THE RELATIONSHIP OF ACHIEVEMENT AND SOCIOMETRIC STATUS TO CLASSROOM BEHAVIORS OF GRADE TWO STUDENTS

LORRAINE ELIZABETH KEOUGH

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THE RELATIONSHIP OF ACHIEVEMENT AND SOCIOMETRIC STATUS TO CLASSROOM BEHAVIORS OF GRADE TWO STUDENTS

by

© Lorraine Elizabeth Keough, B.Sc., B.Ed.

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ABSTRACT

The purpose of this study was to investigate the relationship of academic achievement and sociometric status to classroom behaviors of grade two pupils.

Nine classrooms from schools in rural St. John's participated in the study, with four learning problem and four average achievers serving as target students in each classroom. Determination of achievement group resulted from teacher rankings on reading achievements. Sociometric status was assessed on two dimensions using the Ohio Social Acceptance Scale: social attraction - mean score given to all other classmates by a student; and social acceptance - mean score recieved from all other classmates by one pupil.

All target students were observed for thirty second intervals on a rotating basis using the Classroom Motivation Observation Scale.

Comparison of behaviors observed by achievement and sociometric status, using 2 and 3-way ANOVAS showed significant behavior differences for each of the variables observed in the study. Eight distinct student types emerged as a result of the combination of achievement, social acceptance, and social attraction group. These were: High attraction - low acceptance - average achievers, good quiet students who drew little teacher attention; - learning problem, who were typical trouble makers disrupting peers and teacher. High attraction - high acceptance - average achievers, popular students who worked with peers but used the teacher to maintain peer approval; - high attraction, high acceptance learning problem, quiet slow students, who although spending a lot of

time non-attending, were non-disruptive. Low attraction - low acceptance - average achievers, good students who worked well alone and with the teacher, but did not interact with peers. Low attraction, low acceptance, learning problem, active attention seekers who get the attention of the teacher by disruptive behaviors. Low attraction - high acceptance, average achievers, ideal students with high on-task teacher contacts and lower than average disruptive behaviors. Low attraction, high acceptance, learning problem, who disrupted peers in an effort to gain teacher attention.

The results of this study have several implications for classroom teaching. Different patterns of interactions were found for different teachers suggesting different amounts of tolerance for types of classroom behaviors exhibited by students. Finding supported recent research indicating average achieving students exhibited higher amounts of on-task behavior. Differences in peer directed behavior exhibited by the eight types of students in this study could serve as a means for teachers to understand peer relations in the classroom and help control disruptive behavior.

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CHAPTER 1

INTRODUCTION

Purpose of the Study

The major purpose of this study was to identify, through observation, actual classroom behaviors of grade two students. More specifically, the study focused on actual classroom behaviors of these students and how they varied with differences in achievement and sociometric status.

Thus, the major factors under consideration in this study were: (1) pupil classroom behaviors; (2) academic achievement; and (3) sociometric status.

Significance of the Study

One of the major concerns of education today and throughout this century has been the issue termed pupil time on task or pupil engagement. J. Smythe (1979), in a review of pupil engagement, stated that although this issue has recieved much attention, little comprehensive analysis has been carried out in the area to date. What he sees as necessary at this point in time are descriptive and observational studies of what is actually going on in classrooms. J. Carew (1979), in discussing perspectives on teaching, agreed with Smythe and stressed the need for teaching to adopt more varied approaches.

> In order to provide a balanced analysis of schools as a significant source of experiences in the lives of children, teachers and parents, many types of data need to be gathered and integrated. These include ... empirical data

> on what actually goes on within the classroom including observations of teacher and child behavior and the social structure in which these transactions are embedded. (p. 69).

Anyone who is at all familiar with the day to day activities of the classroom environment realizes the tremendous number of behavioral transactions ongoing at any one time. As a result, it is virtually impossible for teachers to keep track of all the behaviors of pupils and the number and kind of contacts they share with each pupil (Good and Brophy, 1973). According to Philip Jackson (1968) in his book Life in Classrooms, not all students are involved in the same activity at any given time. For example, some may be listening to the teacher while others may be interacting with peers. Since teachers cannot attend to all behaviors at once, they can only be partially aware of the degree to which students are engaged in legitimate classroom activities. Boydell (1975) in an observational study of British junior classrooms showed the differing kinds of pupil behaviors that occur. The students in the study spent one-third of their time away from their desks interacting with other pupils and more than one-half their time out of contact with everyone. Thus, pupil behavior is a complex and ever-changing activity.

Associated with differing behaviors of pupils are differing achivement levels. Eysenck (1972) reviewed studies related to academic achievement and conlcuded that high achieving students tended to interact more with peers and the teacher in general and could be referred to as extroverts, while low achieving pupils interacted less and could be termed introverts.

The peer group within the classroom is related to the achievement variable and the effect it has on behavior. Porterfield and Schlichting

(1961), in looking at the peer status of grade six pupils, concluded that academic achievement was positively related to peer status, no cause and effect was determined. Associated with low peer status were personality characteristics of anti-social behavior, talkativeness, and interference with group activities. Conversely, students high in peer status tended to be enthusiastic, displayed greater participation, and sought approval from peers and teachers.

The peer group is linked to achievement in another way as discussed by Suls and Sanders (1979). They believe the peer group increases in importance in primary school and concluded this is due to the fact that these children are able to determine their potential achievement by comparing their performance in the classroom with those of their peers.

From the literature, then, it is evident that pupil behavior is not an isolated event. It is linked closely with both academic achievement and sociometric status. The exact nature of this relationship is not well defined, however. In light of this, this study attempted to identify achievement and sociometric correlates of differing pupil behaviors within the classroom in the hope it would provide clues to educators about why these behaviors occur.

Definition of Terms

Definition of behavior categories:

On-Task: Any activity which pertains to the task or activity of immediate concern in the classroom.

Teacher-Directed Action: Any verbal or non-verbal action directed toward the teacher; including all interaction or attempts at interaction with the teacher.

Peer-Directed Action: Any verbal or non-verbal action directed toward a fellow student or group of students. This category includes all physical acts and verbal interactions or attempts to communicate with peers.

Attending: Any on-task behavior which cannot be coded as peer directed or teacher directed action. Eye or body orientation is directed toward the teacher or task, or the student is otherwise involved in the general ongoing classroom activity.

Non-Attending: The student's attention is directed away from the teacher or task and the student does not appear to be involved in ongoing activity.

Off-Task: Any teacher or pupil action which is not related to the task or activity of immediate concern in the classroom.

Disrupt: Any pupil behavior which elicits an off-task response from the teacher.

Distract: Any peer directed action which distracts a fellow student or group of students from on-task behavior, but which does not elicit an off-task response from the teacher.

Non-Disrupt: Any off-task, teacher action or non-attending behavior which does not elicit an off-task response.

Positive Action: Any teacher-directed action which, from the teacher's point of view is considered to be a desirable behavior on the part of the student.

Negative Action: Any teacher-directed action which, from the teacher's point of view is considered to be an undesirable behavior, but which does not elicit an off-task teacher response.

Pupil Initiated: A teacher directed action by a target student which occurs when that student is not specifically called upon or designated by the teacher.

Teacher Initiated: A teacher directed action is the target student which occurs when that student is not specifically called on or designated by the teacher.

Other definitions:

Learning Problem Student: A student who falls in the bottom twenty-five percent of the class population following ranking on reading achievement by the classroom teacher.

High Social Acceptance Students: Those students who received a mean social acceptance score greater than or equal to the mean for the entire sample. (2.6)

Low Social Acceptance Students: Those students who received a mean social acceptance score less than the mean for the entire sample. (2.6)

High Social Attraction Students: Those students who received a mean social attraction score greater than or equal to the mean for the entire sample. (2.65)

Low Social Attraction Students: Those students who received a mean social attraction score less than the mean for the entire sample. (2.65)

Sociometric Status: A measure of a students relationship with the peer group. This measure consists of the scores obtained on two independent dimensions: social acceptance and social attraction.

Average Achiever: A student who falls in the top seventy-five percent of the class population following ranking on reading achievement by the classroom teacher. In addition, those students the teacher did not perceive as having a learning problem.

Social Acceptance: The total rankings assigned to any one student on the Ohio Social Acceptance Scale by all other class members.

Social Attraction: The total of rankings assigned to all other class members on the Ohio Social Acceptance Scale by any one student.

Research Questions

A number of research questions have been formulated as a result of consideration of the relationship among the factors involved in this study: achievement, sociometric status and classroom behavior. These may be stated as follows:

Basic. Are different patterns of classroom behavior exhibited by students with learning problems than by average achieving students when the students are classified by sociometric status?

Secondary.

1. Do average and learning problem students exhibit significantly different types of classroom behavior?
2. Are different types of classroom behavior evident for high and low social acceptance students?
3. Are different types of classroom behavior evident for high and low social attraction students?
4. Are social attraction and social acceptance related dimensions of sociometric status?
5. Is there a significant interaction effect of social acceptance and

achievement on classroom behavior?

6. Is there a significant interaction effect of social attraction and achievement on classroom behavior?

Limitations of the Study

The present study was limited by a number of factors. Those directly affecting the study are outlined below.

1. The assumption has been made that the observed behaviors of the students over the three day period of observation was typical of behaviors during the school year. It is apparent from the rationale of this study that the nature of student behavior could itself change.
2. Students were not observed in activities outside the classroom.
3. The seating arrangments in the classroom were generally determined by the teacher and were no doubt determined in part by student behavior. Thus, the behaviors observed could possibly have been modulated through teacher control, although not through the interaction of the teacher with the students.
4. The study was conducted in grade two classrooms in the rural areas surrounding St. John's, Newfoundland.

CHAPTER 2

REVIEW OF RELATED LITERATURE

Socialization

The period of early childhood is the time when a child's social world expands rapidly. During this time, the child moves from a world limited to the family to neighbourhood playmates and eventually to nursery school or kindergarten (Peters and Willis, 1978). The greatest change in this expanding social world begins when the child starts school, and the amount of time spent with peers increases greatly (Strommen et al., 1977).

It is common fact, however, that some children adjust to this change better than others and learn to participate more effectively than others in social interactions. The beginning of school for many children brings feelings of doubt and fear while for others, joy and challenge (McCord, 1976).

In general, developmental psychologists agree that the socialization process which occurs during early school years depends upon the experiences that the child has had up to that time. The developmental theories of Piaget and Erikson concern progression through stages while Havinghurst has conceptualized developmental tasks to explain the process through which the growing child becomes socialized.

The definition of socialization may vary from theory to theory; however, in its broadest terms, Stephens and Evans (1973) refer to it as "... the process by which the child comes to fit in with the needs

and activities of the larger group." (p. 417). For the school age child, the immediate larger group is the class and teacher with which the child must learn to work and play effectively.

In a more specific sense, Goslin (1969) sees socialization as the process whereby:

> Individuals learn to play various social roles necessary for effective participation in the society; that is, how they acquire the knowledge, skills and dispositions that enable them to perform in accordance with the expectations of others as they move from position to position in the social order over time from infant to child to adult... (p. 6)

In general, the process of socialization refers to fitting in and learning to get along with others. No two children, however, behave and interact with others in identical ways. The question left open as a result is what factors affect how children come to interact differently in classroom settings.

Developmental Theories

R.J. Havinghurst. For Havinghurst, the process of socialization is seen as essentially "... a process of lifelong housebreaking." (Havinghurst and Neugarten, 1967, p. 126). He sees socialization not as a restrictive process, but rather as a positive building process. In discussing the constructive aspects of socialization he says:

> It produces growth, it encourages, nurtures, stimulates and motivates; it produces an infinite variety of desires and strivings in the individual; it leads to development and achievement of all kinds. (p. 127)

In this context socialization is a period of gradual development of the individual which, for Havinghurst, is in accordance with the values and norms of the social group to which he belongs. As a summary

to his view of the socialization process, he refers to it as "... both a molding and a creating process." (p. 127).

Havinghurst's developmental theory is based on the concept of developmental tasks which he sees as necessary for healthy growth in society. He defines a developmental task as:

> A task which arises at or about a certain period in the life of the individual, the successful achievement of which leads to happiness and success with later tasks, while failure leads to unhappiness in the individual, disapproval by the society and difficulty with later tasks. (1948, p. 42).

There are different developmental tasks for each period of life from infancy to old age. The schoolage child is in the period called Middle Childhood which includes the period from six to twelve years of age. This period of life is characterized by three great outward pushes or thrusts by the child. They are as follows:

1. The thrust of the child out of the home and into the peer group.
2. The physical thrust into the world of games and work.
3. The mental thrust into the world of adult concepts and logic.

Out of these three growth thrusts in a child, emerge the developmental tasks of the middle childhood years. One of these tasks is learning to get along with age mates which is really "... the process of learning a social personality or acquiring stimlus value." (p. 17).

In completion of this task, the child moves away from his family into the world of peers. During this time, Havinghurst sees the child as competing for the attention of the teacher whom he calls the 'mother

person'. To successfully carry out this task, the child makes a place for himself among his peers and learns to attain satisfaction from his social life with them. Difficulties with school subjects or behavior problems in class are seen as resulting from difficulty in achieving this developmental task. So, for Havinghurst, the primary and elementary school years are expected to help the child bridge the gap between the world of the child and the adult world (1967, p. 185).

E.H. Erikson. Erikson is a neo-Freudian psychologist who, while accepting Freud's stages of psychosexual development has proposed eight stages of psychosocial development which are "... predominant patterns of social interaction characteristic of different periods of life." (Strommen et al, 1977). Erikson's first five stages correspond to Freud's five ages of man. Unlike Freud, however, Erikson does not contend that personality is determined by five years of age. Erikson's theory involves a series of eight crises to be dealt with at different stages during an individual's life - extending beyond childhood into adulthood.

Erikson's theory of development is essentially one of socialization According to his theory:

> Individuals develop and move into subsequent phases as soon as they are biologically, psychologically and socially ready and such individual readiness is matched by societal readiness. Individuals not only develops, they are socialized. (Maier, 1978, p. 88).

Thus, development for Erikson involves interactional experiences between the child and the world around him. The successful resolution of a crisis provides the developing child with a characteristic of the integrated or socialized individual (Stephens and Evans, 1973, p. 421).

According to Erikson (1963), the process of socialization involves passing through the following series of stages:

i. Trust vs. Mistrust

ii. Autonomy vs. Shame and Doubt

iii. Initiative vs. Guilt

iv. Industry vs. Inferiority

v. Identity vs. Role Confusion

vi. Intimacy vs. Isolation

vii. Generativity vs. Stagnation

viii. Ego Identity vs. Despair

The early school years of a child correspond most closely to Erikson's fourth-stage - Industry vs. Inferiority. Industry results if the child develops effective work habits and skills important in later periods of life. If, however, experiences during the early school years are coloured by failure and disapproval, the child will hold a negative attitude about himself and see himself as inferior.

In terms of socialization, Erikson stresses the importance of this stage as being "... socially a most decisive stage; since industry involves doing things beside and with others." (p. 260). Although during this stage the child is still somewhat dependent upon his parents "...children begin to recognize that they must eventually break with their accustomed family life." (Maier, 1978, p. 108). It is during this time that the world of peers increases in importance to the child and comes to assume a position equally important as that of adults. The peer group provides the child with a means for evaluating

his own successes and failures.

Thus, according to Erikson, a child in the early elementary school years is searching for a sense of competence and coming to understand his limitations. His success in this task is largely determined by what goes on in school since it is there he is encouraged to strive for accomplishment with his peer group:

> This crisis will be influenced by his school experiences, by the tasks he encounters there, by his relations with classmates and his sustained efforts with the new authority figures in the school. (Stevens and Evans, 1973, p. 122).

J. Piaget. The cognitive-development theory of Piaget is essentially concerned with the thinking and reasoning process of development. For Piaget "... mature, intelligent behavior is the ability to reason and think critically on objective, abstract and hypothetical terms." (Evans and McCandless, 1978, p. 271).

One of the basic assumptions of Piagetian theory is that everything the child learns is acquired due to an interaction effect of the processes of maturation and experience. According to Piaget's theory, social development is an integral part of the overall cognitive development of the child:

> Thus, cognitive development is very much within the purview of socialization of the child. Society is in many ways what was once ascribed to instinct - a direction giver. Since the process of thinking always contains an interaction between an individual's ongoing mode of thinking and that which each individual encounters in the environment, individual and environment can only be viewed as a syncratic whole. (Maier, 1978, p. 27).

Piaget, (1967) hypothesized that all children of normal intelligience progress through at least three of the following four

stages of levels of cognitive development:

i. Sensorimotor Stage - 0 to 2 years

ii. Preoperational Stage - 1½ to 6-7 years

iii. Concrete Operational Stage - 6 to 12 years

iv. Formal Operational Stage - 12 to adulthood.

The order of these stages is always the same -a child must complete all the lower stages before proceeding to a higher one. The chronological age at which a child completes a stage may differ from child to child so that not all children of the same age are in the same stage.

During the primary and elementary school years, most children are in the concrete operations stage. Upon entrance to primary school, many children are still in the preoperational stage while some children in the latter elementary school grades may be using formal operations (Strommen et al, 1977).

During the concrete operations stage, most children undergo changes in egocentrism - which is "... the state of confusion of self and the external world." (Maier, 1978, p. 40). At the beginning of this stage, children are completely egocentric beings and do not realize that other points of view exist. With the beginning of school, however, egocentrism declines rapidly while interpersonal attributes such as empathy and communications skills increase. The primary school children become more able to recognize the views of others and also become more susceptible to influence by peers (Strommen et al, 1977).

According to Piaget, the developing child has to adapt to many changes with which he is faced. This is particularly true when a child

begins school. For Piaget, adaptation occurs through two simultaneous processes: assimilation and accommodation. Both of these processes occur simultaneously although one may predominate. Essentially the process of socialization in the school age child involves two things.

i. The assimilation of new events which the child can incorporate into his present way of thinking.

ii. The adjustment of the child by way of accommodation to the everyday events of the classroom situation and peer group.

The School in the Process of Socialization

In August, 1979, the Newfoundland Provincial Government Sub-Committee on Curriculum Reorganization presented a report to the Committee Planning the Implementation of Grade Twelve, in which they reviewed the Aims of Education in Newfoundland and the responsibility of the school for each aim. The committee catagorized each aim as either a primary, secondary or tertiary responsibility of the school. The primary responsibilities are regarded as "... those for which schools are established and for which schools must consequently provide leadership and supply a complete program." (p. 2).

Among the eight primary responsibilities of the school is included "Understanding one's place in society." (p. 3) which is interpreted by the report to mean "Personal Development" (p. 4). Although the report concedes that the school is not in a position to influence social attitudes as much as the family, it does recognize that social development of children is one of the main aims of education.

> The responsibility of the school is primarily for understanding and knowledge, including knowledge of the world society. The school could not be expected to influence attitudes, however, as much as the home and community do. (p. 3).

In a similar vein, Evans and McCandless (1978) say that although the school provides a common positive ground for socializing children it does not mean the school can substitute for parents in the social development of children. Instead they say:

> ... the purposes of schooling are planned and systematically broadened to leave less to chance the personal-social learnings that inevitably occur whenever children congregate in group settings. The schooling process thus compliments the role of the parents. (p. 156).

Historically, educators and researchers have focused their attentions upon academic gains without taking into account the social aspect of school life. Recently, however, more studies have been carried out emphasizing the social factor. Epstein and McPartland (1976), in a study of the importance of school satisfaction, found that for students this is generally determined by several factors including social well being with peers and teachers. As well, contrary to the school being the focus of the student's intellectual life, research pointed out the importance of the school as the focus of their social life.

Similarly, in a paper reviewing the selected effects of schooling, Adams et al (1978) say that despite the fact that progressive educational theory has recognized both cognitive and social effects of schooling, educational researchers emphasize the cognitive rather than social-emotional aspects. Despite this, however, they maintain "... learning experiences are not socially isolated events." (p. 256).

Thus, although developmental theory emphasizes the importance of social development in the early school grades, there is little empirical evidence tying in the academic aspect of education with the socialization process occurring during these years.

Research Findings

Classroom Behavior and Achievement. The recent development of a number of classroom observational techniques have resulted in educational researchers being able to code classroom behavior into very specific categories. As a result, it has become possible to identify student correlates of classroom behavior.

One such variable which has come to be linked with classroom behavior of students is that of academic achievement. Cobb (1972), in a study of fourth grade students, investigated the prediction of achievement from task and non-task oriented classroom behavior. His study was comprised of a correlational design using eight behavioral categories as predictors and arithmetic scores as criteria. He found significant positive relationships between achievement and four task oriented classroom behaviors including attending and talking to peers in a positive way. Several significant negative relationships were found for non-task oriented behaviors such as non-attending and looking around. Cobb concluded that the general pattern of findings suggested that more discrete behaviors provide stronger relationships than general categories.

Perkins (1965) identified achievers and non-achievers in grade five classrooms using grade point average, IQ and reading achievement.

Frequencies of behaviors in twelve behavior categories were used as dependent variables. He concluded that low achievers, when compared to average achievers, spent a significantly greater proportion of classroom time on non-academic work, working in another area or withdrawn from ongoing classroom activities. Achievers, on the other hand, spent significantly more time engaged in social, work-oriented interaction with peers than underachievers. No consistent sex typed behaviors were observed.

McKinney et al (1975) used a set of twelve composite categories of classroom behaviors to study their relationship to achievement. A composite achievement index was calculated for the ninety grade two students serving as subjects. The authors concluded that the child who is attentive in class and task oriented in his interactions with peers is more likely to succeed academically than the child who is distractible and passive in group activities. No significant male-female differences were found.

Soli and Devine (1976) attempted to identify behavioral correlates of high and low achievers. Children from grades three and four were observed in math and verbal skills classrooms and were given achievement ratings based on classroom math achievement and the Gates McGinitie Reading Test. Results showed both teacher directed and peer directed on-task behaviors related to high achievement. In general, non-attending classroom behavior was related to low achievment. One recommendation that emerged from this study was the need for smaller more homogeneous groups of children to be studied. This, they conclude, would aid in

a better understanding of the pattern of behavior related to academic achievement.

Lahaderne (1968) examined attentive and inattentive behavior in the classroom and its relationship to academic achievement. Results showed a significant positive relationship between attentive classroom behavior and achievement. Conversely, pupils who were inattentive were not apt to achieve academically. Although indicating a general pattern of classroom behavior, the categories used in this study were too broad to encompass the range of classroom behaviors in which students engage daily.

In summary then, it is clearly evident from the research reviewed that achievement and on-task classroom behavior are positively related. Low achievement appears to be linked to non-attending behavior. Also emerging from some of these studies was the finding that high achievers interacted on-task more with peers. The general concept of peer relations in the classroom relating to achievement was mentioned but not investigated. Off-task peer relations were given very little consideration in these studies. Further analysis of classroom behavior with peers as it relates to achievement is necessary.

Achievement and Peer Status. Within a classroom setting, different children have different experiences with their peers. Stevens (1971) attempted to determine if children with reading problems were as well accepted by their classmates as were children of average reading achievement. A social distance scale was administered to all participating grade four classes which included ninety remedial reading students. Results showed significant differences between ratings given remedial

readers by their classmates and ratings given to them by remedial readers. This indicates a significant relationship between remedial readers social acceptance by peers and social attraction to the group. Remedial readers were not well accepted by the group and the authors conclude the ratings they gave their classmates reflected they were aware of this. No signficant differences were found between ratings received by remedial reading males and females, however. Not included in this study were the differences between ratings given by males and females. An analysis of this kind would aid in understanding if differences exist in the way male and female remedial readers perceive their popularity.

McGinley and McGinley (1970) studied the sociometric choices of first grade children who differed in reading achievement. The results showed members of the top reading group to be of higher sociometric status than the middle and lower groups. That is, members of all three reading groups tended to choose significantly more members of the top reading group on a sociometric test. Thus, in this study, high reading achievement was significantly related to high sociometric status. Again, sex differences were not considered in this study.

Glick (1969) hypothesized two separate dimensions of sociometric status and their relationship to academic achievement in children in grades three to seven. The first dimension was social attraction which took into account a person's desire to belong to the group; that is his ratings of the group as a whole. Social acceptance on the other hand, reflected a person's acceptance by the group; that is ratings received by the group. The results showed a significant positive relationship

between social acceptance and achievement for both males and females. No signficant relationship was found however, between social attraction and achievement. Thus, an attraction to the peer group was not found to be related to achievement and no signficant interaction effect was found in this study. In light of this then, the important correlate of achievement, as far as sociometric status is concerned, seems to be the actual acceptance of a student by the classroom peer group.

In summary then, a high acceptance by the classroom peer group is significantly related to high achievement and low acceptance to low achievement.

Sociometric Status and Classroom Behavior. Little research to date has dealt specifically with differing classroom behaviors of high and low status children. There is, however, some research relating personality characteristics to status.

McMichael (1980) in a longitudinal study of elementary school boys found that low sociometric status was correlated with destructive, irritating and aggressive classroom behavior. In general, she concluded that rejection by peers in classrooms was related to anti-classroom behavior more so than reading achievement. However, no specific classroom behaviors were observed. The behavior of students was determined by teacher ratings alone.

Dobson (1976) measured interpersonal relationships of elementary school pupils. She concluded that high status pupils tended to relax more in the classroom and interact much more with peers. Conversely, low status pupils avoided interacting with others and were more comfortable in social settings. Here, again, specific classroom

behaviors were not observed.

In conclusion, there is evidence for a relationship between pupil behaviors and sociometric status. The general trend indicates negative behaviors in the classroom correspond with low sociometric status. There is, however a lack of data on observable classroom behaviors in the research. What is necessary in light of this is research linking specific classroom behaviors of pupils to differing sociometric status.

Summary. Research clearly indicates that a significant positive relationship exists between academic achievement and on-task classroom behaviors. High achievers spend a significantly greater amount of time engaging in on-task classroom behaviors than do low achievers.

Further related to high academic achievement, according to the research, are high levels of peer acceptance. More research is needed, however, to further investigate the patterns of peer acceptance among male and female students.

It seems logical to conclude, then, that peer status is indeed linked to classroom behavior. Research in this area to date is vague and very broad behavior descriptors are used. It is apparent, however, that a relationship exists but further clarification is needed.

CHAPTER 3

PROCEDURES

This study used a correlational procedure, and proceeded in the following steps: first, in each of nine classrooms, four children with learning problems and four children with average achievement were identified. The Ohio Social Acceptance Scale was administered. The children were observed in normal classroom situations for a total of fifteen hours of observation per classroom. Social acceptance and social attraction scores were computed for each of the children in the sample, who were then classified as being above or below average in each of the categories. The eight groups of students which resulted were then described in terms of their classroom behaviors.

The Sample

The population consisted of grade two students from schools in the outlying areas of St. John's, Newfoundland. From this population, four groups served as target schools. The target schools were, at the time this study was carried out, participating in a one year study of teaching carried out by the Institute for Educational Research and Development at Memorial University of Newfoundland.

The initial sample population consisted of seventy-two grade two students from the four participating schools. In all, nine classrooms were involved with eight students from each class serving as subjects. These students were chosen randomly according to the stratification described in the following paragraph.

Participating teachers ranked all their students according to reading achievement in their individual classrooms. From this ranking, two groups of students were identified.

1. Learning problem students, who were defined, for the purpose of this study, as being those students who were placed in the bottom twenty-five percent of their class on reading achievement by their classroom teacher.
2. Average achievers, who were defined as being those students who were placed in the top seventy-five percent of their class on teacher rankings.

In each target classroom, four students were randomly chosen from each of these two groups. This produced a total sample of seventy-two students. Two of the target students were omitted during the anlaysis of the data because they were absent from school for more than one-half the observation time. Thus, the sample remaining consisted of seventy students. These consisted of thirty-nine male and thirty-one female subjects.

The Instruments

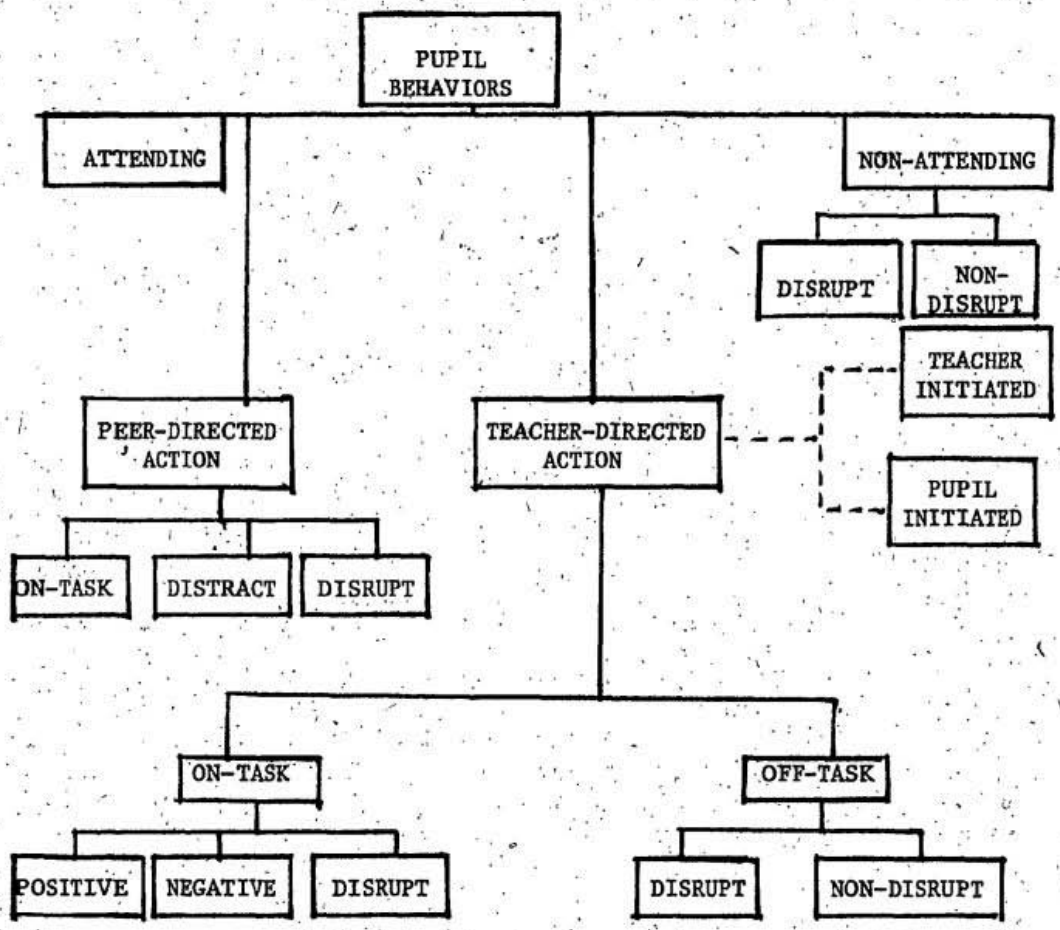
Classroom-Motivation Observation Scale. The research instrument used in this study was the Classroom-Motivation Scale (Glasgow and Spain, 1978). The scale, which was developed to aid in investigating the motivating influences in primary and elementary school classrooms, was used to code behaviors of target students and teachers by direct observation. The focus of the scale is "... on the interaction between teacher and child, with primary emphasis placed on the level of student needs being met within the classroom." (Glasgow and Spain, 1978).

The coding form was designed such that all classroom behaviors could be placed within a category on the coding sheet. To achieve a proficiency in coding behaviors appropriately, observers recieved sessions of practice coding daily for a period of one week using both written descriptions and videotaped exerpts of real classroom interactions. A trained observer supervised these practice sessions and discussed observers ratings with them.

On the scale, teacher and target studenn behaviors are observed during a thirty second period. The observer codes the most salient pupil and teacher behaviors during that time. The basis for the instrument is a model of teaching which assumes that the primary motivating function of the teacher is to engage the children in on-task behavior.

The pupil focus of the observation scale enables the estimation of the proportion of time the pupil is on-task, interacting with teachers and interacting with peers. The level of disruptive activity in several categories can also be estimated. In the case of interaction with the teacher, the relative levels of teacher and pupil initiation can be found. Figure 1 shows the organization of the toal of thirteen categories. Full definitions of each of the categories were given in chapter one.

Ohio Social Acceptance Scale. This scale is a brief, but effective, means of assessing children's social relations with their peers within the classroom setting. Its uses include identifying a social distance for each student within the group as well as permitting a student to accurately assess his own level of social acceptance by peers.



Major and Sub-Categories of Pupil Behavior

Figure 1

One of the major advantages of this type of scale is that no hierarchy of rating preferences is forced upon the rater. The construction of the scale prevents this.

The scale is comprised of a six point rating scale which corresponds to different degrees of social distance. Three of these degrees (1-3) correspond to acceptance, one to non-committment (4) and two to rejection (5 and 6). Each student in the class assigns a rating between one and six to every other class member depending on the amount of rejection or attraction he feels toward that individual. Mean levels of acceptance for each pupil can then be calculated.

Very little research has been carried out on the test recently concerning its reliability and validity. Lorber (1973), in a paper describing the usage of the scale, cites early studies by Raths (1947) concerning the test's reliability and validity. He concludes that "Enough evidence has been accumulated to warrent the inference that the test is indeed valuable." (p. 168). The successful use of this scale, according to Lorber (1973), attests to its adequacy, validity and reliability.

In this study, in addition to its use as a measure of social acceptance, the scale was also used as a measure of social attraction by calculating the mean rating given by a student to his classmates.

Observation Procedure

Each target classroom was visited by one of two female observers for a period of three successive school days during May, 1979. At the time of the observations neither of the observers was aware of the

rankings obtained by target students on reading achievement. Each target classroom was observed for fifteen hours yielding a total of one hundred thirty five hours of observation time.

Observers sat in a corner of the classroom and did not interact with either the teacher or the students. Each of the target students in a classroom was randomly assigned a code number between one and eight. The observer focused her attention on one student at a time in numerical order on a rotating basis.

A thirty second coding interval was employed with the observer's attention being focused initially on the target student for ten seconds when a judgement concerning the student's behavior category was made. Attention was then focused on the teacher for ten seconds. The remainder of the coding interval was spent checking the appropriate columns on the coding form. All observations were carried out while the students were in their homerooms. Observers did not accompany the students to out of classroom activities such as library, music and physical education.

Statistical Analysis

Statistical packages for the Social Sciences (Nie, et al, 1975) were used for the analysis of data.

Research questions 1, 2, and 3 were analyzed by means of 2-way analyses of variance and question 5 and 6 by three-way analyses of variance. Question 4 required a pearson product moment correlation.

Due to the possibility of type II error occuring in some of the behavior analyses, the .20 level of significance was considered in the

2 and 3-way analyses of variance.

As a result of the extremely low frequencies of behavior which occurred in the teacher-directed on-task disrupt category of behavior, this category was omitted from statistical analysis.

CHAPTER 4

ANALYSIS OF THE DATA

Research Question 1: Do average and learning problem students exhibit significantly different types of classroom behavior?

Table 1 presents the data comparing the classroom behavior of the two achievement groups.

A significant achievement group main effect was present at the .05 level of significance in two behavior categories; attending and non-attending non-disrupt. A significant achievement group main effect was present at the .20 level of significance in five categories; peer directed on-task, teacher directed on-task negative, teacher directed off-task disrupt, teacher directed initiated teacher, and non-attend disrupt.

Significant classroom main effects were found in the .05 level for all but two behavior categories.

Significant interaction effects of classroom and achievement were found at the .05 level for four behavior categories; peer directed on-task, teacher directed on-task positive, and teacher directed initiated teacher. Significant interaction effects at the .20 level of significance were found for three behavior categories; attending, teacher directed off-task non-disrupt and teacher directed pupil initiated.

Table 1

ANOVAS: Effects of Classroom and Achievement On Classroom Behavior

Variable	F Classroom	Achievement	Interaction
Attending	3.76*	5.01*	1.64**
Peer Directed On-Task	7.85*	3.50**	2.34*
Peer Directed Distract	7.73*	0.67	0.73
Peer Directed Disrupt	1.37	0.43	0.97
Teacher Directed On-Task Positive	4.95*	0.22	3.40*
Teacher Directed On-Task Negative	7.51*	2.45**	2.58*
Teacher Directed Off-Task Disrupt	2.20*	2.65**	0.74
Teacher Directed Off-Task Non-disrupt	12.00*	0.00	1.68**
Teacher Directed Initiated Pupil	4.75*	0.04	1.59**
Teacher Directed Initiated Teacher	8.68*	1.87**	3.26*
Non-Attend Disrupt	1.27	2.83**	0.59
Non-Attend Non-Disrupt	2.86*	7.78*	1.44

* $p \leq .05$
** $p \leq .20$

Research Question 2: Are different types of classroom behaviors evident for high and low social acceptance students?

Table 2 contains the data for social acceptance and classroom behavior.

A significant social acceptance main effect was evident at the .05 level for two behavior categories; teacher directed off-task disrupt and non-attend disrupt.

Research Question 3: Are different types of classroom behaviors evident for high and low social attraction students?

Table 3 contains the data for social attraction and classroom behavior.

A significant social attraction main effect was evident at the .05 level for one behavior category - teacher directed pupil initiated.

A significant social attraction main effect at the .20 level of significance was present for two categories of behavior; peer directed disrupt and teacher directed on-task positive.

Research Question 4: Are social acceptance and social attraction related dimensions of sociometric status?

The pearson product-moment correlation for social attraction and social acceptance was .0003, which was not significant.

Table 2

ANOVAS: Effects of Achievement and Social Acceptance on Classroom Behaviors

		Average Achievers		Learning Problem		F		
		High	Low	High	Low			
Variable		(N=17)	(N=18)	(N=18)	(N=17)	Achievement	Social Accept.	Interaction
Attending	X	76.27	78.73	74.53	71.91	3.32**	0.00	1.71**
	SD	11.08	8.04	9.30	10.66			
Peer Directed On-Task	X	3.65	4.12	3.15	2.69	1.31	0.00	0.30
	SD	3.80	4.11	2.66	3.37			
Peer Directed Distract	X	4.54	4.24	3.72	6.59	0.39	1.08	1.65**
	SD	3.99	4.12	3.59	7.91			
Peer Directed Disrupt	X	0.10	0.10	0.25	0.03	0.19	1.61	1.62
	SD	0.23	0.24	0.58	0.14			
Teacher Directed On-Task Positive	X	5.22	3.48	3.84	5.36	0.09	0.02	3.85*
	SD	5.07	2.98	2.56	2.80			
Teacher Directed On-Task Negative	X	0.58	0.36	0.46	0.96	1.22	0.42	2.82**
	SD	0.75	0.73	0.77	1.26			
Teacher Directed Off-Task Disrupt	X	0.07	0.35	0.31	0.62	3.10**	4.24*	0.00
	SD	0.19	0.56	0.53	0.91			
Teacher Directed Off-Task Non-Disrupt	X	1.28	1.34	1.23	1.39	0.00	0.07	0.01
	SD	1.81	1.53	1.52	2.16			
Teacher Directed Initiated Pupil	X	3.55	2.14	2.20	3.64	0.01	0.00	4.88*
	SD	3.75	1.90	2.06	2.73			
Teacher Directed Initiated Teacher	X	2.26	1.94	2.26	2.93	0.69	0.08	0.69
	SD	2.46	2.45	2.09	2.98			
Non-Attend Disrupt	X	0.00	0.11	0.07	0.25	2.84**	5.28*	0.32
	SD	0.00	0.26	0.21	0.42			
Non Attend Non Disrupt	X	8.07	7.10	12.61	10.35	5.49*	0.93	0.15
	SD	6.78	5.88	8.23	6.96			

* $p \leq .05$
** $p \leq .20$

Table 3

ANOVAS: Effects of Achievement and Social Attraction on Classroom Behaviors

Variable		Average Achievers: High Attrac. (N=17)	Average Achievers: Low Attrac. (N=18)	Learning Problem: High Attrac. (N=19)	Learning Problem: Low Attrac. (N=16)	F: Achievement	F: SOCIAL Attrac.	F: Interaction
Attending	X	77.30	77.75	73.12	73.43	3.22**	0.03	0.001
	SD	8.59	10.66	9.92	10.40			
Peer Directed On-Task	X	4.48	3.39	2.57	3.35	1.30	0.05	1.32
	SD	4.65	3.09	2.64	3.40			
Peer Directed Distract	X	4.12	4.64	5.95	4.13	0.28	0.27	0.87
	SD	3.88	4.20	7.14	4.80			
Peer Directed Disrupt	X	0.07	0.14	0.06	0.23	0.33	2.18**	0.44
	SD	0.19	0.26	0.18	0.61			
Teacher Directed On-Task Positive	X	3.49	5.11	3.95	5.23	0.16	3.23**	0.02
	SD	2.59	5.20	2.45	2.97			
Teacher Directed On-Task Negative	X	0.37	0.55	0.62	0.70	1.23	0.64	0.001
	SD	0.69	0.79	1.02	1.11			
Teacher Directed Off-Task Disrupt	X	0.24	0.19	0.51	0.40	2.60**	0.29	0.04
	SD	0.47	0.42	0.66	0.85			
Teacher Directed Off-Task Nondisrupt	X	1.53	1.11	1.02	1.65	0.001	0.06	1.55
	SD	1.97	1.29	1.52	2.15			
Teacher Directed Initiated Pupil	X	2.07	3.54	2.10	3.85	0.07	6.33*	0.05
	SD	1.94	3.65	1.86	2.83			
Teacher Directed Initiated Teacher	X	1.80	2.38	2.68	2.48	0.68	0.10	0.42
	SD	2.08	2.74	2.74	2.37			
Non Attend Disrupt	X	0.07	0.04	0.09	0.24	2.82**	0.94	1.84**
	SD	0.20	0.19	0.27	0.39			
Non Attend Non Disrupt	X	8.12	7.05	12.14	10.77	5.26*	0.52	0.01
	SD	6.73	5.93	8.21	7.02			

* $p \leq .05$
** $p \leq .20$

Research Question 5: Is there a significant interaction effect of social attraction and achievement on classroom behavior?

Table 3 contains the data for the interaction effect of social attraction and achievement on classroom behavior.

A significant interaction effect was evident at the .20 level of significance for the non-attend disrupt category of behavior.

Research Question 6: Is there a significant interaction effect of social acceptance and achievement on classroom behavior?

Table 2 contains the data for the interaction effect of social acceptance and achievement.

Significant interaction effects of social acceptance and achievement at the .05 level were found for two behavior categories; teacher directed on-task positive and teacher directed initiated pupil. Significant interaction effects at the .20 level were found for three behavior categories; attending, peer directed distract, and teacher directed on-task negative.

Basic Research Question: Are different patterns of classroom behavior exhibited by students with learning problems than by average achieving students when these students are classified by their sociometric status?

The analysis of this question is shown in Table 4 which reports the means and variances for the various pupil behaviors for each combination of achievement, social attraction, and social acceptance groupings. Only the values of F for the three-way interactions have

Table 4

Descriptive Statistics and ANOVAS; Effects of Social Acceptance, Social Attraction and Achievement to Classroom Behaviors

		Average Achievers				Learning Problem				F
		High Attraction		Low Attraction		High Attraction		Low Attraction		
Variable		High(N=7) Accept	Low(N=10) Accept	High(N=10) Accept	Low(N=8) Accept	High(N=11) Accept	Low(N=8) Accept	High(N=7) Accept	Low(N=9) Accept	3-Way Interactions
Attending	X	75.12	78.82	77.07	78.61	74.13	71.72	75.15	72.09	0.02
	SD	4.97	10.42	14.15	4.15	6.80	13.28	12.93	8.53	
Peer Directed	X	5.15	4.01	2.61	4.25	3.11	1.83	3.21	3.46	0.13
On-Task	SD	4.86	4.71	2.64	3.53	2.99	2.03	2.27	4.20	
Peer Directed	X	3.52	4.53	5.26	3.87	3.95	8.69	3.36	4.73	0.04
Distract	SD	3.63	4.19	4.25	4.28	3.55	9.91	3.92	5.54	
Peer Directed	X	0.08	0.06	0.12	0.16	0.05	0.07	0.54	0.0	3.82**
Disrupt	SD	0.21	0.19	0.25	0.29	0.17	0.20	0.86	0.0	
Teacher Directed	X	4.59	2.72	5.66	4.43	3.58	4.44	4.24	6.17	0.02
On-Task Positive	SD	2.47	2.49	6.41	3.42	2.40	2.60	2.94	2.86	
Teacher Directed	X	0.40	0.35	0.71	0.36	0.38	0.96	0.58	0.96	0.01
On-Task Negative	SD	0.55	0.80	0.87	0.69	0.75	1.29	0.85	1.31	
Teacher Directed	X	0.08	0.35	0.06	0.36	0.44	0.61	0.11	0.62	0.26
Off-Task Disrupt	SD	0.21	0.57	0.18	0.58	0.61	0.74	0.30	1.08	
Teacher Directed	X	1.96	1.23	0.81	1.49	1.08	0.94	1.46	1.79	0.28
Off-Task Nondisrupt	SD	2.31	1.75	1.28	1.29	1.24	1.93	1.97	2.38	
Teacher Directed	X	3.23	1.26	3.77	3.24	1.69	2.67	3.00	4.51	0.12
Initiated Pupil	SD	2.49	0.90	4.56	2.35	1.95	1.69	2.11	3.25	
Teacher Directed	X	1.78	1.80	2.60	2.10	2.45	3.00	1.97	2.88	0.12
Initiated Teacher	SD	1.69	2.41	2.93	2.65	2.44	3.25	1.50	2.91	
Non Attend Disrupt	X	0.00	0.12	0.0	0.10	0.00	0.22	0.18	0.29	0.13
	SD	0.00	0.25	0.0	0.28	0.00	0.40	0.31	0.46	
Non Attend Non	X	8.88	7.58	7.50	6.50	13.35	10.48	11.45	10.46	0.04
Disrupt	SD	6.60	7.12	7.20	4.26	8.42	8.16	8.44	6.19	

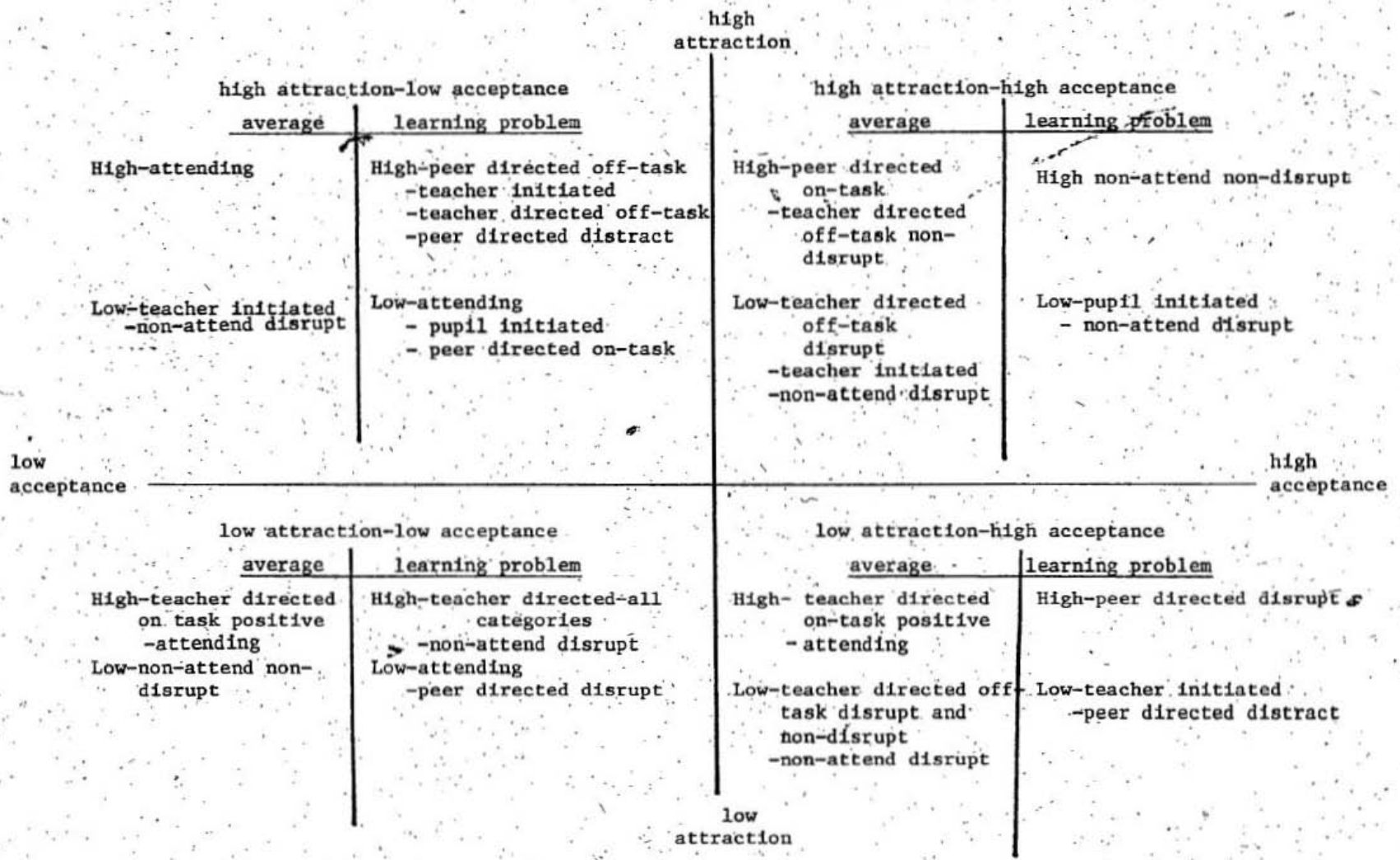
** $p \leq .20$

been reported. As can be seen, only one behavior, peer directed disrupt, had a statistically significant interaction effect.

A more subjective approach was taken to the analysis of this question. The cell means for each behavior were examined, and the cells showing relatively the most, and least, of the behaviors were identified. This resulted in eight behavior profiles which are shown in Figure 2. The procedure was considered to be justified on two grounds. First, since the study was a correlational design intended to develop theory, it was essential to minimize the risk of failing to observe true differences in behavior. Second, the small number of subjects in each of the cells made Type II error a very real possibility. The reader must bear in mind, therefore, that the findings which will be described below carry a significant risk of Type I error, and must, in the final analysis be justified in the degree to which a consistent and reasonable theory emerges to explain them. In the following paragraphs, each of the eight behavior profiles will be described.

High Attraction-Low Acceptance-Average Achievers: Higher than typical attending; their non-attending behavior brings less comment from the teacher than average, and their teacher interactions are lower than average. In other ways, these children behave typically. They initiate an average number of teacher interactions and engage in typical amounts of all types of peer interactions.

Learning Problem: Lower than typical attending, lower than typical pupil initiated contacts which are, however, higher than usual off-task. Interaction with peers off-task is higher, on-task is lower.



Behavior Profiles of Students Classified by Achievement, Social Attraction and Social Acceptance

Figure 2

There is a higher than usual teacher initiated interaction, suggesting a typical amount of on-task teacher interaction, but more than typical amounts of disruption due to the peer interactions of these students.

High Attraction-High Acceptance-Average Achievers: Higher than typical amounts of peer directed action which is on-task and average amounts of peer directed off-task behaviors. While they engage in high amounts of teacher directed off-task behavior which is non-disruptive, they exhibit few teacher directed off-task behaviors which yield an off-task teacher response. They exhibit lower than average non-attending behavior which is not acted upon by the teacher.

Learning Problem: Higher than average non-attending behavior which does not elicit an off-task response from the teacher but less than typical non-attending behavior which draws an off-task teacher response. Low amounts of pupil initiated teacher behavior directed toward the teacher. Typical amounts of teacher directed on and off-task behavior which the teacher initiates, as well as typical amounts of attending and all categories of peer directed behavior.

Low Attraction-Low Acceptance-Average Achievers: Higher than typical amounts of two categories of on-task behavior; attending and teacher directed positive. Lower than typical amounts of non-attending behavior which is non-disruptive. Typical amounts of all peer directed behavior as well as all teacher directed off-task behaviors are exhibited.

Learning Problem: Higher than typical amounts of all teacher directed behaviors both on and off-task; in addition, these students exhibit high amounts of non-attending behavior which draws off-task comments from the teacher. Their peer directed behavior brings less

comment from the teacher than average and they exhibit less than typical amounts of attending behavior.

Low Attraction-High Acceptance-Average Achievers: Higher than typical amounts of teacher directed action which is on-task but lower than average amounts of all teacher directed off-task behaviors. Lower than typical amounts of non-disruptive behavior which elicits negative teacher comments. Average amounts of all types of peer directed action and attending behaviors.

Learning Problem: Higher than typical peer directed behavior which yields off-task responses from the teacher but low amounts of peer-directed behavior which did not bring about teacher response. Lower than average teacher contacts which the teacher initiated but average amounts of all teacher directed and attending behaviors.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Classroom Differences. In the discussion of sociometric standing and classroom behaviors which follows, it must be remembered that important differences exist between classrooms in terms of the pupil behaviors that were observed. In fact, all but two of the behaviors which were observed were considered to vary significantly from classroom to classroom, suggesting wide variations in patterns of student and teacher-student behaviors. Inevitably these differences in behaviors must be associated to some degree with differences between teachers, their teaching styles, tolerance for noise and activity and the host of other factors which govern the way they behave.

Between classroom differences were found in each category of on-task behavior, in the proportion of teacher-pupil interaction which was initiated by the teacher and by the pupil, and in the amount of teacher directed disruptive behavior. While the amount of peer directed distracting behavior differed from classroom to classroom, the amount of peer directed and non-attending disruptive behaviors did not. The total pattern, then, suggests widely differing patterns of interaction between the pupils as well as between the pupils and teachers of different classrooms.

Classroom Behavior and Achievement. This study confirmed the outcomes of several other studies in finding differences in the behaviors of low achieving and higher achieving students. In this study, achieving

students exhibited more attending behavior, confirming Cobb (1972), Soli and Devine (1975), and Lahaderne (1968).

In this study, the average achieving students had relatively more on-task interactions with peers than did students with learning problems. Similar findings have been reported by Perkins (1965), McKinney, et al (1975) and Soli and Devine (1976).

Soli and Devine (1976) found that achievement was related to the amount of on-task interaction with the teacher. In this study, there was no difference in the amount of positive on-task interaction with the teacher; however, the children with learning problems did experience more negative on-task interaction with the teacher. In addition, the children with learning problems had more disruptive off-task teacher interactions, and more of their teacher interactions were initiated by the teacher.

The general pattern of interaction, then, showed average achieving students interacting somewhat more with peers on-task, with the off-task peer interaction of the two groups being about the same. The learning problem students interacted somewhat more with the teacher. The teacher initiated more of the interactions with them, and the additional amount of interaction tended to be negative or disruptive in nature. It must be remembered that a disruptive teacher interaction was not necessarily a negative experience for the children.

The variations between classrooms with respect to the behaviors of the two achievement groups was significant. While general differences between the behaviors of the two achievement groups were found, it was

apparent that the general pattern of behaviors would vary significantly from classroom to classroom. In particular, it was interesting that it was the nature of the on-task behavior that showed the greatest variation. The relative levels of most types of off-task behaviors, with the exception of non-disruptive teacher directed behavior were consistent in all classrooms. Teachers seemed to vary most, then, in the relative levels of on-task interactions that the two groups of students were permitted to have. There were significant differences across classrooms between the average and learning problem students in the pattern of initiation of teacher interaction and in the levels of positive or negative on-task teacher interaction which took place.

Social Acceptance and Social Attraction. The relationship of social acceptance and social attraction was of great interest. The finding that the two factors were independent confirmed the findings of the earlier studies, and again suggested the possibility of four sociometric categories based on the relative levels of social acceptance and social attraction. Most importantly, it suggested that for some students, those with high attraction scores, the peer group comprised a group of "significant others" through which they hoped to satisfy needs. For those with low attraction scores, the signficant others were not so much the pupils in the classroom as they were the teacher or someone outside the classroom. It can be hypothesized that the pupils in the classroom were prepared to support students with high acceptance scores, and less prepared to support those with low acceptance scores.

The behavior of the pupils within each category would be consistent with the nature of support sought by the students and offered by the classmates. Certainly it was expected that the behavior of students who both sought and received support from classmates would be different from the behavior of those who sought such support and received less. Of real interest was the behavior of those who sought peer support but did not receive it compared to those who received support even though they did not wish it.

Finally, because of the relationships of pupil behavior and achievement which were observed, the pattern of behavior of the average and learning problem students were expected to be different in the different sociometric categories.

The Interaction of Sociometric Status and Achievement. The findings of this study confirmed the findings of many earlier studies. Students with low social acceptance scores did tend to exhibit more disruptive types of behavior, either non-attending, or teacher disrupt, confirming McMichael (1980). Importantly, the low acceptance students did not initiate more interaction with the teacher.

A contrast of the behaviors of the low and high attraction students was also important. The low attraction students initiated more interaction with the teacher, tended to engage in somewhat more disruptive behavior with peers, and had higher levels of positive, on-task interaction with the teacher. Among the learning problem group, the high attraction students engaged in higher levels of peer distracting behavior, although the difference was not statistically significant.

These general differences observed in the behaviors of the high and low social acceptance students, and the high and low attraction students were perfectly consistent with the hypotheses which have been suggested about the influence of social acceptance and social attraction on classroom behaviors. This consistency promoted confidence in the next step of the anlaysis. Because the wide variation between classrooms in the student behaviors of pupils was a confounding factor in the anlaysis, it was decided to focus on the mean levels of each behavior, thus disregarding statistical findings because of the distinct possibility of type II error. This was felt to be permissible because of the basically exploratory nature of the study. The test of the conclusions would be in their theoretical consistency, leading to testable hypotheses. With this in mind, the discussion now turns to the interaction of achievement and sociometric status.

Eight possible categories of students were possible, based on the levels of achievement, social acceptance and social attraction. Examples of each category were found in the data.

<u>High Attraction-Low Acceptance</u>. The average achieving students within this category exhibited high levels of attending behavior but low levels of interaction with the teacher, both teacher and pupil initiated. The pattern of behavior suggests that the pupils behaved so as to escape the notice of the teacher. This was shown by the relatively small amount of teacher directed on-task behavior. Teacher response to this child was more likely to be in the off-task disrupt category than the on-task category.

The behavior of the learning problem students within this category was characterized by both teacher and peer directed off-task actions. These students also showed low attending and low peer directed on-task which points to a pattern of teacher harrassment yielding negative feedback from the teacher in an attempt to gain peer acceptance. The characterization which emerges is that of the typical classroom trouble-maker who, because of this, is rejected by his peers.

High Attraction-High Acceptance. High levels of on-task interactions with peers and off-task non-disruptive teacher interactions were displayed by average achieving students within this category. There were low levels of all disruptive types of behaviors and the teacher did not initiate as much interaction with these pupils as with the others. Overall, this is the picture of students who avoids interacting with the teacher but who exploits the teacher to enhance their peer status. This type of behavior was, however, tolerated by the teacher and not commented upon. These students did not engage in disruptive behaviors which would lower their peer status.

The learning problem children within this group were characterized primarily by their non-attending behavior. Their non-attending behavior did not attract off-task responses from the teacher, however, and they initiated few contacts with the teacher. In other ways, the classroom behaviors and interactions of these students were quite typical. They engaged in typical levels of peer interaction, but avoided interaction with the teacher. Their lower achievement can be associated with the higher level of non-attending, which, in the case of these students, is tolerated by the teacher.

Low Attraction-Low Acceptance. The average achieving students within this category engaged in high amounts of attending and teacher directed on-task positive behavior which was promoted by the teacher. These students did not actively seek peer support and engaged in relatively low amounts of peer directed behavior which was distracting. The achievement of these students occurred because they spent more time on task. In additon to benefit of the on-task involvement, they may also have been the beneficiary of higher teacher expectancies.

The learning problem students within this category were active attention seekers who engaged in large amounts of all teacher directed behaviors and non-attending behavior which drew negative teacher responses. The children craved teacher attention and spent less time attending, possibly because it tended not to yield any teacher response. There was low peer disruption which, in view of their low acceptance, suggested that other students did not wish to interact with them.

Low-Attraction-High Acceptance. The average achieving students within this category can be termed "ideal students" who displayed lower than average disruptive behavior. They exhibited high amounts of teacher directed on-task positive behaviors. All teacher contacts were usually on-task in nature suggesting the child was held as a model by the teacher. The somewhat high levels of peer directed distract behavior could have been a result of high levels of initiation by other students. This would be expected because of the high acceptance of these students but their low attraction.

The high amount of disruptive peer directed behavior exhibited by the learning problem students within this group was tolerated by the

peer group because they were highly accepted by them. However, low attraction to the group led to extremely low levels of distracting peer directed behavior. This pattern of behavior points to a type of student who wants teacher attention and is willing to exploit the peer group through disruptive behaviors to attain this.

Recommendations

The purpose of this study was to examine the relationship of classroom behavior with achievement and sociometric status. A strong relationship was found between achievement and classroom behavior which was in support of the literature reviewed. Further review of the literature, however, indicates that there are differences in seating of high and low achievers which may also have an effect on behavior. Brophy and Good (1970) and Rist (1970) found low achievers tended to be seated near the back of the classroom and away from the teacher. This, no doubt, would have had an effect on the behavior of the students and on their sociometric status. An understanding of this relationship would aid teachers in seating students to enhance their on-task behavior within the classroom.

The results of this study showed all students engaged in a baseline amount of peer directed behavior. Even students who were low in social attraction engaged in the baseline level. In this study, the initiator of peer directed behavior was not determined. An understanding of whether it was a low or high social attraction student who initiated the behavior would aid in developing a more accurate behavior profile of the students. It suggests the hypothesis that high attraction students

would initiate more peer directed behavior, and that it would, in general, be directed more toward the high acceptance students. This information, together with information on seating could be useful in helping teachers control and alter disruptive behaviors, and influence the social acceptance and attraction of their pupils.

Schmuck (1963), in a study of personality characteristics and classroom behavior found that students who held negative perceptions of their popularity manifested negative attitudes toward self. In light of this, there is a possible relationship between social attraction, acceptance and self concept and self esteem. It may be hypothesized that self esteem and social acceptance are related in high social attraction students, but not in low attraction students. Research needs to be done to verify this hypothesis, and to discover more precisely what characteristics of children are associated with social acceptance in the various achievement and attraction categories. This information could lead to prescriptive techniques for improving the self-esteem of some children by altering their sociometric status.

The results of this study showed that distinctly different classroom behaviors were evident for students differing in sociometric status. There were, however, high attraction, low acceptance students who exhibited low amounts of teacher and peer directed behavior. Thus, this indicates that the child is not obtaining need satisfaction from his schoolmates and teacher. The developmental theory of Havinghurst, discussed earlier, says early school years are a time when the child must move out of the home and away from the mother as a significant other and into the world of school and peers. These children who are not

interacting in the classroom may not be making the transition away from the home into the peer group successfully. According to Havinghurst, this transition is necessary before the child can efficiently engage in the world of schoolwork. In light of this, it would be beneficial to investigate the source of need satisfaction, the significant other of children in the primary grades. An understanding of how primary school children differ in this respect would aid the teacher in helping them to develop more positive sociometric status, perhaps with a positive influence on achievement.

The differences between classrooms which showed in this study point to different teacher styles within the classroom. Significant classroom main effects were found for two categories of peer directed behavior indicating different teachers possessed different levels of tolerance for this behavior. This, no doubt, would have an effect on the sociometric levels within the classroom. An investigation of teacher tolerance for different peer directed and off-task behaviors could possibly lead to a better understanding of the sociometric status of pupils and how this affects their behavior.

Further research into teacher behavior has shown that teachers do not treat all students the same. One variable that has been shown to be related to this differential treatment is academic achievement. Wright and Nuthall (1970) showed that the kinds of questions asked, length of time given to respond and the usage of thanks and praise was related to achievement. Havinghurst (1948) sees the children in the classroom as competing for the attention of the "mother person",

the teacher. According to this view, preferential treatment of some students may affect their sociometric status and in particular their social acceptance. More information is needed about teacher behaviors which are associated with sociometric status. This would help show teachers the effect they have on the sociometric structure in the classroom so they could use it to their best advantage.

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