in the area of ± .20 to ± .30.

Summary of Correlational Findings

1. The number of classmates rejected is related to the number of rejections a subject expects to receive in return (.29).
2. Even greater is the relationship between the number of classmates a subject lists as choices, and the number of classmates he expects would choose him (.44). The number of classmates listed as choices by a subject is related to his scores on Factor A (affectothymia - good naturedness, readiness to cooperate, attentiveness toward people), Factor H (Parmia - adventurous, socially bold), and Factor I (Premsia - sensitive, dependent).
3. The number of rejections a subject expects is related to Factor D (excitability - impatient, demanding), and Factor Q_3 (low self-sentiment integration - casual, careless of social rules, follows own urges).
4. The number of times a subject expects to be listed as a choice by his classmates is related to a lower number of rejections actually received, actual choices received, Factor A (Affectothymia - good naturedness, readiness to cooperate, attentiveness toward people), Factor D (excitability - impatient, demanding), Factor G (high superego strength - conscientious, persevering, rule bound), Factor I (premsia -

TABLE 14

CORRELATION MATRIX ILLUSTRATING SIGNIFICANT *

INTERRELATIONSHIPS OF THE VARIABLES MONITORED

No.	VARIABLE Description	2	3	4	5	6	11	12	13	14	15	18	19	20	21	23	24	25
1	Classmates Rejected		.29															
2	Classmates Chosen			.44				.24					.22	.22				
3	Predicted Rejections										.22						-.19	
4	Predicted Choices				-.27	-.34		.25			-.28	.27		.22				-.21
5	Rejections Received					-.55	-.20	-.21	-.24									
6	Choices Received							.22										
7	Rejection Estimate Error					-.21	-.27	-.23										
8	Acceptance Estimate Error	.42		.57							-.24	-.26		.29			.23	
9	Combined Estimate Error			.30										.26				
10	Residence														.21	.21		

* ($\alpha \leq .05$)

sensitive, dependent), and Factor Q_4 (low ergic tension - relaxed, tranquil, unfrustrated).

5. The number of rejections a subject actually receives from his classmates is related to a lesser number of choices received, sex (boys received more rejections), Factor A (sizothymia - reserved, detached, critical, cool), and Factor B (low intelligence - concrete thinking, lower scholastic mental capacity).

6. The number of choices a subject actually receives from his classmates is related to Factor A (affectothymia - good naturedness, readiness to cooperate, attentiveness toward people).

7. The subject's error in predicting the number of rejections received from his classmates is related to a lower number of choices received, sex (boys were less accurate in rejection predictions), and Factor A (sizothymia - reserved, detached, cool, critical).

8. The subject's error in predicting the number of choices received from his classmates is related to the number of classmates listed as choices, the number of choices predicted (the higher the number of choices expected, the greater the error), Factor D (phlegmatic temperament - deliberate, inactive), Factor G (low superego strength - disregards rules, undependable, by-passes obligations), Factor I (premsia - sensitive, dependent, and Factor Q_3 (high strength of self-sentiment - controlled, socially precise, self-disciplined, compulsive).

9. The subject's summed error of estimate for rejection and

acceptance is related to the number of choices predicted, and Factor I (Premsia - sensitive, dependent).

10. The subject's place of residence is related to personality in that a subject from a rural residence would display traits of Coasthenia (Factor J - doubting, obstructive, individualistic, reflective, internally restraining) and Guilt Proneness (Factor O - apprehensive, worrying, depressive, troubled) more than would urban subjects.

Conclusion

Patterns of relationships between the variables monitored did arise. Therefore Hypothesis VI must be accepted.

CHAPTER V

DISCUSSION AND IMPLICATIONS

Discussion

Sociometric Distribution

In previous studies differentiating the rejected from the isolate, the subjects under scrutiny were from centres possessing large populations. The present study differs in that the schools from which the sample was drawn were situated in relatively small centres. That difference appears reflected in the distribution as to sociometric status of the subjects (See Table 1).

Incidence of highly accepted, isolated and high ambivalent-impact subjects seem particularly low. The only subjects belonging to an extreme group (extreme in the sense of non-average), were those highly rejected by their peers.

The low incidence of social isolation would suggest that in a small community, each member would take on a certain significance (status), and would find it very difficult to become "lost in the crowd." The problem of isolation of students within a classroom equivalent to those included in the present study, would then be of minimal proportions. However those students who do achieve isolation under such conditions would probably in turn demonstrate extremes of the characteristics usually found in social isolates.

There appears to be another condition indigenous to the smaller centres--a relative scarcity of social "stars." This would result in a low degree of loading on the rate of "being chosen,"

creating lower numbers of highly accepted and high ambivalent-impact students.

Therefore, schools in smaller communities would have a tendency toward possessing bi-modal sociometric distributions--acceptable and rejected. Students would either be "okay" or heavily disliked, rather than included in one of the five categories advocated by Bloomer (1969). This is not to say that there were not five different kinds of subjects included in the present study. A summary of the choices received and rejections received per group may be seen in Table 15.

TABLE 15

THE MEANS AND STANDARD DEVIATIONS OF RECEIVED CHOICES AND REJECTIONS FOR THE FIVE GROUPS

GROUP	REJECTIONS		CHOICES	
	MEAN	S.D.	MEAN	S.D.
Accepted	3.70	3.68	10.60	3.63
Rejected	15.50	4.43	2.55	2.77
Isolate	2.25	0.50	3.00	0.00
Ambivalent-Impact	9.83	3.55	10.17	3.06
Average	8.29	3.97	6.34	3.32

An analysis of variance was used to determine if the observed differences were significant. The F-ratios for rejections and choices were significant with the probability level less than .01 in each case. (The isolate group was excluded from the analysis of variance of the choices, as the group variance was zero). A Sheffe Multiple Comparison

of Means test was run to examine the differences between all possible pairs of means.

For rejections received, the rejected group received a significantly greater number than all other groups. The accepted group received fewer rejections than the rejected, or the average group. All other differences were not significant.

For choices received, the accepted group differed from both the rejected and the normal group; the rejected group differed from all other groups examined; the ambivalent-impact differed from the rejected and average groups; the normal group differed from all others examined.

In summary, although there appears to be a sociometric distribution resembling a bi-modal rather than penta-modal model as outlined by Bloomer (1969), the subjects as described and defined by Bloomer do exist in the population observed in the present study.

Non-communicated Acceptance and Rejection

An implicit assumption underlying Hypothesis I is that both rejection and acceptance of one subject on the part of another would be reciprocated. This postulate arose as a result of Moreno's statement that children of about age eight years are beginning dyadic formations, sometimes groups of greater number, on a more and more permanent basis. Such relationships would remain intact as long as the members found mutual satisfaction within the relationship. If one were to view rejection from another as a negative stimulus, and acceptance from another as a positive stimulus, then mutual acceptance and rejection would appear to be essential for friendship and non-friendship respectively. It thus would follow that high accepted subjects would

list more choices and highly rejected subjects would list more rejections (i.e. be more accepting and non-accepting respectively). Such a conclusion was reached by others mentioned in Chapter II (Leary, 1957).

In the present study, however, this conclusion was not possible. No significant differences were noted in the number of rejections and choices given by each group.

A possible explanation is that the rejections and choices given by the grade three students are not generally translated into behaviors. Rather, they remain covert, presenting vague and ill-defined stimuli when expressed in day-to-day interaction. Expressions of rejection through behaviors would take the form of avoidance of interaction with the rejected by the rejector--a rather subtle approach, rather than openly expressed negativism. Thus, overt rejection expressions, except in extreme cases, would be in a manner difficult to discriminate from neutrality. Expressions of choice as well would be shown in similar rather subtle ways, with the exception of established friendship groups, where more open expressions of affection are encountered.

Due to the ill-defined nature of expressing feelings toward others, the grade three subjects in the present study should be equally unaware of their social status. This was found to be true. Grade three children appear to have been influenced by the adult social processes which place somewhat of a taboo on open expression of feelings.

Grade three children have not had the experience of being able to pick up the many subtle communications common among adults, and in particular, to put meanings to them. Expressions of negative or positive feelings may not be decoded unless openly given and defined.

These two conditions, evidence of socially learned suppression of feelings, coupled with the child's insensitivity to subtle signs of feelings from others suggests that rejection or acceptance (measured sociometrically) may not be as serious and widespread a problem as initially believed. Rejection cannot have a deleterious effect, socially or psychologically, if not communicated.

Rejection expressed in behavioral terms--bullying, scapegoating or verbal taunts--however, cannot be dealt with minimally, as it is past the subtle stage, existing in a very real and open manner. Perhaps if dealt with while still covertly defined, rejection may not arise as a problem.

Characteristics Related to Acceptance and Rejection

In dealing with rejection as a problem, the present study attempted to isolate characteristics related to sociometric status. Personality study, as a way of delineating characteristics of sociometric groups, particularly groups of the same age as those in the present study, appears to be inappropriate. In only one of a possible one hundred and forty differences was a significance found. The highly accepted group was shown to have a greater degree of assertiveness, independence, aggressiveness, and dominance, than that possessed by the average group. This difference would suggest the highly accepted group does possess qualities of leadership not possessed by the average group. However, expected differences between the rejected, and the accepted groups did not arise.

Examination of the correlations between specific sociometric and demographic variables and some personality variables would suggest that that approach yields more information.

Rejection seems associated with being not accepted. The higher the rejection score, the lower the acceptance score. This would help explain a low incidence of ambivalent-impact subjects. It is difficult being generally popular while being generally unpopular.

Rejection seems to afflict grade three boys more than it does grade three girls. However, when viewed as a characteristic of sociometric groups, there was no sex difference between groups.

Another factor which did not show up as a difference between groups but is related to rejection, was intelligence. Low intelligence as measured by Factor B of the CPQ is related to rejection. Intelligence was a factor related to individual rejection but is not one found to be a delineating factor in showing sociometric group differences. This may explain some of the discrepant results of previous research in this area. Studies relating rejection to lower order intelligence--involving concrete thinking--would probably arrive at similar results, while studies relating intelligence to sociometric groups may or may not arrive at similar conclusions, depending of course upon the grouping procedures.

The only personality factor related to rejection was Factor A. Non-rewarding aspects of personality such as reserved, detached, critical and cool behaviors, would, if considered out of context, contribute to rejection of a subject. Such was the case.

Directly opposite characteristics--good naturedness, readiness to cooperate, and attentiveness toward people--were found to be, logically, related to being chosen more often.

In spite of the highly significant relationships just reviewed, one must keep in mind that each indicator of relationship was of a

moderate level. The variability of one factor is accounted for by another to the extent of .4 to 25 per cent, depending upon the relationship examined. Therefore this research procedure of analyzing the relationships seems inadequate. Indications only, are given. A different procedure is suggested.

Implications

Research Implications

In using the operationally defined groups, [illegible] sent study, a number of problems emerged. Particularly, [illegible] personality characteristics of the groups means [illegible] variables too general to reveal differential information as required. The variables characteristic of one group are not unrelated to other groups. Rather than univariate relationships being involved, multivariate relationships seem to arise. Both acceptance and rejection are considered in constructing sociometric groups. Both must be considered together when relating sociometric status to other variables. However, each considered independently also will add more information. So too a difference arises considering the other variables singly and grouped.

The correlations derived when the variables of this study were paired separately are relatively small. Each of the variables contributes to rejection and acceptance, albeit in a small way. What seems obvious is the question "What contribution will clusters of the variables make?" Therefore, a recommended approach to future research is to use a factor analytic method, to determine the relationship of the variable cluster to sociometric phenomena.

Another recommendation for further research is that systematic work be done, maintaining constancy of group definitions, subjects,

sociometric questionnaire, and assessment variables. In additon, as this study has brought out possible sociometric differences between small communities and large communities, grade three students and those of other grade levels, these differences deserve to be systematically investigated.

Educational Implications

A major conclusion reached in the present study is that acceptance-rejection phenomena is incredibly complex, related to no one major contributory factor. Further research, as just discussed, is needed before any major breakthrough is made in ways of assisting the socially handicapped child.

However, a series of implications for education have arisen. The grade three level appears to be the optimum time to help potentially rejected children. Rejection is in a "dormant-like" state, generally not immediately obvious. Therefore, most work with the rejected child, in an effort to assist his learning of social skills, need not be done under the pressure usually associated with "crises" work. Very little trauma seems to be associated with sociometrically determined rejection at that stage, characteristic of grade three students.

As the rejected child is more tied to concrete thinking than the average child, approaches to teaching social skills should be by way of demonstrable examples. In additon, the rejected child should be encouraged to participate in as many social functions as available to him, with appropriate coaching from an adult observer well acquainted with child development.

BIBLIOGRAPHY

BIBLIOGRAPHY

Adinolfi, A. A. "Characteristics of highly accepted, highly rejected, and relatively unknown university freshmen" Journal of Counselling Psychology, 1970, 17, 456 - 464.

Alexander, C. N. "Ordinal position and sociometric status" Sociometry, 1966, 29, 41 - 51.

Allport, G. W., and H. S. Odbert. "TRAIT-NAMES, a Psycholexical Study" Psychological Monographs, 1936, 47, 1 - 171.

Anderson, N. H. "Likeableness Ratings of 555 personality trait words" Journal of Personality and Social Psychology, 1968, 9, 272 - 279.

Armenstrout, J. A. "Sociometric classroom popularity and children's reports of parental child-rearing behaviors" Psychological Reports, 1972, 30, 261 - 262.

Austin, M. C. and G. C. Thompson. "Children's Friendships: a study of the bases on which children select and reject their best friends" Journal of Educational Psychology, 1948, 39, 101 - 116.

Barclay, L. K. and J. R. Barclay. "Measured indices of perceptual distortion and impulsivity as related to sociometric scores and teacher ratings" Psychology in the Schools, 1965, 2, 372 - 375.

Barclay, J. R. "Interest patterns associated with measures of social desirability" Personnel and Guidance Journal, 1966a, 46, 580 - 585.

Barclay, J. R. "Sociometry: Rationale and technique for effecting behavior change in the elementary school" Personnel and Guidance Journal, 1966b, 44, 1067 - 1076.

Bauer, N. J. "Differences in personality traits among most preferred and least preferred students in Grades 10, 11, and 12" Journal of Education Research, 1971, 65, 65 - 70.

Becker, M. G. and C. P. Loomis. "Measuring rural, urban and farm and non-farm cleavages in a rural consolidated school" Sociometry, 1948, 11, 246 - 261.

Bjerstedt, A. Interpretations of Sociometric Choice Status, Copenhagen: Lund, 1956.

Bjerstedt, A. "Definitions of Sociometry" Sociometry Monographs, No. 39, New York: Beacon House, 1958.

Bloomer, R. H. Reading Patterns of the rejected child: Reading Teacher, 1969, 22, 320 - 324.

Bonney, M. E. "Personality traits of socially successful and socially unsuccessful children" Journal of Educational Psychology, 1943, 34, 449 - 472.

Bonney, M. "Relationships between social success, family size and socio-economic home background, and intelligence among school children in grades 3 to 5" Sociometry, 1944, 7, 26 - 29.

Bonney, M. E., R. E. Hobbit, and A. H. Dreyer. "A study of some factors related to sociometric status in a men's dormitory" Sociometry, 1953, 16, 287 - 301.

Bonney, M. E. and J. Powell" Differences in social behavior between sociometrically high and sociometrically low children" Journal of Educational Research, 1953, 46, 481 - 495.

Borgatta, E. F. and R. F. Bales. "Sociometric status patterns and characteristics of interaction" Journal of Social Psychology, 1956, 43, 289 - 297.

Brozovich, R. "Characteristics associated with popularity among different racial and sociometric groups of children" Journal of Educational Research, 1970, 63, 441 - 444.

Cattell, R. B. Personality and Social Psychology, San Diego, Robert R. Knapp, 1964.

Cattell, R. B. and R. B. Porter. Handbook for the IPAT Children's Personality Questionnaire. Champaign Ill: Institute for Personality and Ability Testing, 1959.

Cattell, R. B. and R. B. Porter. Manual for the Children's Personality Questionnaire, Champaign, Ill: Institute for Personality and Ability Testing.

Davis, J. A. "Correlates of sociometric status among peers" Journal of Educational Research, 1957, 50, 561 - 569.

Davitz, J. "Social perception and sociometric choice of children" Journal of Abnormal and Social Psychology, 1946, 50, 173 - 176.

DeVault, M. V. "Classroom sociometric mutual pairs and residential proximity" Journal of Educational Research, 1957, 50, 605 - 610.

Edwards, A. L. Statistical Methods, New York: Holt, Rinehart, and Winston, 1967.

Ferguson, G. A. Statistical Analysis in Psychology and Education, New York: McGraw Hill, 1971.

Gray, S. W. "Masculinity - femininity in relation to anxiety and social acceptance" Child Development, 1957, 28, 203 - 214.

Gregory, C. "Child's inhumanity to child" PTA Magazine, 1967, 62, 22 - 24.

Gronlund, N. E. and L. Anderson. "Personality characteristics of social accepted, socially neglected, and socialy rejected Junior High School pupils" Educational Administration and Supervision, 1957, 43, 329 - 338.

Grossman, B. and J. Wrighter. "The relationship between selection-rejection and intelligence, social status, and personality amongst sixth grade children" Sociometry, 1948, 11, 346 - 355.

Guinouard, D. E. and J. F. Rychlak. "Personality correlates of sociometric popularity in elementary school children" Personnel and Guidance Journal, 1962, 40, 438 - 442.

Halpin, W. G., and G. M. Halpin, and D. L. Hartley. "The effects of classroom guidance programs on sociometric status of second grade pupils" Elementary School Guidance and Counselling, 1972, 6, 227 - 232.

Harper, D. G. "The reliability of measures of sociometric acceptance and rejection" Sociometry, 1968, 31, 219 - 27.

Hartrup, W. W., J. A. Glazer, and R. Charlesworth. "Peer reinforcement and sociometric status" Child Development, 1968, 38, 1017 - 1024.

Hill, K. T. "Relation of anxiety, defensiveness, and intelligence to sociometric status" Child Development, 1960, 41, 101 - 10

Jennings, H. H. Leadership and Isolation, New York: Longmans, Green and Co., 1950.

Kidd, J. W. "An analysis of social rejection in a college men's residence hall" Sociometry, 1951, 14, 226 - 234.

Kuehne, S. H., and A. M. Creekmore. "Relationships among social class, school position, and clothing of adolescents" Journal of Home Economics, October, 1971, 63, 555 - 556.

Lahaderne, H. M. and P. W. Jackson. "Withdrawal in the classroom: a note on some educational correlates of social desirability among school children" Journal of Educational Psychology, 1970, 61, 97 - 101.

Lanning, F. and Robbins. "The child nobody likes" The Instructor, August, 1972, 77, 215.

Larsen, K. S. "Dogmatism and sociometric status as determ... of interaction in a small group" Psychological Reports, 1971, 29, 449 - 450.

Leary, T. Interpersonal Diagnosis of Personality, New York: Ronald Press, 1957.

Lemann, T. B. and R. L. Solomon. "Group characteristics as revealed in sociometric patterns and personality ratings", Sociometry, 1952, 15, 7 - 90.

Lilly, M. S. "Improving social acceptance of low sociometric status, low achieving students" Exceptional Children, 1971, 37, 341 - 347.

Litrell, M. and J. B. Eicher. "Clothing opinions and the social acceptance process among adolescents" Adolescence, 1973, 8, 197 - 212.

Marshall, H. R. and B. R. McCandless. "Relationships between dependence on adults and social acceptance by peers" Child Development, 1957, 28, 413 - 419.

Mill, C. R. "Personality patterns of sociometrically selected and sociometrically rejected male college students" Sociometry, 1953, 16, 151 - 167.

Miller, R. V. "Social status and socioemphathic differences" Exceptional Children, 1956, 23, 114 - 119.

Moreno, J. L. Who Shall Survive? New York: Beacon House, 1953.

Moreno, J. L. (Ed.) Sociometry and the Science of Man. New York: Beacon House, 1956.

Mouton, J. S., R. R. Blake and B. Fruchter. "The Reliability of Sociometric Measures" in Moreno, J. L. (Ed.), The Sociometry Reader, Illinois: The Free Press, 1960.

Muma, J. R. "Peer evaluation and academic achievement in performance classes" Personnel and Guidance Journal, 1968, 47, 580 - 585.

Northway, M. "Outsiders: a study of the personality patterns of children least acceptable to their age mates" Sociometry, 1944, 7, 10 - 25.

Northway, M. L. and B. T. Wigdor. "Rorshach patterns related to the sociometric status of school children" Sociometry, 1947, 10, 186 - 199.

Northway, M. L. A Primer of Sociometry. Toronto: University of Toronto Press, 1952.

Palermo, D. S., A. Castenada, and B. McCandless. "The relationship of anxiety in children to performance in a complex learning task" Child Development, 1963, 34, 767 - 776.

Pe[illegible]sky, P. N. "The meaning of validity and reliability as applied to sociometric tests" Educational and Psychological Measurements, 1949, 9, 39 - 49.

Peterson, H. A. "Teacher and peer acceptance of four student behavioral types" California Journal of Educational Research, January, 1968, 19, 16 - 27.

Pulvino, C. and D. Meckelson. "Alienated feelings of normlessness and discrepant academic achievement" Journal of Educational Research, 1972, 65, 216 - 218.

Pulvino, C. J. and J. C. Hansen. "Relevance of 'needs' and 'press' to anxiety, alienation, and GPA" Journal of Experimental Education, 1973, 40, 70 - 75.

Richards, H. H. Psychological factors associated with the sociometric status of children attending a comprehensive school in Breconshire" British Journal of Educational Psychology, 1967, 37, 261 - 262.

Ring, K. D., Braginsky, and L. Levine. "Performance styles in interpersonal behavior: an experimental validation of typology" Journal of Experimental Social Psychology, 1967, 3, 140 - 159.

Scandrette, O. C. "Classroom choice status related to scores on components of the California Test of Personality" Journal of Educational Research, 1953, 47, 291 - 296.

Scarborough, A., E. Hindsman, and G. Hanna. "Anxiety level and performance in school subjects" Psychological Reports, 1961, 9, 425 - 430.

Schacter, S. "British order and sociometric choice" Journal of Abnormal and Social Psychology, 1964, 68, 453 - 456.

Seagoe, M. "Factors influencing the selection of associates" Journal of Educational Research, 1939, 27, 43 - 40.

Sheik, D. A. "Sociometric self-ranking and personality structure" Dissertation Abstracts International, 1972, 32, 6225 - 6226.

Simmons, J. L. "Some intercorrelations among alienated measures" Social Forces, 1966, 44, 370 - 372.

Stevens, D. O. "Reading difficulty and classroom acceptance" Reading Teacher, 1971, 25, 52 - 55.

Thombs, M. R. and J. J. Muro. "Group counselling and the sociometric status of second grade children" Elementary School Guidance and Counselling, 1973, 7, 194 - 197.

Thorpe, L. P., M. E. Whitson, J. Bacon, and G. S. Adams. Studying Social Relationships in the Classroom. Chicago: S.R.A., 1959.

Wallston, K. A. "Performance styles as a determinant of effectiveness on an information seeking task" Journal of Personality, 1972, 40, 211 - 225.

Wolpe, J. Psychotherapy by Reciprocal Inhibition, Stanford: Stanford University Press, 1958.

APPENDICES

APPENDIX A

SOCIOMETRIC QUESTIONNAIRE

DATA SHEET

Name _____

Imagine you are playing at recess:

Part A

Choose in your mind and write down the names of the boys and girls in your class with whom you would not want to play with at recess.

Part B

Choose in your mind and write down the names of the boys and girls in your class with whom you would like best to play with at recess.

How many students do you think put your name down in Part A? Write how many in the blank._____

How many students do you think put your name down in Part B? Write how many in the blank._____

You live in town. (write yes or no) _____
You live out of town. (write yes or no) _____

APPENDIX B

REVISED CPQ DIRECTIONS

WHAT YOU DO AND WHAT YOU THINK

PRINT YOUR NAME: FIRST _____ LAST _____

YOUR AGE _____ GRADE _____ BOY OR GIRL _____

SCHOOL NAME _____

LISTEN carefully to each sentence the teacher reads to you and mark an X on the O for the choice that fits you better. Some sentences will not have the words just the way you want them but mark an answer for each question the best way you can. You may ask for help if you don't know a word. Just raise your hand and the teacher will help you. Do not wait too long before answering a question. Mark it and wait for the next one. Most of the questions have two circles to choose from but other questions have three circles. Always listen to all the choices and pick just one of them for your answer.

SAMPLE QUESTIONS

Teacher reads: "You are in grade one (choice K), grade three (choice L) or grade five (choice M)."

Mark your answer:

	K	L	M
Sample I	O	O	O

Teacher reads: "When you wish to use the toilet in school, you use the boy's washroom (choice K) or the girl's washroom (choice L)."

Mark your answer:

	K	L	M
Sample II	O	O	O

APPENDIX C

ANSWER SHEET FOR CFQ

Answer Sheet Part B

1.	K	L		19.	K	L	M		37.	K	L		55.	K	L				
	O	O			O	O	O			O	O			O	O				
2.	K	L		20.	K	L			38.	K	L		56.	K	L				
	O	O			O	O				O	O			O	O				
3.	K	L		21.	K	L			39.	K	L		57.	K	L				
	O	O			O	O				O	O			O	O				
4.	K	L		22.	K	L			40.	K	L		58.	K	L				
	O	O			O	O				O	O			O	O				
5.	K	L		23.	K	L	M		41.	K	L		59.	K	L				
	O	O			O	O	O			O	O			O	O				
6.	K	L		24.	K	L			42.	K	L		60.	K	L				
	O	O			O	O				O	O			O	O				
7.	K	L		25.	K	L			43.	K	L		61.	K	L				
	O	O			O	O				O	O			O	O				
8.	K	L		26.	K	L			44.	K	L		62.	K	L				
	O	O			O	O				O	O			O	O				
9.	K	L		27.	K	L	M		45.	K	L		63.	K	L				
	O	O			O	O	O			O	O			O	O				
10.	K	L		28.	K	L			46.	K	L		64.	K	L				
	O	O			O	O				O	O			O	O				
11.	K	L	M	29.	K	L			47.	K	L		65.	K	L				
	O	O	O		O	O				O	O			O	O				
12.	K	L		30.	K	L			48.	K	L		66.	K	L				
	O	O			O	O				O	O			O	O				
13.	K	L		31.	K	L			49.	K	L		67.	K	L				
	O	O			O	O				O	O			O	O				
14.	K	L		32.	K	L			50.	K	L		68.	K	L				
	O	O			O	O				O	O			O	O				
15.	K	L	M	33.	K	L			51.	K	L		69.	K	L				
	O	O	O		O	O				O	O			O	O				
16.	K	L		34.	K	L			52.	K	L		70.	K	L				
	O	O			O	O				O	O			O	O				
17.	K	L		35.	K	L			53.	K	L								
	O	O			O	O				O	O								
18.	K	L		36.	K	L			54.	K	L								
	O	O			O	O				O	O								

A___ B___ C___ D___ E___ F___ G___ H___ I___ J___ N___ O___ Q_3___ Q_4___