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Cognitive and affective consultation with teachers: effect on interaction and self-concept

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Cognitive and affective consultation with teachers: Effect on interaction and self-concept

by

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INTRODUCTION

Focus

In recent years a number of concerned persons[1] have written at length about current practices in public school education in the United States. Their concern has been the emphasis upon the cognitive development of children which they perceive as limiting the development of the whole child. Other persons[2] have approached the concern for children in the public schools through advocacy of a process referred to as humanizing the classroom wherein the adapting of the

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[1]Some samples include:

Friedenberg, Edgar A. Coming of Age in America. New York: Random House, 1967.

Goodman, Paul. Compulsory Mis-education and The Community of Scholars. New York: Random House, 1966.

Holt, John. How Children Fail. New York: Pitman Publishing Corporation, 1964.

Kozol, Jonathan. Death at an Early Age. Boston: Houghton Mifflin, 1967.

Postman, Neil and Weingartner, Charles. Teaching as a Subversive Activity. New York: Delacorte Press, 1969.

Siberman, Charles E. Crisis in the Classroom. New York: Random House, 1970.

[2]Some samples include:

Lyon, Harold C., Jr. Learning to Feel--Feeling to Learn. Columbus, Ohio: Charles E. Merrill Publishing Company, 1971.

Moustakas, Clark. Personal Growth. Cambridge, Mass.: Howard A. Doyle, Publishing Company, 1971.

Rubin, Louis J., Ed. Life Skills in School and Society. Washington, D.C.: Association for Supervision and Curriculum Development, NEA, 1969.

Sharp, Billy B. Learning: The Rhythm of Risk. Rosemont, Illinois: Combined Motivation Education Systems, Inc., 1971.

Weinstein, Gerald and Fantini, Mario D., Eds. Toward Humanistic Education. New York: Praeger Publishers, 1970.

school program attempts to take into consideration the affective and psychomotor needs of each child along with his cognitive development.

This investigation is concerned with the enhancement of learning opportunities for children. The study focuses on methods of assisting teachers through group experiences or what could be termed in-service opportunities. That the children with whom the teachers come in contact will benefit from this exposure to group or in-service experiences is assumed. Thus the general problem is to examine the efficacy of various group experiences upon elementary school children and teachers.

Need

When one examines the state of a culture, he considers the social and technological aspects of that culture. Postman and Weingartner (1969, xi) identify some of the social problem plaguing Americans today as: (a) the number one health problem of mental illness, which accounts for more illness than all other forms of illness combined; (b) the crime problem, which ranges from affluent adolescents to frauds exposed in some of our richest corporations; (c) the suicide problem, which is the second most common cause of death among adolescents; and (d) infant mortality, which has as its most frequent cause parental beating.

Weinberg (1972) suggests that such social problems may stem from "depersonalized institutional living" [p. 99] which he considers

to be nourished by our industrial progress, our meaningless affluence, our job conditions where men are only roles, and our schools where students are regarded as products.

Awareness of these factors can be overwhelming unless one believes in the improvability of human condition through education. While education is not confined to formal schooling, school is the one institution in our society experienced by everyone and what happens in school makes a difference--for good or ill (Postman and Weingartner, 1969).

Criticism of current school practices include those which focus on what does not take place in the classroom. "Change--constant, accelerating, ubiquitous--is the most striking characteristic of the world we live in and our educational system has not recognized this fact" (Postman and Weingartner, 1969). Manolakes (1965) observed:

> With few exceptions, the elementary school of today . . . continued to be organized primarily for the teaching of subjects . . . Many goals of the elementary school that reflect concerns for children have been regarded as pious platitudes and have been supported only as far as the teaching of subjects permits.

The question arises, "What is relevant in public school education?"

> . . . there is no more important function for education to fulfill than that of helping us to recognize the world we actually live in, and simultaneously, of helping us to master the concepts that will increase our ability to cope with it. This is the essential criterion of judging the relevance of all education. [p. 3]

In Future Shock Alvin Toffler (1970) points out that not all students need to study the same course, acquire the same facts, or "store the same sets of data" [p. 413]. In Toffler's opinion what is important for all students is a good background in the common skills needed for human communication and social integration.

Learning how to live a satisfying, creative, and productive life is considered a desirable result of education by Billy Sharp (1971). "Teaching of behavior lies much closer to this result than does the teaching of abstract and unapplied information" [p. 100].

Carl Rogers in Freedom to Learn (1969) views the goal of education as the facilitation of change and learning. "Changingness, a reliance on process rather than upon static knowledge, is the only thing that makes any sense as a goal for education in the modern world" [p. 104].

Most of the ideas cited herein regarding today's elementary school classrooms have been written about in the past ten years. Sydney Hook (1971) points out that John Dewey, who did his major writing in the first third of the twentieth century, had two basic principles for evaluating what takes place in the classroom: (a) reliance upon the best available scientific methods in the psychology of learning to discover the means, methods, and materials by which growth can be best achieved in the case of each individual and (b) an equal concern that all children in the community develop themselves by appropriate schooling to the full reach of their powers and growth as persons.

In the same writing, Hook further explains that for Dewey educative experiences are those that result in increased power and growth, in informed conviction and sympathetic attitudes of understanding, in learning how to face and meet new experiences with some sense of mastery, without fear or panic or relying on the treadmill of blind routine.

Reiterating the assessment of Manolakes and others that there is incongruency between what is known of human behavior and learning and what is practiced in current elementary schools, Krathwohl et al. (1964) pictures our society as fluctuating as to the affective objectives it will permit the school to develop. In essense, this constitutes a running away from involvement, an escape, as it were, from responsibility for making and implementing a decision for change. Vested interest groups and social forces are constantly at work, sometimes blaming the schools for some social problems of the day and other times curtailing the finances needed to cope with these and other problems. Thus, in many instances, teachers and school administrators have been wary of expressing affective objectives and all too frequently have led school staffs to retreat to the safety of the cognitive domain.

This places American society at a point where a decision must be made as to whether our technological efficiency and institutional regularity shall continue to dominate our schools and lead us further toward total depersonalization or whether school shall include also the kind of environment that is required for persons to grow as

individuals in productive affiliation with others and to be total human beings (Weinberg, 1972).

Weinstein and Fantini (1970) in writing of their Elementary School Teaching Project funded by the Ford Foundation identified their approach as one which included the preparation of students to engage in constructive personal and social behavior, an approach which is essential to achieving the intellectual goals of learning. "Otherwise, no matter how successful its educational system is in teaching the specific stuff of subject matter, the society is likely to decline and decay" [p. 91].

In keeping with these ideas it is recognized that two activities which take place in a classroom are learning and teaching. Munson (1970) defines both activities. "Human learning seems to be a personal and dynamic phenomena in which the process rather than the product or goal is the essence" [p. 47]. Teaching, then, appears to be an activity whereby the cognitive, affective, and psychomotor components of human learning can be developed and integrated so that the learner can piece together his self-identity and the meaning of his existence. Teachers are trying valiantly to fulfill the obligation of teaching as defined above. But teachers, too, are learners and teachers are humans, not machines--humans who need interaction with others to function optimumly in maintaining an unbiased focus on the needs of the individuals whose learning they would enhance. Even with the dedication that teachers have toward their students and teaching, to assume that teachers do or can attend to all the facets

of human learning is to expect the impossible.

That there is need for change in the public elementary schools has been established. The direction for change seems to be in the areas of understanding self and of developing effective interpersonal relationships. In moving to the creating of a climate conducive to the development of self and relationships with others, teachers need interaction with other professional persons.

Rationale

When a youngster has difficulty with mastering the basic skills of reading, the reading specialist is consulted. When a child has a speech problem that impedes his functioning adequately, the speech specialist is contacted. For effective teaching, the teacher is the specialist. Teachers focus on subject matter--understanding the child on an intellectual level. The school nurse is concerned with the health aspects. The reading specialist knows more about reading work in small groups. The speech specialist is the one who possesses the skill needed for improving speech. Administrators are concerned with the smooth running of the institution and do not have the time and often the skills to be a specialist in terms of human behavior. Adjunct to these activities is the school counselor--a specialist who can meet the needs of children whose feelings and/or behavior are interfering with their making the most of their educational opportunities. Who, then, is to initiate change and to assist teacher in coping with change in the schools?

The logical person to serve as agent of change is the behavior-specialist-trained elementary school counselor who is charged with the responsibility for the elementary school guidance services. Muro (1970) defines this service:

> . . . a planned approach designed to help children achieve all that they can. Included in this approach are the efforts of teachers, psychologists, counselors, and administrators, all of whom strive to benefit the individual child in one way or another. Because of specialized training and the structure of the elementary school, certain functions will logically fall into the realm of specialists, while others will become the duties of the classroom teachers [p. 5].

In the elementary school guidance program, the counselor is a key person who contributes his knowledge and skills through the processes of counseling, consulting, and coordinating. Counseling, both individual and small group, can provide assistance to children in the normal process of growing up as they seek to understand themselves, to meet the developmental tasks of childhood, to learn effectively, and to develop realistic self-concepts. Emphasis is on the child as a learner in the school situation. Consultation is the process of sharing with another person or a group of persons information and ideas, of combining knowledge into new patterns, of making mutually agreed upon decisions about the next steps needed. Coordinating is the process of relating all efforts for helping the child into a meaningful pattern (ACES-ASCA, 1966).

There are numerous theoretical approaches to elementary school guidance. The one most closely related to this study is the integrative approach:

> Essentially this approach focuses on the human and the human learning process. It attempts to weld the three basic ingredients of the educative process in a manner that facilitates the growth and development of the individual and enhances his potential for learning and living (Munson, 1970, p. 35).

This approach draws heavily on known theoretical ideas and research from a variety of sources integrating this knowledge and applying it to the process of education. It is interdisciplinary in that it makes use of the theories, the findings, and other beliefs from psychology, philosophy, sociology, and education. It is concerned with (a) the learner (child) as an individual and the individual as a learner, (b) the behaviors to be learned, and (c) the conditions of learning (Munson, 1970).

> The central function of elementary school guidance is to enhance and improve the learning environment of the school so that each pupil in the elementary school has an opportunity to learn to the best of his capacity (Munson, 1970, p. 36).

This emphasizes the function of consultation through participation in creating an environment conducive to learning and growth for all children, through helping parents to understand the developmental needs of all pupils, through working with parents to meet the individual needs of their own children in the school situation, through helping the individual child to grow in self-understanding--in positive maximum use of his potential, and through participating in curcirulum development and change (ASCA-ACES, 1966).

For the counselor-consultant to be effective, he must operate from a frame of reference regarding man and his development. Alderian theory sees man as goal-directed, one whose behavior is purposive.

His behavior can best be understood subjectively in terms of its social meaning (Dinkmeyer, 1968). To this is added Combs' assumption that the world is the individual's world as he perceives it. An additional assumption significant to this study is that the change in the child can be effected through the significant others in his life.

Dinkmeyer (1968) submits these assumptions which incorporate both the neo-Freudian psychology of Adler and the phenomonology of Combs: (a) human personality is best understood in its unity; (b) behavior is goal-directed and purposive; (c) motivation is best understood in terms of understanding the way in which the child strives for significance; (d) behavior and misbehavior reflect the world as the person perceives the world which he has experienced; (e) all behavior has social meaning; (f) belonging is a basic need of all humans; (g) development of social interest is critical for adjustment.

Nine developmental tasks for middle childhood have been identified by Havighurst (1953), a developmental task being:

> one which arises at or about a certain period in the life of an individual, the achievement of which leads to his happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by society, and difficulty with later tasks [p. 2].

Of these nine developmental tasks for middle childhood, five deal significantly with self-concept and/or interpersonal relationships: (a) building wholesome attitudes towards one's self as a growing organism; (b) learning to get along with age-mates;

(c) developing conscience, morality, and a scale of values; (d) achieving personal independence; and (e) developing attitudes toward social groups and institutions.

If counselor-consultants are to be effective, they must be aware of the significance of the self-concept, which, according to Arthur Combs (1971), is the most important single factor affecting behavior. Combs defines self-concept as the organization of perceptions about self which seems to the individual to be who he is. The self-concept is learned as an infant with the process of differentiation and concept formation being greatly accelerated as the use of language develops. The most crucial concept of self is derived from experiences with other people, most often those the child considers significant others (Combs, Avila, and Purkey, 1971).

Fitts (1972) considers self-concept as the frame of reference through which an individual interacts with the world and is, therefore, a powerful influence on behavior. That the self-concept is most strikingly affected by experience (especially interpersonal ones which result in positive feelings and a sense of value and worth), competence (in areas valued by the individual and others), and self-actualization (the implementation and realization of one's true personal potentialities) was the finding of Fitts et al. (1971).

A factor frequently overlooked is the importance of the self-concept of significant others. In other research, Fitts (1972) produced substantial evidence that the self-concept is a significant variable in the behavior of those who most influence the education

process--teachers, counselors, and teacher aides. Students can be helped only at the Maslow need level at which the teacher operates is posited by Billy Sharp (1971). If a teacher lives primarily for economic security, his examples and precepts will be primarily designed to limit his students to that level. Those more concerned with their affiliation and interpersonal relations will reach children at the need for affiliation level--a force enhancing self-concept.

The kind of individual being shaped is determined by the educative process and the human encounter that characterize school life according to Bettelheim (1969), who writes, "The capability for human interaction is as important a qualification as academic knowledge and teaching skill" [p. 78].

Thus far the importance for increased emphasis on the affective needs of children to be provided for in elementary schools has been reviewed. Elementary school guidance has been suggested as one of the approaches to meeting this need. The significance of self-concept and interaction with others, both from the standpoint of the student and of the teacher, has been explored. How, then, shall the counselor-consultant procede in his efforts to improve the conditions of learning for youngsters with efficacy?

In pursuit of an answer to this question, the possibility of consultation arises. The Joint Committee of ASCA and ACES (1966) included in their report the following in defining the function of the consultation process of the elementary school counselor:

> The child development consultant as a member of the professional staff of an individual elementary school will share the responsibility for contributing to the positive growth and development of all children. He will contribute his knowledge and skill to that of . . . other staff members through participating in creating an environment conducive to learning and growth for all children by:
>
> 1. Helping members of the school staff to understand the effect of their behavior on children, the interaction between children and adults and the importance of this interaction in the child's self-concept and relationship with his peers.
> 2. Planning with the teacher ways to foster acceptance and valuing of individual differences in addition to academic achievement [pp. 134-35].

It is with these two responsibilities of the consultation service that this study is restricted.

Faust (1968) places group consultation with teachers as the most important consulting function because it provides for the counselor's major objective of assisting in freeing all children to learn. In other words, he attempts to assist the teacher to build learning climates where children are relatively free of anxiety and conflict. This is a joint effort implemented by the teacher as a result of consultation. To Faust, group consultation is three or more persons meeting to solve a problem through focusing on units external to their personal selves, but at least one of these persons must be a counselor. More children are reached through group consultation with teachers than in any other way in that teachers will apply the results of consultation to other situations and in that improvement in behavior of one child will make the classroom a better environment for all children. The aim of this consultation is an ultimate

reduction in human misery, and to help children become effective productive persons, learners, and citizens of the society.

In summary, a need for change in focus from predominately cognitive domain to the inclusion of the affective domain in elementary public schools has been established. The significance of self-concept as influenced by interpersonal relationships has been presented. The elementary school guidance approach has been advocated with specific emphasis on the efficacy and effectiveness of group consultation being stressed. These ideas constitute the problem with which this investigation is concerned.

Problem

Several questions have emerged. Who is to initiate and implement change in conditions for learning? What procedures are most effective for instituting change? What qualities have significance in facilitating improved learning conditions? This investigation is designed to examine the effect of group consultation by counselor-consultants with elementary school teachers on the self-concepts of these teachers and their students. Particular attention will be paid to interpersonal relationships and interactions.

Null Hypotheses

To examine the problem posed, five major null hypotheses have emerged:

Ho_1: As assessed by the Tennessee Self-Concept Scale, there

is no significant difference in self-concept of teachers who experience different consultation groups.

Ho_2: As assessed by the Piers-Harris Children's Self-Concept Scale, there is no significant difference in self-concept of students whose teachers experience different consultation groups.

Ho_3: As assessed by the Fundamental Relations Orientation: Behavior Questionnaire, there is no difference in interpersonal relationships of teachers who experience different consultation groups.

Ho_4: As assessed by the Hill Interaction Matrix, there is no difference in interaction of teachers who experience different consultation groups.

Ho_5: As assessed by the Flanders Verbal Interaction Analysis, there is no difference in interaction of students whose teachers experience different consultation groups.

For the purposes of statistical examination these null hypotheses are subdivided into 20 sub-nulls (see Appendix A).

Definitions

To facilitate preciseness, the following definitions are being utilized for this study:

1. Consultation: The process of sharing with another person or group of persons information and ideas, of combining knowledge into new patterns, and of making mutually agreed upon decisions about the next steps needed in assisting students (ASCA-ACES, 1966).

2. Interaction: A process of communication between two or more people where both the linguistic meaning and the emotional response are mutually clarified whenever clarification seems necessary (Gorman, 1969).

3. Interpersonal: Refers to relations that occur between persons as opposed to relations in which at least one participant is inanimate (Shutz, 1966).

4. Self-concept: The frame of reference through which the individual interacts with the world (Fitts, 1972).

Delimitation

This study has been limited to the students and professional staff within the Boone Community School District. The particular population served was students and teachers in grades, three, four, and five during the 1972-73 academic year.

Inferences from the analysis of the data obtained in this study are valid if they refer to the population of the Boone Community School District that was used to procure the data. Any inferences made to any other populations will be subject to considerably more error. However, it is entirely appropriate to apply the strategies employed in this study to conduct other investigations concerning consultation effects and in making inferences regarding the efficacy of counselor consultation with teachers.

REVIEW OF LITERATURE

This study was concerned with group consultation services of elementary school counselors and the self-concepts of elementary school teachers and their students. After a preview of the literature related to the central purpose of this study, the organizational scheme that logically followed was self-concept research and group research. By using each of these general topic heads, it is possible to provide the reader with a meaningful format and at the same time provide for diversity of method and procedure.

When reviewing each of the major headings, attention will be given first to clarification of concepts; i.e., definition, development, importance. Specific studies will follow with a summary statement completing each section.

Self-Concept

Initial search of the literature disclosed that there is not a single construct for self-concept, but that a variety of viewpoints exists concerning self-concept and its importance in the behavior of humans. Curiosity about his nonphysical being has been an eternal challenge for man. With Descartes assertion that because one thinks, one is, the door was opened for the focus to shift from the hereafter to the here and now, although the major thrust for the understanding of the self did not arrive until the beginning of the twentieth century. In American psychology at the turn of the century there was appreciable interest in the self. William James (1890) regarded

the self as an important psychological construct.

The early decades of the century were concerned with developing theories of psychology and defending the theory rather than engaging in empirical studies. The major theoretical positions dealt with the unconscious, with introspection, with insight, and with behavior. With the appearance of J. B. Watson's Behaviorism in 1925, American psychology moved into a period dominated by scientific study of observable behavior--stimuli and response. During this period internal concern was obscured by external motivation. Although the emphasis of experiments during the thirties and the forties was behavioristic, the self received the attention of sociologists and psychologists such as George Mead (1934), Kurt Lewin (1936), Gordon Allport (1937, 1943), and P. A. Bertocci (1945).

Others who were instrumental in returning the concept of the self to a focal point in psychology and education were Carl Rogers, Donald Snygg, and Arthur Combs. Snygg and Combs (1949) developed the importance of the way the individual perceives himself and the way he perceives his world. Rogers (1959) emphasized the importance of interpersonal relationships and the need for consistency. Influences of such advocates of the self have been instrumental in the surfacing of the current emphasis on humanism.

Gordon and Gergen (1968) noted that over two thousand publications dealing with the self-concept have resulted from the work of psychiatrists, psychologists, and sociologists. The focus of attention varies with the theorist. Adler, Horney, Fromm, Freud, and

Sullivan studied maladjusted individuals. The emotional health of persons was emphasized by Maslow, Seeman, and Jourad. More recent works include those of Glaser, Gordon, and Rogers which move the importance of interpersonal relationships in self-concept from adjunct status to a central focus when dealing with behavior. Perhaps the best known formulation of self-concept is found in self-theory by Snygg and Combs (1949, revised in 1959). Other recent work in the importance of the self has been the extensive research of Brookover (1959, 1962, 1964, 1965, 1967), Combs (1965, 1969), and Coopersmith (1967). In 1961 Wylie published a review of the empirical literature which investigated the self. J. C. Diggory (1966) in Self-evaluation: Concepts and Studies provided a useful extension for understanding the part played by the perceptions of self and situation in the behavior of the individual.

Some high points in the general history of the study of the self have been reviewed. More specific information appears under appropriate headings in the sections which follow.

Self-concept defined

Self-theory is in essence phenomenological theory. All behavior is determined by and related to the individual's phenomenal field, which includes everything a person is aware of at the moment of action, including the phenomenal self. The phenomenal self is composed of all those parts of the phenomenal field which the individual identifies as characteristic of himself (Snygg and Combs, 1949).

Self-concept, then, is that organization of perceptions about self which seems to the individual to be who he is (Avila, Combs, and Purkey, 1971). It should be pointed out that even though self-concept is a construct or an abstraction, for the person himself the perceptions comprising self-concept have a feeling of reality. Thus, the self-concept composes the frame of reference from which the individual observes, participates in, and interprets the events in his life.

Development of self-concept

Self-concept is learned by each person through experiences: experiences with self, with people, and with environmental reality (Fitts, 1973b); that is, self-concept is a consequence of experience.

The development of self-concept begins early in the life of the individual with a process of differentiation of himself from his environment, which includes other people (Jersild, 1960). After this early differentiation of self from the rest of the world, the individual's concept of self is dependent in a large measure upon his perception of his interaction with other people. Numerous theorists (Horney, 1939; Freud, 1946; Sullivan, 1953), while using diverse terminology support the significance of interpersonal relationships in the formation of an individual's personality, a term central to their theories.

An individual's earliest interpersonal relationships are with his family. Here first he experiences feelings of adequacy (or

inadequacy), acceptance (or rejection), opportunities for identifying with others, and contact with expectations concerning behavior and values (Combs and Snygg, 1959). As his world expands, the individual is influenced in his perception of himself by other people who are significant to him. Sullivan (1953) suggested that self-concept is determined in a large measure by the way the individual interprets the behavior of others toward him, "reflected appraisal" in effect.

In summary, self-concept is learned. The development of self-concept begins with differentiation of self from environment and continues throughout the rest of the individual's life as he internalizes his experiences of interaction with significant others.

Importance of self-concept

Self-concept is perhaps the most important factor influencing human behavior. For the individual it " . . . provides a screen through which everything else is seen, heard, evaluated, and understood" (Combs, Avila, and Purkey, 1971, p. 43). By observing the individual in process and interaction with others, it is possible to make assumptions regarding self-concept.

Seeing is behaving--if a situation is perceived as threatening to an individual, his behavior is in response to that perception. To phenomenologists such as Snygg and Combs (1949, 1959) and Rogers (1951), the motive behind all behavior is the maintenance and enhancement of the perceived self. Combs (1965) describes this characteristic as:

> . . . an insatiable need for the maintenance and enhancement of the self; not the physical self--but the phenomenal self, of which the individual is aware, his self-concept [p. 8].

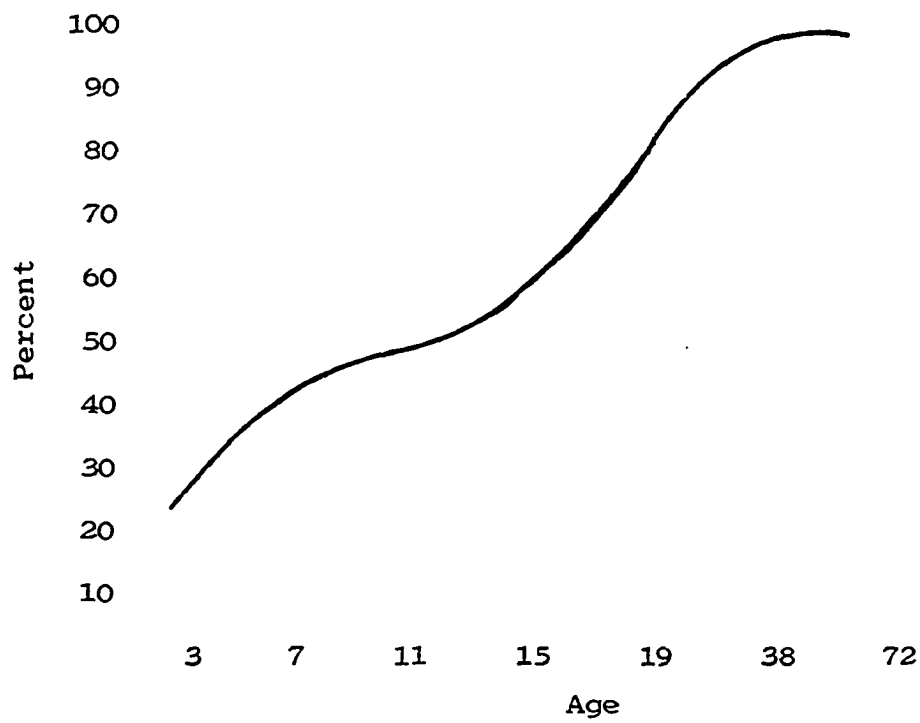
This maintenance implies a consistency which is necessary for a comfortable feeling about one's self.

William Fitts has been concerned with self-concept for the greater part of his life as a therapist, researcher, and in a measure, as a philosopher. While his development of the Tennessee Self-Concept Scale was in response to what he considered a need for a better means for assessing self-concept (Fitts, 1973b), Fitts considers the assessment of self-concept to be a means to an end: self-concept is a meaningful criterion for understanding people and their differences, and, by studying the components of self-concept that each person exhibits, individuals can be assisted in change and growth.

While self-concept is usually viewed as characteristic of an individual, the implications of the significance of self-concept accumulated across a segment of a culture are equally significant. An example is the self-perpetuating feeling of hopelessness and worthlessness of the victims of economic poverty such as persons in an inner city or persons in segments of Appalachia. On the other hand, the accomplishments of individuals and groups of individuals such as those involved in the space programs reflect the effect of positive self-concepts with a cumulative effect which can transcend geographical boundaries to achieve a universal conceptualization (Combs, Avila, and Purkey, 1971).

Stability of self-concept

Many theories agree in principle but differ in terminology concerning self-concept. For example, some writers refer to self-concept in terms of self-esteem; others use the term self-regard. Bloom (1964) presents Sanford's curve for ego development which Sanford (1962) inferred from psychoanalytic literature, especially the writings of Anna Freud. To this curve Bloom added age and percentage estimates of growth by periods which he believed to be consistent with the qualitative description of ego development found in the literature of psychology and child development (Bloom, 1964).



Scale for the development of ego (from Sanford, 1962). Values inserted by Bloom

Most self-theorists agree that once the core of self-concept has been established, it is a fairly stable entity. However, most also agree that the self-concept is continually developing, a process which results in a self-structure that Rogers (1959) describes as " . . . a fluid gestalt, changing, flexible in the process of assimilation of new experiences" [p. 234].

Taylor (1955) found that the self-concept tends to be highly consistent over intervals embodying different time spans. Other findings of Taylor's study were that temporary moods and feeling states have little effect on self-concept and that repeated measurement mildly affects the self-concept. Taylor accounts in part for the latter by suggesting that the introspection and self-evaluation involved tend to influence self-concept with positive self-concepts becoming more positive while negative self-concepts become more negative.

Numerous studies have failed to show changes over a period of time to a treatment procedure. Yet, Fitts and Hammer (1969) submit that there are also a number of studies which showed that experiences which are meaningful and significant to the individual do, indeed, instigate self-concept changes. In accounting for this assumption, Fitts and Hammer consider that change is not immediate since the self-concept has to be reorganized from perceptions resulting from feedback from the new behavior.

In unpublished data, Joplin, 1964, as cited by Fitts and Hammer (1969, p. 26), demonstrated that it is possible to make

changes in self-concept in a positive direction. The study involved 28 subjects who were incarcerated at the Highlands Center in New Jersey. The program at Highlands stressed personal adjustment, so no additional specially designed treatment was provided for the subjects. The program utilized group approaches which allowed the subjects to assume responsibility in setting and enforcing behavioral goals for themselves and for each other. Pretest and posttest data were obtained. A follow-up study was made two years later. Eleven of the 28 boys had returned to an institution. The data was treated again after dividing the subjects into two groups: the recidivist group and the nonrecidivist group. The follow-up data indicated that those who became members of the nonrecidivist group had displayed different self-concept changes during their treatment at Highland. Analysis of the data established that the greatest change in self-concept was made by those who were in greater distress with and about themselves and were less defensive. Fitts and Hammer regard this study on change in self-concept as encouraging rather than conclusive since the sample was small and no cross-validation had occurred.

Self-concept of children

Much of the research on the self-concept of children deals with delinquents and other exceptional children or disadvantaged children or another correlate, achievement. One might speculate that the delinquent and other exceptional children comprise captive groups with whom to work; the studies of the self-concept of disadvantaged

children are a product of federally funded programs; the correlation of self-concept with achievement is the area most commonly investigated by those in the field of education, although other correlates are also significant to educators.

In summarizing the studies concerning delinquents, Atchison, 1958; Deitche, 1959; and Kim, 1967, as cited by Fitts and Hammer (1969, pp. 16-17), found a definite difference in the self-concept of the delinquent from the self-concept of the nondelinquent. The delinquent's self-concept is to a greater degree negative, uncertain, variable, and evidencing conflict. Delinquents are less defensive than nondelinquents; they are likely to be more acquiescent; and they are deficient in personality integration. Delinquents tend to be at odds with society. Fitts posits that delinquents are also in conflict with themselves and are low in self-concept.

Lefeber, 1965, as cited by Fitts and Hammer (1969, p. 22) used two groups of delinquents, one consisting of first offenders and the other of recidivists, and a nondelinquent group. Lefeber found that the two groups were significantly different from one another in overall self-concept, in self-esteem, and in behavior. In addition he found the greatest differences between the nondelinquents and the recidivists. Lefeber's study supported the contention that there is a relationship between poor self-concept and delinquent behavior.

The evidence from other studies is contradictory regarding change in self-concept of delinquents as a result of incarceration. In a study conducted at the State Vocational Training School in

Pikesville, Tennessee, Fitts found that the length of time the boy had been in the institution was not a significant factor in his perception of self. Mease, 1961, and Balaster, 1956, as cited by Fitts and Hammer (1969, p. 25), reported sinilar findings with Mease finding some change in a positive direction but not a significant one. A study by Hammer, 1969, as cited by Fitts and Hammer (1969, p. 25), yielded findings similar to those of Mease. But Fitts in a study conducted at the Women's Prison in Tennessee found indication that subjects who had been in prison for a shorter period of time had healthier self-concepts than those who had been imprisoned for a longer period of time. Therefore, the findings of Joplin, which showed significantly different self-concept changes in nonrecidivist delinquents offered challenge and encouragement to researchers since the self-concept does not change readily.

In the past ten years much has been written concerning the disadvantaged child. Prior to this time, the widely accepted assumption had been that socioeconomically disadvantaged children have lower self-concepts. In this time interval, studies show that this is a dangerous assumption. A representative study is that of Soares and Soares (1969) in which the researchers investigated the self-concepts of 295 advantaged and 229 disadvantaged children in Bridgeport, Connecticut, schools in grades four through eight. The advantaged were identified as coming from families whose income was $7000 or more. The disadvantaged children came from families whose income was $4000 or less. Each child checked a self-rating form of forty bi-polar traits such as:

I am a happy person	_____: very happy	_____: more happy than unhappy	_____: more unhappy than happy	_____: very unhappy	I am not a happy person

A Chi-square procedure was used to assess the results. As might be expected, both advantaged and disadvantaged children reported positive self-perceptions and personality traits. The disadvantaged children had higher self-perceptions and in more instances viewed themselves as having higher positive personality traits than the advantaged groups. So, despite their socioeconomic handicap, disadvantaged children do not necessarily suffer from lower self-esteem and a lower sense of personal worth. Soares and Soares suggest that neighborhood schools of the elementary school child provide a homogeneity of population and, therefore, a form of security.

Next the Soares (1971) investigated self-perceptions of both elementary and secondary school students who were classified as advantaged and disadvantaged. Their sample consisted of 183 disadvantaged and 190 advantaged elementary school students and 138 disadvantaged and 150 advantaged secondary school students. Forty bipolar traits for self-rating were checked. Analysis of variance was applied to determine the significance of mean differences comparing disadvantaged and advantaged, elementary and secondary, male and female. Their findings include that disadvantaged children view themselves more positively and perceive that others look at them more positively than advantaged children; the elementary school students

had higher self-images than secondary school students. The Soares suggest that the change from neighborhood elementary schools to integrated secondary schools, which are larger and therefore are more competitive and offer less security to the individual, contributes to the lowering of self-images for both disadvantaged and advantaged students.

Others have reported similar findings. Brookover's longitudinal study of the self-report of over 1,000 seventh grade white students in an urban school system who were followed through the twelfth grade from 1962 through 1968 is one example. The student's concept of his ability is more significant than his total self-concept according to Brookover (1964). Morse (1964) found that reported self-concept decreased gradually with age with 84% of the youngsters in third grade being proud of their work in school while only 53 percent of the eleventh grade students claimed they were proud of their work.

Trowbridge (1972) in studying creativity in students and teachers found that lower class children have higher self-concept scores than middle class children as assessed by the Coopersmith Self-Esteem Inventory. Rosenberg (1965) found that social class has a limited effect on self-esteem and that ethnic membership does not relate to self-esteem.

Studies by Kerensky (1967) and Carter (1968) also resulted in rejection of socioeconomic circumstances of ghetto and inner city children as a causative factor in lower self-concept.

Coopersmith (1967) suggested a number of factors which apparently

have insignificant influence in developing high esteem. Among these were social class and ethnic background which he considered needed more study.

Coopersmith (1967) made an intensive and extensive study of self-esteem and its development. He defines self-esteem as:

> . . . the evaluation which the individual makes and customarily maintains with regard to himself: it expresses approval or disapproval, and indicates the extent to which the individual believes himself to be capable, significant, successful, and worthy. [p. 4,5]

As a result of his investigation, he concluded that three conditions enable a child to value himself and to consider himself a person of worth are: parental warmth, respectful treatment, and clearly defined limits. This indicates that the family relationships are more important than socioeconomic factors in developing self-esteem and, therefore, low self-esteem can exist in any family.

While the home is the most important factor in developing the self-concept of the child and determines the attitude toward himself with which the child enters school, the next most important element in developing the child's self-concept is the school. Purkey (1970) states that significant others are the most influential factor in molding the child's self-concept. Therefore the teacher as a significant other can build or damage a child's self-concept.

One of the early studies along this line was conducted by Staines (1958). The conclusion from his study of classroom interaction between teacher-child and child-child was that self is an important factor in learning and changes, either positive or negative,

in self-concept do occur as a result of the teacher-child relationship. His study confirmed that cognitive learning was as good or better with a teacher who included attention to affective learning in the school day as it was with the teachers who ignored the affective domain. However, the self-concept of those students whose teachers dealt with the affective domain either grew or maintained positive direction while those whose affective needs were overlooked moved in a negative direction.

Richmond and White (1971) reported that students whose teachers described them unfavorably are likely to have low self-concepts, to be less popular with others, and to achieve academically at a low level. Other studies which confirm that a child's behavior is greatly influenced by the expectations of the significant others in his life include Meyers (1966), Brookover et al. (1965), Shaw and Dutton (1965), and Davidson and Lang (1960).

Another correlatate of self-perception, classroom environment, was investigated by Purkey and Graves (1970). They hypothesized that students of a school (E) which was ungraded, humanistic, success-oriented with freedom to explore and in which academic failure and yearly retention were eliminated would show greater evidence of self-esteem than students in a school (C) that featured self-contained, grade level classrooms. In the experimental school students were enrolled in Quad 3, 4, 5, or 6 comparable in age and grade level of the conventional school but allowing for continual regrouping for individual differences without a stigma of failure or placing

the child outside his chronological age group. Purkey and Graves also predicted that the measured differences in self-esteem between the two groups would increase as the grade level ascended. The Cooper-smith Self-Esteem Inventory was the instrument used. Means were calculated by grade (quads in the E group) and by schools. Both hypotheses were verified using analysis of variance procedures, i.e., the students in the experimental group had higher self esteem than students in the conventional school and the longer the children were in the experimental school the greater the difference.

Studies seeking to identify the relationship between self-concept and academic achievement are numerous. In his longitudinal research Brookover (1965) concluded that the student's self-concept of ability is significantly related to achievement, that the self-concept of ability limits school achievement, and that the student's perception of his ability is a better predictor of his achievement than global self-concept.

Other studies, Campbell (1965), Bledsoe (1967), Gill (1969), and numerous other studies point to a relationship between self-concept and scholastic achievement. Purkey (1970) summarized the current status of self-concept and achievement in this fashion:

> Although the data do not provide clear-cut evidence about which comes first--a positive self-concept or scholastic success, a negative self-concept or scholastic failure--it does stress a strong reciprocal relationship and gives us reason to assume that enhancing the self-concept is a vital influence in improving academic performance. [p. 27]

A final area to report upon is the pattern throughout the school year upon the assessment experiences of elementary school students.

In general, elementary school students are likely to show negative increases and positive decreases on personality measures as the school year approaches completion. A study demonstrating this tendency is that of Flanders, Brode, and Morrison (1968).

In reviewing student self-concept, we have examined representative research regarding delinquents, the disadvantaged, and other correlates; i.e., significant others, antecedents, classroom climate, and academic achievement. The question arises, How does the teacher's self-concept affect the student's self-concept?

Self-concept of teachers

In considering teacher self-concepts the findings of Combs et al. (1969) are significant to this study. Combs' study indicates that materials and techniques are important, but equally important are the teacher's self-perception and his attitude toward others. This supports the assumption that a person behaves in accordance with his beliefs about himself. Earlier studies pointing the way for this conclusion include Berger (1953) who found that self-concept and perception of others are related. Trent (1957) concluded that a person who accepts himself probably accepts others. Purkey (1970) reports that Jersild was one of the early advocates of the importance of a teacher's self-concept. These findings provide evidence that a teacher's classroom effectiveness is dependent to a large degree upon his perceptions of the worth of himself and his students.

From the frame of reference that self-concept is a critical

variable in all human behavior, the question arises concerning the kinds of self-concepts teachers have. Fitts' analysis of data from four studies (Fitts and Stewart, 1969; Fitts, 1972; McFarland, 1970; Koger, 1970) utilizing the Tennessee Self-Concept Scale indicated that teachers, as a group, report much the same self-concepts as do people in general. This means that it is unlikely that there is any self-concept characteristic peculiar to teachers as a special class that influences relationships between teacher self-concepts and other variables implicit in the educational process of schools.

Garvey (1970) studied student teachers using supervisor evaluation as performance criteria. The subjects were 150 student teachers. Their student teaching performance was evaluated by two supervisors. Following the student teaching experience, Garvey extracted two groups: one group (N=28) was made up of subjects who had received an A from both supervisors. A second group (N=12) had received two grades of less than B. All the subjects had written the Tennessee Self-Concept Scale prior to the student teaching experience and were found to be within the normal range of self-concept. The subjects in the higher performance group showed less conflict, lower variability, generally higher self-esteem, and higher personality integration. These discriminations occurred between groups both of which reported relatively normal self-concepts as assessed by the TS-CS.

A similar study by Passmore (1970) supported the findings of Garvey. The performance criteria for this project were ratings by supervisors and cooperating teachers for 143 student teachers. The

instrument Professional Judgment of Student Teacher Competence was used. The two groups extracted from these observer evaluations were the upper third (N=36) and the lower third (N=36). Assessment of self-concept for the total sample revealed normal or better self-concepts. For the two groups extracted, there were significant differences in performance in favor of the upper group.

Studies which use student evaluations as performance criteria for teachers have provided results that are less significant than those that use supervisor evaluation as performance criteria. For example, Fitts (1972) reports from personal correspondence with J. Seeman in 1965 an investigation in which two groups of teachers, divided according to student ratings showed no significant differences, only a trend that the high group moved in the direction of better performance than did the low group.

A study using classroom behavior as performance criteria was conducted by Trowbridge (1969) in the IMPACT project. The study investigated the relationship between teachers' self-concepts and the proportion of class time devoted to various activities. To assess the self-concept, the TSCS was administered to 208 elementary and secondary school teachers. Classroom activity consisted of analyzing audio taped discussions by using the Aschner-Gallagher Interaction Analysis system. This system categorizes the cognitive activities of students into types of thinking labeled divergent, evaluative, memory, convergent, and routine. Scores for each of these categories were correlated with teachers' Total Positive scores. The results

clearly indicated that teachers with more positive self-concepts elicited higher level thinking from their students. Seidman (1969) and Moravek (1970) in their research reported results similar to those of Trowbridge.

Blume (1968) refers to research examining the relationship between self-concepts of children and those of their teachers. The comparisons were made on each teacher's class for two years. The results were the same for both years: teachers who report high self-esteem tend to have classes in which children rate high in self-esteem.

The findings of research cited herein indicate that teachers compare faborably with the general population in self-concept. When performance in the classroom is compared with the level of self-esteem, those teachers with higher self-esteem tend to perform in more effective ways than those who, although within the normal range of self-concept, report lower levels. Further findings suggest that the level of self-esteem shown by the teacher is matched by the level of self-esteem indicated by his students.

Group Research

Teachers often seek assistance as they go about their tasks of providing for the growth of their pupils. They search for this assistance in various ways. Some enroll in classes at nearby universities. Others read in professional journals and books. Still others attend workshops conducted by specialists outside the school system.

Nearly all teachers participate in meetings scheduled by curriculum supervisors. A few take part in study groups which concentrate on a focal point such as the writing of learning activity packets or developing learning center materials. Another source of assistance for teachers is the elementary school counselor who is on the scene day by day, week in and week out.

As a means of providing assistance for teachers, a counselor may provide group activities. An overview of group experiences precedes specific research regarding group outcomes.

Overview

The literature is replete with research dealing with various types of groups. While some of the research employs the group formats used in this study, a resume of literature on groups would be incomplete if it were to exclude other meaningful research related to the format of this study. Hence attention is given to clarifying similar and dissimilar aspects of groups before proceeding with the diversity of research dealing with groups.

The classroom The classroom is not only a place where learning occurs. The classroom is also an environment with a climate that influences the growth of the persons assembled within its boundaries. Since the key component of the classroom is people, the classroom is regarded as a group.

In this group, the classroom, the individuals grow as total persons even though for the sake of convenience in communication we label that growth cognitive (subject-matter) or affective (social).

In the realm of cognitive growth we include the acquisition of content and intellectual function, which may range from learning basic number facts through exploring possible ways to balance a budget to evaluating the effectiveness of a decision to use coal to provide energy. Affective growth deals with understanding self and others. Here the learning touches upon such critical facts of life as personal worth, need for sharing, and respect for others.

Much of the climate within the classroom is determined by the interrelationships of students with students and of students with teachers. Teachers model these relationships during their contacts with students and while being observed in the process of interacting with other students and teachers.

The classroom is a structured work-group wherein the social context provides for learning by experience. Its composition may range from ten to fifty involuntarily assigned students who possess diversity of characteristics and one teacher or leader. At elementary school level these people meet together daily usually for one school year. The classroom group focuses on subject-matter learning and social learning in providing the student with the opportunity to study the effects of his behavior as he goes about his work of learning in the classroom group. This group is holistic with the basic components being the individual, the nature of the learning tasks presented, and the interaction that takes place within the classroom. Munson (1970) refers to these elements as the learner,

the behaviors to be learned, and the conditions under which the learning takes place.

Small groups. Often the classroom group is relatively large. Smaller groups also serve a purpose in the growth process. These smaller groups are concerned with personal growth whether intellectual only or the more intensive group experience which Rogers (1970) regards as the most rapidly spreading and potentially potent social invention of the century. The significance of the personal growth experience in relation to the development of self-concept permeates the writings of Rogers (1951), Rogers and Dymond (1954), Wrenn (1966), and Tyler (1961). For the purpose of description, a rather broad classification suffices to delineate the characteristics of four kinds of group experience: T-group, encounter group, sensitivity group, and therapy group.

The T-group, so named because it was developed at the National Training Laboratory from the work of Kurt Lewin, focuses on process--how people function in problem-solving situations. Essentially, the T-group provides the framework for individuals to participate in mutual activity which emphasizes the processes of group interaction, an individual's responsibility within a group, and the application of these processes to the work requirements of daily living (Bradford, Gibb, and Benne, 1964). The T-group is usually an adult group of eight to twenty members who have a common background but may vary in age. The leader is in somewhat of an advisory role as he helps the group function by analyzing, clarifying, and suggesting. The

T-group provides for feed-back concerning the individual's participation in the group, for comprehension of the forces which operate within the group, and for integration of the nonfeeling elements of the business world and the feeling needs of persons. This provides for the developing of mature, productive, and sound relationships among people.

The second type of group experience is the encounter group which Gordon (1972) regards as the opportunity to strive toward self-actualization through sharing individual and interpersonal experiences in the immediate experience. The participants are any persons not in the midst of resolving a serious problem or not seriously disturbed. The group will probably consist of six to ten members and will meet for a pre-specified period of time. The leader may use a variety of techniques from nonparticipation on a personal level to using self as an instrument for change. In encounter groups participants quickly establish relationships of trust, sharing, and caring. Because they trust and care they may confront one another but share in the responsibility of helping to work through the effects of the confrontation. In an encounter group such as this, an individual experiences the impact of using growth producing powers of perception and sensitivity.

Rogers (1970) reports that a sensitivity group may resemble either a T-group or an encounter group. A middle-of-the-road approach would be what Gordon (1972) calls a basic counseling group, one which is basically re-educative in that through the help of the leader who may use various styles and other group members, the individual is

helped to develop greater satisfaction from his interpersonal relationships. The size of this group may be from four to ten persons with a specified time element consisting of group sessions approximately one and one-half hours long and extending over a period of five to fifty sessions. Sharing of the less desirable parts of the self contributes to insights, emotional release, increased awareness, and acceptance.

A truly therapeutic group is one found within the confines of an institution and its purpose is generally thought to be rehabilitation with possible return to the outside world as its goal. The group size is small and the leader has a more responsible role in that he is in touch with the institutional goals for the individual (Durkin, 1964) and proceeds in a more structured manner than other groups. Persons in therapy groups have a secure setting for developing interpersonal relationships.

A final small group not included as one of the four categories above is the study group which focuses on intellectual growth. These groups may vary in size, age, topic of study, but the goal is increased knowledge. Study groups may be informal with elected leaders and selective membership or they may take other organizational forms. But the focus remains on content without revealing or sharing any personal relationship to the topic. Little involvement is expected of the participants and the study group format merely points out what information is available by lecture, demonstration, exhibition or intellectual discussion. Affect is given little or no

consideration in study groups.

From the research on interaction in the classroom and on interaction found within small groups, the review of literature for groups was gleaned.

Classroom verbal interaction

In reviewing research on classroom climate, Flanders (1967) comments that there are times when direct influence is most appropriate in classroom learning and others when indirect influence is most appropriate. Flanders cautions that much misinterpretation of research has resulted in the belief that direct influence should be avoided in the classroom. This gives rise to an interest in flexibility of teacher influence that remains to be studied.

Cogan (1956) studied the relation of the behavior of teachers to the productive behavior of their pupils. He presented the following schema to crystallize the process by which classroom behaviors are related to pupil change:

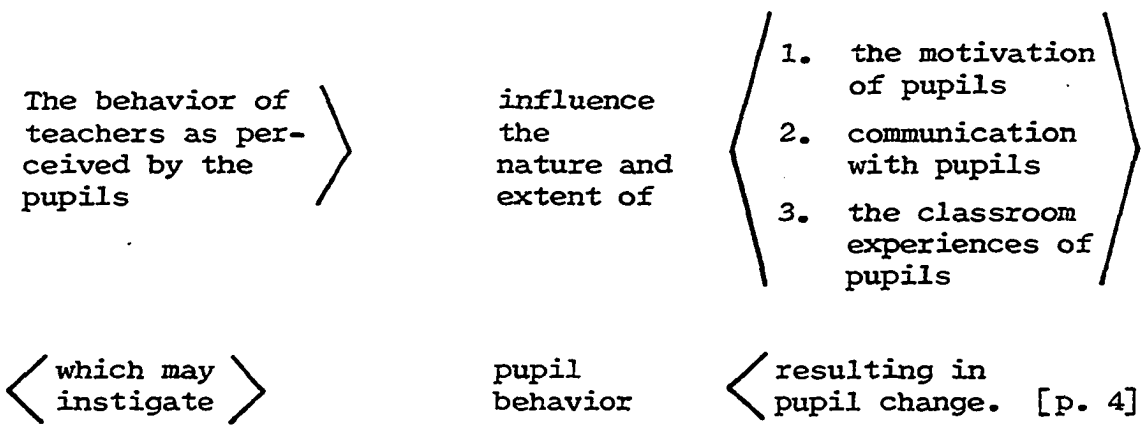


Figure 1. Schema for pupil change in classroom behavior

Using pupils' perceptions as data, Cogan reported inconclusive evidence that pupils tended to do less required work and less self-initiated work for teachers whom they perceived as preclusive (anti-social, surly, spiteful, dour, hostile, impatient, self-centered, self-assertive, and aloof) while for those teachers whom they perceived as inclusive (outgoing, good-natured, friendly, cheerful, trustful, patient, self-effacing, self-submissive, and responsive) the average required work scores and the average self-initiated scores related positively. His findings are much like those of Anderson et al. (1946), Lippitt and White (1943), Withall (1949), Flanders (1960), and Perkins (1951).

Furst and Amidon (1962) were among the first to use the Flanders interaction analysis process with elementary classrooms. They divided their sample into thirds representing different neighborhoods: low socioeconomic area in a large metropolitan school system, in suburban schools adjacent to the city, and in middle socioeconomic areas in the city. At least 25 classrooms were observed at each grade level in a minimum of five observations of the subject areas of arithmetic, social studies, and reading for a period varying from 30 minutes to 45 minutes. Rater reliability determined by the Scott coefficient varied from 0.87 to 0.99. Furst and Amidon concluded that teachers at different grade levels have different opinions regarding the teaching-learning process; that primary grade teachers consider student participation more important than intermediate teachers do; that primary grade teachers feel that

encouragement, acceptance, and praise are necessary while upper elementary grade teachers place more emphasis on cognitive learning; that upper grade teachers tend to place more value on independent study as much of the category silence was spent in seatwork; that all level teachers use methods indicative of extended indirect influence except third grade; that teachers tend to use more indirect methods in social studies than in reading and mathematics; that third grade is the year of change where the amount of teacher talk increases, the amount of praise and acceptance of student ideas is lowest, more time is spent in giving directions, extended indirect influence is lowest, teachers respond to student talk in ways other than praising and questioning, and student initiated response is lowest.

Amidon and Giammatteo (1967) found that superior teachers differ in verbal behavior patterns from those of average teachers. Student initiated activities were accepted more, encouraged more, and built upon by superior teachers. There was about 12% more student participation in the classes of superior teachers. Their sample was 153 elementary school teachers. Of these 33 were identified by supervisors and administrators. The other 120 teachers were randomly selected from eleven different school districts.

In investigating what happens to the positive attitudes of students toward teachers and schoolwork, Flanders, Brode, and Morrison (1968) concluded that the positive attitude diminished more in the classroom where teachers used less praise and encouragement

than those who offered more praise and encouragement. In addition, they found that there was a relationship between pupil attitudes towards the teacher and toward the learning process and teacher verbal behavior.

Soar (1966) compared teacher indirectness with student growth in creativity, reasoning ability, and concrete tasks. He found that the greater the teacher indirectness, the greater the growth in measured student creativity. Teacher indirectness was effective only to a point when performance in reasoning tasks as well as less abstract tasks began to decline.

Two studies that should be mentioned here include Dieken and Fox (1973) who found indication that specific relationships actually exist between the perceptions teachers have of themselves as teachers and their patterns of verbal interaction in the classroom. Webb (1971) demonstrated that teachers personality is a critical variable in the classroom. Teachers who are lacking in sensitivity to students who are shy and insecure or to students who have low self-concepts and dislike school have a negative effect on the students' self-concepts and attitudes toward learning. The student of average ability is particularly vulnerable to this kind of insensitivy according to Webb.

Group interaction

While much research using different types of groups has been done, the focus in this study is on groups that involve teachers.

In-service training is a way of life with the public school teacher. Flanders (1963) comments:

> At its worst in-service training is a gigantic spectator sport for teachers costing at least twenty million dollars annually. As spectators, teachers gather to hear speeches, usually choosing seats in the rear of the room. They play a passive role in which their own ideas and questions are not adequately considered. They react as one does to any performing art and, are more impressed or disappointed by the quality of the performance than with how much they may have learned. . . . At its best in-service training is the opposite of a spectator sport since the teacher leaves the grandstand and joins the arena of activities. [p. 25]

Recently interaction groups differing in focus and procedure have received attention from researchers who seek a relationship between such group experiences and changes in teachers' self-concepts, behaviors, classroom performances, or other variables.

Among these is a project in human relations training conducted by Bowers and Soar (1961) using 25 elementary school teachers in the experimental group and 29 in the control group. The experimental group participated in ½-day sessions five days a week for three weeks. Each session was subdivided into theory, skill practice, and training group experiences. The control group was given the option of free tuition summer school courses and participated in various activities to minimize the Hawthorne effect. Bowers and Soar concluded that not all teachers can benefit from this kind of training and that teachers whose personalities and classroom practices were initially most effective gained the most from the training program.

Hrivnak (1970) designed a process model for in-service education which combined group interaction sessions, classroom observations, and feedback:

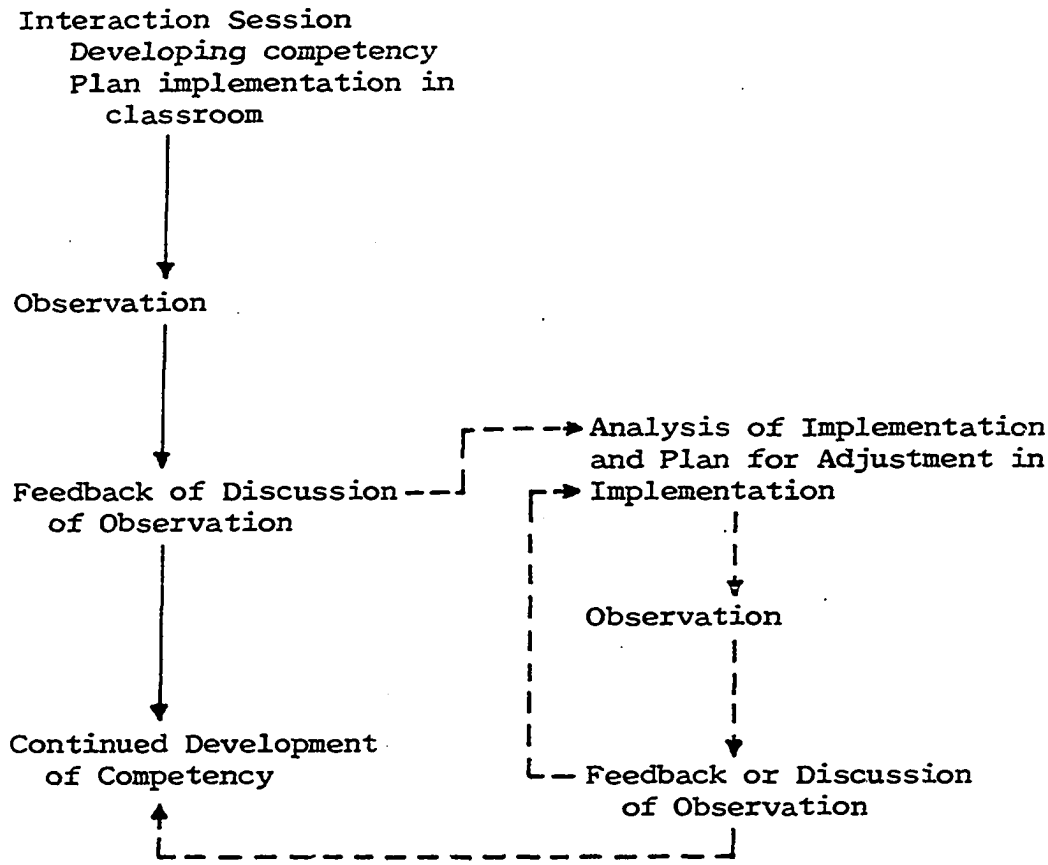


Figure 2. Process model for in-service education

The goal of Hrivnak's model was to produce changes in specific teacher behavior. Hrivnak's study consisted of two groups of female beginning primary teachers. Group A had five members. Group B had four members. The control group was composed of five experienced primary teachers. The program lasted for eight weeks. One treatment

group was completed before the second was begun. The groups met for one day per week with 1½ hours for group interaction and 1½ hours for planning. Two 45-minute observations followed for each competency. Feedback from the observer was provided. Competencies developed were: (1) develop and help students verbalize their academic difficulties, (2) use student's help in planning some group and individual activities, (3) use a variety of different levels of academic materials, (4) deal with each student's off-task behavior in relation to the individuality of that student. The study resulted in no statistically significant change, although there was movement toward the competencies desired with the experimental group. In addition, feedback from teachers who participated in the experiment indicated that the teachers believed that the program was useful to them and gave them new insights into children's growth, development, and learning. Teachers perceived changes in their own behavior as a result of this experience.

Soar (1966) starting from the position that knowledge of subject matter and development of the total personality are compatible goals of education, sought to relate student progress to classroom process and to measures of a teacher's personality and behavior. A second concern was to determine the effects of sensitivity training for teachers. Soar involved 57 teachers and their pupils from four metropolitan elementary schools in grades three through six in a pretest-posttest design extending over two years. At the beginning of the first year pretests were given. The following summer fourteen teachers volunteered for a nonresidential sensitivity training period

of three weeks' duration. The group met for three weeks for four to four and a half hours per morning. T-group sessions usually lasted two hours with the remainder of the time being divided between the theory session and the skill practice session. Posttest followed the second year of teaching. Mid-year observations were made of all classrooms each year. His findings were that the cognitive and affective goals of education are compatible and that the benefits of sensitivity training can be measured, although not everyone is benefited by such training, as the teacher's level of psychic resources constitute a factor in the effectiveness of the sensitivity training. This adds to the difficulty of assessing the effectiveness of sensitivity training.

Nelson (1969) conducted a study which attempted to help teachers become more aware of how their behavior affected the emotions and attitudes of their students. A week-end retreat plus five follow-up sessions of three hours each provided the framework for human relations training techniques, feedback of classroom interactions, a combination of these two, and a series of lectures on the use of new media to stimulate pupil motivation. It was predicted that these experiences by teachers should have a positive effect on pupil anxiety, peer relationships, self-concept, and attitudes toward school. Change was assessed by pre and posttests of anxiety and compulsitivity and classroom observations. No significant changes or trends were noted. However, some of the teachers considered that they were moving in positive directions as a result of their

experiences. This illustrates that different people change in different ways.

In an experiment with elementary school students, Berenson examined the effects of systematic human relations training with teachers upon their classroom performance. There were four treatment groups: the experimental group, the training control group, the Hawthorne effect control group, and the true control group. The experimental group was given 25 hours of training in the interpersonal conditions of accurate empathy, positive regard, genuineness, concreteness, immediacy, significant other reference, and confrontation prior to their student teaching experience. The training procedure utilized the integration of the didactic, experiential, and modeling sources of learning. The results indicated that student teachers can be trained in a relatively short time to function at higher levels of interpersonal skills, that supervisors of student teachers perceived those who functioned at higher levels to be more competent in their classroom performance than those who were functioning at lower levels, and that higher level functioning student teachers could cope better with teaching problems involving teacher-pupil relationships. In addition, those students with higher interpersonal skills tended to use more positive reinforcement such as praise, encouragement, accepting and clarifying pupils' feelings and ideas; to use less criticism; and to place less emphasis on subject matter content. Relatedly, students whose student teachers functioned at higher levels of interpersonal skills were likely to feel

free to offer information and ideas even when the teacher was speaking, to interact more with their peers, and to become involved with peer initiated activities than when the activities were proposed by the teacher.

The concern has been improving classroom effectiveness. A study that relates to this purpose but somewhat different in method was that of Jensen (1968) in which he investigated self-evaluation as a form of in-service education. Commenting that there were a variety of cognitive opportunities for improving teacher's subject matter and methodology, there are very few opportunities to work on communication processes. These are the processes which enable a teacher to transmit his attitudes, values, and expectations and to influence motivation, attitude toward school, and behavior of students. Beginning with the assumption that the creative process functions best when self-evaluation is permitted in the absence of external evaluation and when the individual can relate his performance to his ideal self, Jensen provided video-tapings of classroom lessons. Teachers were permitted to view the tape immediately and in private. In their written evaluations, the teachers pointed out some changes they felt thay had made. These changes were not always visible to someone else. However, there was increased self-confidence and desire for self-improvement. Because of the frustration caused in the participating teachers, Jensen concluded that consultation is necessary for this form of in-service education.

Other studies include one by Trotzer (1970) who attempted to

assess the effect of group-centered and topic-centered methods on group process and outcomes. Trotzer's three groups were two experimental treatment groups, one a basic counseling group and the other a topic-centered group, and a control group. Each volunteer group was composed of ten persons and each treatment had three groups. The Ss were volunteer collegians. Each experimental group met two hours per week for ten weeks. He found that using the Truax Scales that encounter groups differed significantly ($p < .01$) from discussion groups on accurate empathy, unconditional positive regard, and depth of self-exploration. Another finding was that there was no difference in self-concept scores as assessed by the Tennessee Self-Concept Scale. Using ten 90-minute group counseling sessions with five freshman English instructors in a midwestern university and a control group of eight from the same volunteer pool of thirteen, Davis (1969) found no statistically significant differences between experiential and control groups in his study to determine the effect of group counseling on teacher affectiveness. However, the means for the group counseling treatment group was higher than the control group in empathy, nonpossessive warmth, genuineness, intensity and intimacy of contact, and concreteness as assessed by Truax' Relationship Questionnaire. Manno (1969) investigated group interaction as a means of inducing innovative teaching in elementary schools. She used nine elementary schools with 169 teachers. Each building was divided into three treatment groups: E_1 was concerned with classroom practices; E_2 studied

parent-teacher relations; C received no treatment. The groups were led by teachers trained by the experimenter and given mimeographed guidelines for each session. Principals were included in the group compositions. Pre- and post-evaluations were made with a two-month follow-up. Her hypothesis that teachers who participated in group discussions would try more innovations than those who did not was upheld. Differences were found among buildings and there were fewer innovations by the parent-teacher study group than by the classroom practices group. Principals were perceived as making more evaluative comments than teachers. In addition, feelings of affiliation developed among group members. However, once the regular meetings stopped, all gains disappeared.

A final study to consider is one by Fitts and Stewart (1969) involving the self-concept of 40 teachers selected to staff a new and innovative junior high school. These teachers participated in a six week summer workshop to plan the curriculum and to develop methods for a team-teaching approach. The first three days consisted of a nonresidential sensitivity training laboratory. Questionnaires to evaluate the entire summer workshop showed overwhelming positive reaction to the sensitivity group and most participants indicated that it was the most helpful part of the workshop. Follow-up studies a year later included a re-test of the TSCS. Although minimum credence can be placed upon the results because there was no control group, the study points up these conclusions among others:

1. The year was significant both personally and professionally to those involved.
2. As a total group, the self-concept changed in the desirable direction.
3. The kind of self-concept changes which occurred are a result of the kinds of self-concept each teacher brought into the workshop.

Interpersonal relationships In a survey of concerns of beginning teachers, Aspy (1969) refers to Maslow (1954). The gist of this investigation as it pertains to the current study involving teachers is that classroom behavior is motivated by the level of need satisfaction at which the teacher functions. Implications are that expecting a teacher to perform at levels above the one at which he/she currently functions promotes frustration and unhappiness and that those counselors, supervisors, and principals who are interested in helping teachers grow to function at higher levels must begin by meeting the current needs of the teacher. Aspy concluded that many beginning teachers are operating at a survival level (Maslow's safety level) in which they are coping with fear that they may not make it through the school year. At this point in their careers they need to be concentrating on competence--the giving to others. This position of competence (self-esteem) is two stages above safety in Maslow's hierarchy of needs. The need between safety and competency is love and belongingness. This characteristic is most effectively accomplished in the presence of others who share the excitement and understand the concerns of beginning teachers. This also applies to tenure teachers. As Lewin (1947) found, people change their ways

faster in groups than individually. Schutz (1966) has written that people need people--persons to receive from and persons to give to.

Although Yee (1968) concluded that lower-class pupils have fewer potent sources of warmth and support at home, so the role of the teacher as a significant other is greater than with students whose background is middle-class and that teachers' less positive attitudes toward students in lower-class neighborhoods tend to result in less favorable attitudes by students toward teachers, Khan and Weiss (1973) point out that very little direct evidence is available on the influence of teacher attitudes on the school-related affective behaviors of students. One way to study this area is to focus on interpersonal relationships of teachers.

In examining the literature pertinent to interpersonal relationships of teachers, several studies emerged. One study was conducted by Elbert (1969) in which he tested the use of video-tape feedback of sensitivity training groups on self-concept, self-actualization, and interpersonal relationships. In his study his Ss were 24 education students which were divided into two groups (experimental and control) of 12 each. The groups were administered the Personal Orientation Inventory, the Tennessee Self-Concept Scale, and the Fundamental Interpersonal Relations Orientation: Behavior before and after the treatment period which was composed of five-hour sessions three days a week for two weeks. The experimental group was given video feedback while the control group was not. The group leader was the same person for the same groups. The data were

analyzed by Fisher's t-test. The findings included that there were no significant differences globally in the three variables, but in some areas of self-actualization and self-concept significant changes did occur. There were no significant changes resulting from interpersonal relationship assessment. The video feedback group changed on more sub-tests than did the control group. Elbert concluded that lack of significant changes on any interpersonal variables suggests visual feedback of sensitivity training groups as employed by this study is not effective in producing interpersonal relationship orientation change.

Weiss (1970) considers that parents, siblings, peers, and other persons and situations with which the child comes in contact--including teachers--form the major source of the origin and development of attitudes toward self. This constitutes interpersonal relationships and so one of the major responsibilities of the school is to work to change undesirable attitudes, to build upon existing desirable qualities, and to provide appropriate learning experiences to develop adequate interpersonal skills and attitudes toward learning opportunities. This would necessarily include modeling on the part of the teacher.

Gordon (1973) comments on the give and take of interpersonal relationships in this fashion:

> The establishment of feelings of being loved and being able to give love become clearer as self-concept is developed and become key elements in the structure of self . . . Love relationships established early in life influence not only development of values but also sex-role identification. [p. 1222]

Again, the need hierarchy of the teacher and classroom interpersonal relationships, at least theoretically, influence what happens in the classroom. In a study by Collins 93 sixth grade students and their four teachers and 105 fourth grade students and their four teachers from two elementary schools were grouped for learning specific units in math and social studies. The purpose was to investigate the influence of interpersonal compatibility on pupil achievement and teacher and pupil perceptions of their relationship. The pupils and teachers were assigned to the groups on the basis of FIRO-B and FIRO-BC compatibility scores. Additional instruments used included the Social Desirability Rating Scale, Teacher-Pupil Relationship Inventory, and achievement tests in mathematics and social studies. These were written before and after the units were completed. In addition, each teacher was asked to assign a letter grade estimate for each of her students before the unit began and to assign an earned letter grade after the project was completed. The study found no significant support for the general hypothesis of interpersonal need compatibility grouping, although there was more movement toward the desired goals of improved perceptions of each other on the part of both teachers and students, nor was there significant achievement gains in mathematics and social studies for the experimental units studied.

Two studies in the area of interpersonal relationships apply to student-teachers. In each study compatibility was the determinant in creating student-teacher/supervisor dyads. Di Tosto (1968) used

three groups: most compatible, least compatible, and random degrees of compatibility. She found no significant difference among groups. Brabble (1969) posited that there should be a positive relationship in student teaching success and the compatibility of the student-teacher/supervisor dyad. Her findings revealed no significant overall differences in student teaching success and the compatibility of the dyad. One significant difference did appear in the area of control which Brabble interpreted to suggest that the need to succeed in student teaching was more important to the teacher than the need to be independent, responsible and in a position to make decisions.

In summary, the literature regarding student and teacher self-concept was reviewed. Group research including the classroom as a group, teacher in-service groups, and teacher interpersonal relationships has been examined as they pertain to the main hypotheses of this study.

METHOD OF PROCEDURE

To explain the procedures used in this study, information is presented under the following headings: design, variables, treatment, sample, sources of data, and treatment of data. The purpose of this study, affective and cognitive consultation with teachers: effect on self-concept and interpersonal relations, was to assess the effect of group consultation by counselor-consultants with elementary school teachers on the self-concepts of these teachers and their students in the Boone Community School District. Implicit in the construct of self-concept is interpersonal relations, interaction in particular. The method of procedure is explained in the appropriate topics in the order indicated above.

Design

The design for the study was the nonrandomized control group pretest and posttest design (Van Dalen, 1966). In the study were two groups that received different treatments and a control or no treatment group. Assignment to groups was made following the pretest. At the conclusion of the treatment period, the posttest was administered. Changes as assessed by the difference when the pretest was subtracted from the posttest score were analyzed for significance.

Nonrandomized control pretest and posttest design

	Pretest	Treatment	Posttest
Experimental Group$_1$	T_{1E_1}	X_1	T_{2E_1}
Experimental Group$_2$	T_{1E_2}	X_1	T_{2E_2}
Experimental Group$_3$	T_{1E_3}	X_2	T_{2E_3}
Experimental Group$_4$	T_{1E_4}	X_2	T_{2E_4}
Control Group	T_{1C}		T_{2C}

where

X_1 = Treatment I: Experimental Groups 1 and 2

X_2 = Treatment II: Experimental Groups 3 and 4

T_{1E_1} = Pretest: Experimental Group 1

T_{1E_2} = Pretest: Experimental Group 2

T_{1E_3} = Pretest: Experimental Group 3

T_{1E_4} = Pretest: Experimental Group 4

T_{1C} = Pretest: Control (no treatment) Group

T_{2E_1} = Posttest: Experimental Group 1

T_{2E_2} = Posttest: Experimental Group 2

T_{2E_3} = Posttest: Experimental Group 3

T_{2E_4} = Posttest: Experimental Group 4

T_{2C} = Posttest: Control (no treatment) Group

Variables

Since the purpose of the study was to assess the effect of specific group procedure experiences on the self-concept of elementary school teachers and subsequently on the self-concepts of their students, on the verbal interaction within treatment groups and within the classrooms, and on the interpersonal relations orientation of teachers, the independent variable was considered to be the treatment experienced. The difference when the pretest score was subtracted from the posttest scores and the difference when the early audio-tape group ratings were subtracted from the later audio-tape group ratings were considered the dependent variable. More detailed explanation of independent and dependent variables are discussed under appropriate headings.

Treatment

From the teacher volunteer sample of twenty, five groups were formed. Four of the groups received one of two different treatments. The fifth group was the control group and received no treatment. Each experimental group consisted of four teachers and two counselor-consultant group leaders. The counselor-consultants were the same

persons for all experimental groups. However, there was one counselor-consultant for replacement when needed. Thus, there were four experimental groups who received one of two treatments and one control group which received no treatment.

Treatment I

Experimental groups one and two participated in Dinkmeyer's "C" group, which combines the didactic and the experiential. The rationale and procedure for "C" groups are detailed in Appendix B. The "C" group approach, being both didactic and experiential, is a holistic approach. "C" group was so designated by Dinkmeyer (1971) because factors which make it effective begin with the letter c: collaborating, consulting, clarifying, communicating, being cohesive, confronting, being concerned, caring, being confidential, being committed to and being willing to change. These components encompass the affective domain, so the "C" group is also referred to as the affective treatment group.

Treatment II

Experimental groups three and four participated in the researcher-developed study groups, essentially cognitive, dealing with the underlying theory and application of behavior modification in the classroom. Participants were taught to categorize stimulus and response and to use these to manipulate behavior. Procedure for this treatment is found in Appendix C.

Control group

Group five, the control group, was the no treatment group.

The treatment period extended over ten consecutive weeks with snow or Easter vacations interrupting the nine after-school group meetings, which were an hour and a half in length for each group each week. In terms of the school year, the study took place the last half of the third quarter and the first half of the fourth quarter of the academic year. All groups participated in the pre-test and posttest activities.

Thus, the treatment phase of the study consisted of an affective ("C") group experience, a cognitive (behavior modification study) group experience, and a control (no treatment) group.

Sample

The research was conducted in five of the six public elementary schools of the Boone Community School District. The sample was selected from teachers of students in grades three, four, and five for the school year 1972-1973. Of the twenty-nine teachers who were elegible, twenty volunteered. Students who volunteered were included if they met the criterion of being in attendance on the days when the pretest and posttest were given. Thus 398 students in grades three, four, and five constituted the student sample.

Of the twenty teachers who participated in the study, twelve were between the ages of twenty-one and thirty years, three were between thirty-one and forty, one was between forty-one and fifty,

three were between fifty-one and sixty, and one was over sixty. All the participants were female as no male teachers were available in the total population of the grades included in the study. In years of teaching experience, twelve teachers had fewer than five years experience and three teachers had more then twenty years of experience. Two teachers held master of education degrees. Two teachers had baccalaureate degrees plus at least fifteen additional graduate hours. The remaining teachers held bachelor of arts or bachelor of science degrees.

Sources of Data

To assess the effects of the treatments, two types of data were collected: data from instrumentation and data from coding verbal interaction. A discussion of the sources of data follows.

Instrumentation

The instrument used to assess student self-concept was the Piers-Harris Children's Self-Concept Scale (P-H). Teacher self-concept was assessed by the Tennessee Self-Concept Scale (TSCS). To assess teacher interpersonal relations orientation the Fundamental Interpersonal Relations Orientation: Behavior (FIRO:B) was employed. Each instrument appears in Appendix D.

Piers-Harris Children's Self-Concept Scale The Piers-Harris Children's Self-Concept Scale, "The Way I Feel about Myself," is a self-report instrument for children that can be used from grades three through twelve. The Scale was developed primarily for research

on the development of children's self-attitudes and correlates of these attitudes. The items were developed from Jersild's collection of statements about what children liked and disliked about themselves. Ninety children from grades three, four, and six in a small district provided the sample. The items are simply declarative statements such as "I can be trusted," "I worry a lot," and "I am an important member of my class." The items are answered "Yes" or "No."

Most of the reliability data on the Piers-Harris Scale come from the original standardization study (Piers and Harris, 1964) in which coefficients ranging from .78 to .93 were found. Stability coefficients after two and four months ranged from .71 (Piers and Harris, 1964) to .77 (Wing, 1966, as cited in Piers (1969, p. 12)).

Content validity was originally based on Jersild's qualities that children reported they liked or disliked about themselves. By the process of factor analysis of items, nondiscriminating items were dropped. Therefore, not every area of Jersild's qualities are present to the same degree. The emphasis is on his last two groups--"Just Me, Myself" and "Personality, Character, Inner Resources, Emotional Tendencies."

Concurrent validity rests on studies by Mayer, 1965, as cited by Piers (1969, p. 7), comparing the P-H Scale with scores on the scores on the Lipsitt's Children's Self-Concept Scale for a sample of 98 special education students, which resulted in a .68 correlation; Cox's (1966) comparisons with big problems checked on the SRA Junior Inventory by 97 special education students, which resulted in

-.64 correlation; Cox's (1966) work found a correlation of .43 between teacher rating of socially effective behavior and the P-H Scale and also found a correlation of .31 between peer rating of socially effective behavior and the Piers-Harris Scale.

The Tennessee Self-Concept Scale To indicate the teacher's perception of self, the TSCS (Fitts, 1965) was administered. This scale has one hundred self-reference items. An example of an item is "I see good points in all persons that I meet." The subjects then rate each item according to the way they see themselves by using a five-point scale ranging from completely false to completely true. The test has been standardized with persons from twelve to sixty-eight years in age with educational range from sixth grade to doctor of philosophy. The test-retest data over a two week period using college students resulted in reliability coefficients ranging from .67 to .91 for the various sub-scales. Validity rests upon the extensive work done by the author and others. The scale provides a global self-concept scale and eight specific scaled scores dealing with different aspects of the self. The definitions of the scales are:

Total positive scores--reflects the overall level of self-esteem

Self-satisfaction--individual describes how he feels about what he sees of himself

Identity--individual describes his basic identity; what he is as he sees himself

Moral-ethical self--individual describes moral worth, relationship with God, feelings of being a good or a bad person

Behavior--individual's perception of his own behavior

Personal self--individual describes his sense of personal worth; his evaluation of his personality

Physical self--individual presents views of his body, health, skills, and sexuality

Family self--reflects person's feelings of worth and value as a family member

Social self--reflects person's worth in social interaction.

Fundamental Interpersonal Relations Orientation: Behavior

To assess teacher perception of interpersonal behavior, the FIRO-B was used. The FIRO Scales attempt to assess how an individual characteristically relates to other people. FIRO-B assesses at the behavior level. The instrument consists of 54 self-reference items. Parts of the items are exemplified by "I try to be with others" which the subjects rate how they see themselves on a six-point scale ranging from usually to never. The rest of the items are similar to "I try to be friendly to people" on which the subjects rate themselves on a six-point scale ranging from most people to nobody.

The FIRO:B was constructed using the Guttman technique for cumulative scale analysis.

The dimensions of FIRO theory are Inclusion (I), Control (C), and Affection (A). These are defined behaviorally by Schutz (1967) in this manner:

I: The interpersonal need for inclusion is the need to establish and maintain a satisfactory relationship with people with respect to interaction and association.

C: The interpersonal need for control is the need to establish and maintain a satisfactory relationship with people and with respect to control and power.

A: The interpersonal need for affection is the need to establish and maintain a satisfactory relationship with others in respect to love and affection.

The FIRO:B scales are six in number: expressed and wanted behavior in the areas of inclusion, control, and affection. The scales were developed on about one thousand subjects, mostly college students plus a few Air Force personnel. The test has internal consistency with a mean coefficient of .94. The reliability of test-retest coefficients among Harvard students over a one month period is .76. The FIRO:B rests its claim to content validity upon the theory underlying the use of Guttman scales. The results of the studies to date indicate that making general norms for the FIRO:B is impractical.

For this study, four instruments were used. To assess self-concept the Piers-Harris Children's Scale of Self-Concept was administered to students. Teacher self-concept was assessed by the Tennessee Self-Concept Scale while teacher interpersonal relations orientation was assessed by the FIRO:B at the behavior level.

Coding

To assess possible effects of the treatments upon each group in the area of verbal interaction, the Flanders Interaction Analysis System was used to examine classroom tape recordings of social studies discussions. For analysis of the treatment group interaction, the Hill Interaction Matrix was applied. A discussion of these systems and the rater training procedure appears below.

The Flanders Interaction Analysis System The Flanders system is concerned with verbal behavior in the classroom only as it can be observed. Observed behavior has higher reliability than nonverbal. It is assumed that verbal behavior of an individual is an adequate sample of his total behavior (Amidon and Flanders, 1971).

In essence, the Flanders system is a ten-point classification schema in which all statements are categorized with one of three major sections: teacher talk, student talk, or silence or confusion or anything other than teacher talk or student talk. Teacher talk is sub-divided into indirect and direct teacher participation. Teacher talk is further structured to specify as indirect influence four observation categories: (1) accepting feeling, (2) praising and encouraging, (3) accepting ideas, and (4) asking questions. Direct influence has three components: (5) lecturing, (6) giving directions, and (7) criticizing or justifying authority. Student talk is divided into only two categories: (8) responding to teacher and (9) initiating talk. All categories are mutually exclusive, yet together they are totally inclusive of all verbal interaction occurring in the classroom (Amidon and Flanders, 1971). The categories in the Flanders system are summarized in Appendix E.

To apply the Flanders system, the trained rater records the category number of the talk at the rate of one entry every three seconds. This is done in columns, thus preserving sequence. These observations are tabulated in a matrix which consists of ten row, ten column table and entries are made by pairs as indicated below:

	(10, 6)	1st pair	silence giving directions
2nd pair	(10, 7)	3rd pair	silence criticizing or justifying authority
4th pair	(6, 1)	5th pair	giving directions accepting student feeling
6th pair	(1, 4)	7th pair	accepting student feeling asking a question

To record the first pair, the tabulator would locate the cell identified row then, column six and tally therein, since the first number is the row and the second number indicates the column. From the completed tally a description of classroom interaction can be developed showing what percent of the total interaction during the observation period recorded was devoted to each category of verbal communication.

The validity of the Flanders system rests in the wide use by researchers, by teacher educators, by those responsible for in-service opportunities for teachers, and by counselors. Amidon and Hough (1967) offered their opinion of the Flanders system by stating, "All categories are mutually exclusive of all verbal interaction occurring in the classroom."

For the study being reported, raters for the classroom tapes were two graduate students who had been trained by staff members at Iowa State University. They then prepared for analyzing the tapes by using the training tapes developed by Amidon and Amidon (1967). Prior to beginning the analyses, a sample tape demonstrating the type of classroom discussion involved in the study was evaluated by these raters. The raters used in this study were used in Olson's

(1973) study. As in Olson's study the interaction was of moderate agreement as specified by Williams (1972). The interrater reliability coefficient was .78 while the intrarater (consistency over time) coefficient was .86 for one rater and .78 for the other.

Rater reliability for classroom and group interaction was computed by using the method developed by Scott (1955). This method is represented by the formula

$$\pi = \frac{Po - Pe}{100 - Pe}$$

when

π = coefficient of reliability

Po = percent of agreement between raters

Pe = percent of agreement between raters due to chance.

To compute the coefficient of reliability (π), the percent of agreement between raters (po) and the percent of agreement between raters due to chance (pe) must be computed first. To determine Po, tallies for each observer in each category are recorded in columns 2 and 3 on a form like this:

Category	A	B	A%	B%	% Diff.	(Ave.%)^2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
Total							

Next, the tallies in column two are added to find the total number of tallies made by Observer A. Then the number of tallies in each eategory is divided by the total number of tallies. The quotient is converted to percent and the result placed on the appropriate row of column 4. This process is repeated for column three with the results being placed appropriately in column 5.

To find the percent of difference, each category percent in column five is subtracted from the corresponding percent in column 4 and the differences are summed to give a total difference which is used in computing Po.

Pe (percent of agreement due to chance) is calculated by averaging the tallies of both observations in each category. These are returned to decimal form, squared, and recorded in column 7. This column is then summed, resulting in the percent of agreement due to

chance.

By appropriately substituting the values calculated into the formula

$$\pi = \frac{Po - Pe}{100 - Pe}$$

Scott's coefficient of reliability is determined.

Flanders (Amidon and Hough, 1967) suggests that a Scott Coefficient of .85 or higher is a reasonable level of performance. Williams (1972) considers the following interpretation to be feasible:

.60 - .75	moderate agreement
.76 - .90	good agreement
.91 - .99	High agreement

The interrater reliability for this study was of .78 agreement. When intrarater reliability over time was averaged, the agreement was .82.

Hill Interaction Matrix The Hill Interaction Matrix (HIM) is a matrix with two interacting scales: content and work style. Twenty cells are contained in the matrix with four content categories and five work categories. One essential aspect of HIM is that both determinants are concerned with the characteristic modes of styles of interaction in therapy groups, and the twenty cells each typify twenty recognizable and familiar patterns of group behavior (Hill, 1965). The content properties of the HIM are topic, group, personal, and relationship. The work components of the HIM are responsive, conventional, assertive, speculative, and confrontive. The scoring

matrix is found on the following page. Since HIM was developed for therapeutic groups and the responsive work-style is not indicated in the matrices dealing with persons who are not institutionalized, no responsive work-style categories are identified in groups of non-institutionalized persons.

To establish reliability for HIM, Hill investigated three judges and three groups using percentage of agreement, product-moment, and rank order correlations. These results were then compared with percentage and coefficients of each of the three methods of reporting with other studies found in the literature. The results indicated that compared with percentage and product moment studies, the HIM was at least adequate with 70% and .76 correlation. In rank order the coefficient .90 was termed highly reliable. To further examine the reliability, Hill devised a card sort to be used with four judges. The average percentage of agreement for one set was 90% and 92% for a different card sort. From these card sorts came the training decks Mark I and Mark II.

The validity of the HIM was established by Hill by selecting group therapy session tape recordings which represent seven theoretical orientations. Approximately one hundred tapes were examined to select the seven most representative of these approaches to interaction in group setting: Group Analytic, Neo-Psychoanalytic, Pure Psychoanalytic, Nondirective, Didactic, Rational, and Guided Group Interaction. Based on these analyses, Hill concluded that the HIM yields reliable indices of group interaction which produce meaningful

and significant descriptions of total group operation so that groups can be systematically compared. The comparison possibilities include sub-group phenomena, movement within a session or over a series of sessions, therapist intervention, and individual consonance with the rest of the group (Hill, 1965).

To utilize the HIM, raters analyze each transmission for placement in the appropriate content and work cell. The tallies are then counted and weighted according to the value system developed for the HIM on the basis of Member-Centeredness, Interpersonal Threat, and Patient-Therapist Role Taking. The weights of the cells are delineated in Appendix F.

In the study being presented here, two graduate students were raters. Both had been trained by Iowa State University staff members using the Mark I and Mark II training decks. Review of the training decks and a practice tape of a typical group session were used before the raters analyzed tapes two and eight for each experimental group. Reliability was established by using the Scott coefficient formula. Interrater reliability coefficient was .95 while the intrarater reliability coefficient for one rater was .60 and .65 for the other.

Coding as a source of data for this study consists of the Flanders Interaction Analysis System for classroom analysis and the Hill Interaction Matrix for treatment group session interaction analysis.

Treatment of Data

Thus far the design, the variables, the treatment, the sample, and the sources of data used in this study have been presented. This section concerns how the data was treated. Two forms of data were gathered: numerical scores from self-report group administered scales and two forms of coded scores of group verbal interaction--the Flanders Interaction Analysis System for the verbal interaction within the classroom and the Hill Interaction Matrix for verbal interaction within each teacher treatment group. Analysis of variance was the statistical technique employed in evaluating the group administered data. The analysis of interaction in groups was clinical/statistical. Explanation of these procedures and approaches follows.

To research the events in groups, determining the form of analysis is a complex situation. In making that decision there are three rather broad approaches that one may use: clinical, statistical, and clinical/statistical (Gibbard, Hartman, and Mann, 1974). Explanation of these approaches follow.

In the clinical approach the emphasis is upon a unifying view and the methods involved tend to be subjective, intuitive, and theoretical. Case studies and anecdotal observations are examples of the clinical approach. Those who ascribe to the clinical approach consider the global and impressionistic methods employed to be safeguards for unconscious mechanisms and the intricacies of human behavior. Bennis and Shepard (1956), Bion (1959), and Slater (1966) are best examples of the clinical approach. Critics of clinical

methodology question constructs such as sub-conscious and urge quantification to establish verification for their assertions.

The statistical approach to group analysis systematically collects much data through coding interaction in groups. This procedure attempts to statistically identify the pattern of actions in group experiences by reducing group events to their simplest form, quantifying these events, and, once coded, treating them statistically for relevance, significance, and predictive value. The emphases of the coding vary from analysis of verbal interaction in assessing group development (Bales, 1950), role differentiation (Dunphy, 1964, 1966, 1968), individual needs (Schutz, 1966), and member activity (Wechsler and Reisel, 1959; Stock and Thelen, 1958) among others. The value of the statistical approach is that content analysis provides a unit appropriate for statistical treatment. However, no allowance has been made for the context and connotation of the group interaction being coded.

The third approach is the clinical/statistical approach which attempts to reconcile the two approaches by incorporating the strengths of each into a more meaningful methodology, one which respects both the intuitiveness of the clinician as well as the precision of the statistician. The clinical/statistical approach attempts to utilize quantitative techniques and clinical inferences in analyzing groups. The work of Gibberd and Hartman (1973) is a good example of this approach. Others include Mann (1966, 1967), Whitaker and Lieberman (1964), and Stock and Thelen (1958). One

advantage of this approach lies in the motivation for expanding group effectiveness that results from sharing experiences. A disadvantage to the clinical/statistical approach is that it may lead to depersonalization and preoccupation with quantification.

This study uses two of these systems, the statistical and the clinical/statistical approaches. The utilization of the statistical approach is presented first with the clinical/statistical to follow.

Statistical approach

The statistical approach was used for assessing the significance of the differences on the posttest minus pretest results of the instruments used for assessing student self-concept, teacher self-concept, teacher interpersonal behavior, and teacher interpersonal feelings. Treatment of these data follows in the order indicated.

Student self-concept For comparing differences among treatments on student performance, the structure of the experimental situation was:

1. 3 treatment groups

   I = "C" (affective group
   II = Behavior modification (cognitive) group
   III = Control (no treatment) group

2. Within treatment groups (I, II, III) were nested in two groups (Experimental 1 1, Experimental 1 2) and (Experimental 2 1, Experimental 2 2)

   E_{11} E_{12} E_{21} E_{22}

3. Within treatment groups and experimental groups were four teachers. This situation can be pictured as

T-I		T-II		T-III
G-1	G-2	G-3	G-4	G-5
T T T T	T T T T	T T T T	T T T T	T T T T
1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

This resulted in a total of twenty teachers, each with a classroom group of children, representing 398 students who were administered the Piers-Harris Children's Self-Concept Scale, pre- and post. The posttest minus pretest difference score was analyzed for the six subscales and the total score.

The nature of the above experimental situation dictated that a hierarchial analysis of variance design be used. The NESTED procedure performs analysis of variance from an experiment with a hierarchial design. Each effect is assumed to be a random effect. Since the NESTED procedure produces estimates of variance components, it is more appropriate for analyzing data from an experiment with a hierarchial design involving random effects than is the ANOVA procedure (Service, 1973).

The model representing this design as indicated by Winer (1971) was:

$$Y_{ijkl} = \mu + \alpha_i + \beta_{j(i)} + \gamma_{k(ij)} + e_{l(ijk)}$$

where

$i = 1, 2, 3$

$j = 1, 2$, for $i=1, 2$

$j = 1$ for $i=3$

$k = 1, 2, 3, 4$ for $i=1, 2$

$k = 1$ for $i=3$

$l = 1 \ldots 35$ for $k=1, 2, 3, 4$

$l = 1 \ldots 35$ for $k=1$

and

Y_{ijkl} = individual's difference score

μ = mean population differences

α_i = effect due to treatment

$\beta_{j(i)}$ = effect due to jth group

$\gamma_{k(ij)}$ = teacher nested within treatment and experimental group

$e_{i(ijk)}$ = random error

The differences will be reported in the following manner:

Analysis of variance: variable

	Source of variation	df	Sum of squares	Mean square	F-ratio
1)	Treatment	2	SS_T	$SS_T/2=a$	a/b
2)	Group within treatment	2	SS_G/T	SSG/T/2=b	b/c
3)	Teacher within treatment and group	15	SS_t/G	SSt/G/15=c	c/d
4)	Experi-mental error	378	SS_e	$SS_e/378=d$	
	Total	397			

The test of interest in the present experiment was the test determining if any difference among treatment groups exists. From the table above, that test shows the relationship between the total mean square and the group within treatment mean square with $T_{2,2}$ degrees of freedom. The computer user program Statistics Analysis Systems (SAS) was used to compute the relevant F-values for the NESTED design model. The procedure regression in the SAS utilizes dummy variables to calculate the appropriate sum of squares for the analysis of variance design under consideration.

While the variables considered in regression equations usually are values found in continuous range, sometimes a factor of two or more

distinct levels is introduced. When this is the case, values must be assigned to these variables in order to take care of the fact that each of these variables may have separate deterministic effects on the outcome. Such variables are called dummy variables and are unrelated to any physical levels that might exist in the factors themselves (Draper and Smith, 1966). These dummy variables exist only as long as the regression procedure is operating.

In this study, two different treatments were provided. To assess change in self-concept due to treatments, dummy variables were assigned as follows:

1 = Treatment I (Affective)

-1 = Treatment II (Cognitive)

0 = All others

The format for the dummy variables that was used in the procedure regression for this experiment is indicated in Appendix G. Seven tests using this model were carried out on the six sub-scales and the total score; the criterion variable was the posttest - pretest difference.

Teacher performance Teacher performance was analyzed for 16 factors which were assessed by posttest minus pretest difference scores. Of these, nine relate to the Tennessee Self-Concept Scale while seven relate to the FIRO:B.

The structure of this experiment consisted of three groups of teachers. Group I, the "C" or affective group, had eight members;

Group II, the cognitive group, had eight members; Group III, the control or no treatment group, had four members. The data for each of the 16 items were treated by single classification analysis of variance with the criterion being the scale difference when the pretest score was subtracted from the posttest score. The model for this analysis, single classification analysis of variance, is given by Kirk (1968) as:

$$Y_{ij} = \mu + \alpha_i + e_{ij}$$

when

Y_{ij} = individual score

μ = mean of the total group

α_i = the treatment effect

e_{ij} = experimental error.

The resulting analysis of variance for each variable will appear.

Analysis of variance: variable

Source	df	Sum of squares	Mean square	F-ratio
Treatment	2	Treatment	Treatment	$\frac{\text{Treatment Mean Square}}{\text{Error Mean Square}}$
Error	17	Error	Error	
Total	19			

In addition, descriptive statistics for all 16 items are included in Table 24. These relate to the mean difference and the mean standard deviation. Pretest and posttest raw scores are contained in Appendix H.

The user program Statistical Package for the Social Sciences (SPSS) was used to arrive at the approximate F-values indicated above. Subprogram ONEWAY computes single classification analysis of variance and was incorporated into the SPSS system in 1973. Subprogram ONEWAY also allows one to make independent contrast calculation on the treatments to determine where significant differences exist if the overall F value is significant (Contrast Coefficient Matrix). In the present study, three treatment groups were used, indicating the need for two independent contrasts. The contrasts used were:

(1) Group I versus the average of Group II and Group III (1, -.5, -.5). For example, for this contrast, the following null hypothesis would be tested:

$$H_o X_1 - \frac{X_2 + X_3}{2} = 0$$

(A pooled t-test was used to determine whether the hypothesis is accepted or rejected).

(2) Group II versus Group III (0, 1, -1).

Classroom interaction Classroom interaction was analyzed for 12 interaction behaviors which were assessed by using the Flanders Interaction Analysis System to quantify audio-tapes from which posttest minus pretest differences in percent for each behavior were analyzed.

In structure, the experiment consisted of three groups of teachers. The eight teachers in Group I, the "C" or affective group, provided one pre-treatment and one post-treatment audio-tape for a social studies discussion for a total of eight posttest tapes and eight pretest tapes. The teachers in Group II, the cognitive group, provided nine post-treatment and nine pre-treatment tapes. One teacher had a combination third and fourth grade classroom which was managed as separate classes; therefore two tapes were submitted by this teacher. The four teachers in Group III, the no-treatment group, recorded four post-treatment and four pre-treatment tapes.

The data for each of the twelve interaction behaviors were treated by single classification analysis of variance using the criterion the difference in percent of total interaction when pre-test percent was subtracted from posttest percent for each behavior identified.

The model for single classification of variance used is given by Kirk (1968). This procedure is fully explained in the treatment of data for teacher performance.

The statistical treatment of data for this study involved a hierarchial analysis of variance using dummy variables for the student self-concept performance using the posttest minus pretest difference as the criterion variable. Teacher performance also used the posttest minus pretest difference as the criterion variable. The statistical procedure was single classification analysis of

variance with independent contrasts showing where any significant differences were. The same procedure was used to treat the data for classroom interaction tapes.

Clinical/statistical

The statistical treatment of data for this study has been developed. There remains the clinical/statistical treatment of data reporting the findings of this experiment. The clinical/statistical treatment of data procedures is explained next with teacher self-concept first, followed by treatment group interaction.

Teacher self-concept To assess teacher self-concept the self-report instrument Tennessee Self-Concept Scale was administered before the treatment phase began and after the treatment was completed to all teachers who participated in the study. For the purpose of analyses all subjects were classified into categories in three different dimensions: self-esteem, self-actualization, and change in self-actualization. Five groups were identified as follows:

Group	Classification
1	Defensive Position (DP). (All subjects with DP scores of 65 or higher--80th percentile--and/or Self-criticism Scores of 28 or lower--more than one standard deviation below the mean)
2	High Self-Esteem. (Other subjects whose Total Positive Scores were 364 or higher; that is, ½ standard deviation above the mean).
3	High Average Self-Esteem. (Subjects with Total Positive Scores from 346 through 363).

4 Low Average Self-Esteem. (Subjects with Total Positive Scores from 333 through 363).

5 Low Self-Esteem. (Subjects with Total Positive Scores below 333).

All subjects were categorized into one of the five groups on both pretest and posttest, retaining treatment group membership. These findings are reported in graphic form as follows, form and findings consistent with Fitts (1973a).

Group interaction Group interaction was coded for sixteen interaction behaviors as indicated in the HIM. The results are reported in change in percent for each interaction. The interaction cells have been weighted by Hill and are reported in percent of change between group session two and group session eight using audio-tape recordings for both affective and cognitive treatments.

In structure, this phase of the experiment consisted of two treatments composed of sixteen teachers. Eight of the teachers participated in one of two "C" group (affective) treatment groups. Eight other teachers participated in one of two behavior modification (cognitive) treatment groups. A segment of the tape for sessions two and eight for all four was analyzed using the HIM. The segment analyzed was the same for all groups: the fifteen minutes immediately following the turning of the tape beginning with the first complete transmission.

After quantifying the interactions on the basis of content and work style, the tallies were tabulated according to the weights established by Hill, which are reproduced in Appendix F. These

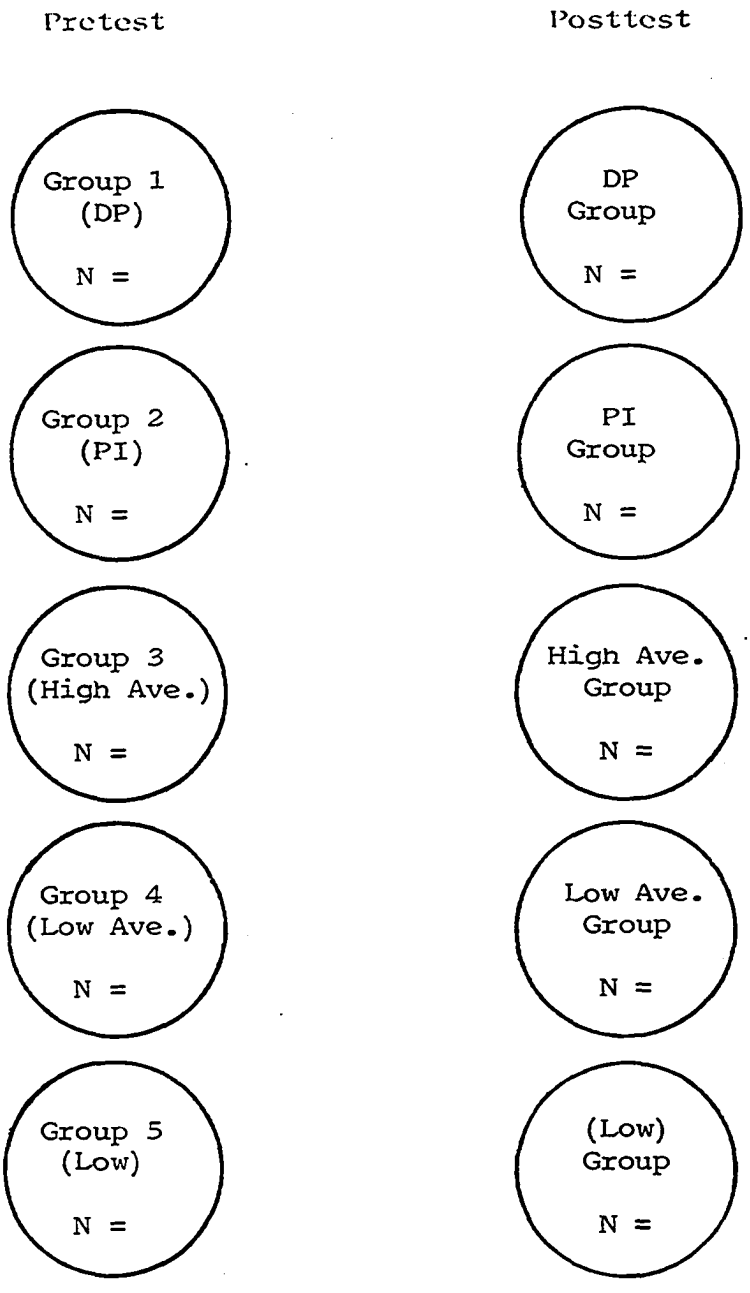


Figure 3. Pretest to posttest changes in self-esteem as a function of initial self-esteem

tallies were then arranged to show the direction of change in the percent of interaction for each cell within the analyzed segment. Hill (1971) reported that studies using the HIM demonstrate that movement proceeds from the upper left quadrant to the lower right quadrant of the matrix (Ahearn, 1969; Anderson, 1964; Garner, 1960; Liebroder, 1962). Sample size for this study did not lend itself to tests of significance.

In summary, this study concerned the effect on interaction and self-concept produced by cognitive and affective consultation with teachers. The design was nonrandomized control group posttest minus pretest design. The dependent variable was the posttest minus pretest difference. The independent variables were the treatments: affective, cognitive, and no-treatment. The sample studied was composed of twenty volunteer teachers and their students in grades three, four, and five of the Boone Community Schools for the school year 1972-1973. Data was obtained from instrumentation and from coding interaction in the classroom and in small group settings. Statistical treatment employed was hierarchial analysis of variance using dummy variables, single classification analysis of variance with contrast calculations for detecting the location of significant differences. Clinical/statistical treatment identified movement within the quantification matrix used.

The findings of this study are presented in the following section. They will appear in the order in which the null hypotheses were presented: teacher self-concept, student self-concept,

interpersonal relationships of teachers, group interaction of teachers, and classroom interaction of teachers and students.

THE FINDINGS

This investigation purported to examine the effect of specific group treatment experiences for teachers on their self-concepts and those of their students, on the verbal interaction within the classroom and group sessions, and on the interpersonal relations orientation of these teachers. Five hypotheses were developed from the stated problem and these five were sub-divided into 20 specific hypotheses for the purpose of analysis.

To present the findings relevant to each null hypothesis and its sub-hypotheses, the hypothesis will be stated with verbal and tabular presentation of the analysis of results following the statement. A significance level at or beyond the .05 level was necessary for rejection of a specific null hypothesis. When significance was found, the contrast coefficient will be reported. When appropriate, the statistical analysis will be followed by a clinical/statistical report of the data.

Ho_1: There is no significant difference in self-concept, as assessed by the TSCS, of teachers who experienced different consultation groups.

There was insufficient evidence to reject the null hypothesis. An F-ratio of 3.59 was required for significance at the .05 level. Results of the analysis are presented in Table 1.

Table 1. Analysis of variance: total positive scale

Source of variation	d.f.	Sum of squares	Mean square	F-ratio
Between	2	399.175	199.5874	1.084
Within	17	3128.625	184.0368	
Total	19	3527.799		

Ho_{1a}: There is no significant difference between identity, as assessed by the TSCS, of teachers who experienced different consultation groups

Analysis of the data resulted in insufficient evidence to reject null hypothesis 1a. For significance at the .05 level, an F-ratio of 3.59 was required. Results of this analysis are presented in Table 2.

Table 2. Analysis of variance: identity sub-scale

Source of variation	d.f.	Sum of squares	Mean square	F-ratio
Between	2	15.375	7.687	.277
Within	17	472.625	27.801	
Total	19	488.000		

Ho_{1b}: There is no significant difference, as assessed by the TSCS, in self-satisfaction of teachers who experienced different consultation groups.

There was insufficient evidence to reject the null hypothesis. An F-ratio of 3.59 was necessary for .05 significance. Results of this analysis appear in Table 3.

Table 3. Analysis of variance: self-satisfaction sub-scale

Source of variation	d.f.	Sum of squares	Mean square	F-ratio
Between	2	255.05	127.52	1.926
Within	17	1125.5	66.2059	
Total	19	1380.549		

Ho_{1c}: There is no significant difference in behavior, as assessed by the TSCS, of teachers who experienced different consultation groups.

There was insufficient evidence to reject the null hypothesis. At the .05 level of significance, an F-ratio of 3.59 was needed. Table 4 shows the results of this analysis.

Table 4. Analysis of variance: behavior sub-scale

Source of variation	d.f.	Sum of squares	Mean square	F-ratio
Between	2	92.8	46.4	1.716
Within	17	459.75	27.04	
Total	19	552.549		

Ho_{1d}: There is no significant difference in physical self, as assessed by the TSCS, of teachers who experienced different consultation groups

There was insufficient evidence to reject the null hypothesis. An F-ratio of 3.59 was necessary for significance at the .05 level. Table 5 presents the results.

Table 5. Analysis of variance: physical self sub-scale

Source of variation	d.f.	Sum of squares	Mean square	F-ratio
Between	2	142.7	71.35	2.494
Within	17	486.25	28.602	
Total	19	628.95		

Ho_{1e}: There is no significant difference, as assessed by the TSCS, in the moral-ethical self, of teachers who experienced different consultation groups.

Analysis of the data gathered to test null hypothesis 1e resulted in rejection of the null hypothesis. An F-ratio of 3.59 was required for rejection at the .05 level of significance. Table 6 depicts these results.

Table 6. Analysis of variance: moral-ethical sub-scale

Source of variation	d.f.	Sum of squares	Mean square	F-ratio
Between	2	79.075	39.537	4.333*
Within	17	155.125	9.125	
Total	19	234.2		

*p = 0.05 (F > 3.59).

For identifying the source of difference, the Contrast Coefficient Matrix was used. When the affective group mean was contrasted with the combined means of the cognitive and control group, the t-value of 2.920 with .01 probability indicated that the affect group mean was different from that of the mean of the combined cognitive and control groups. The contrast of the cognitive versus control means resulted in a t-value of .270 with .79 probability. Thus, the source of difference was with the affect group.

Ho_{1f}: There is no significant difference in personal self, as assessed by the TSCS, of teachers who experienced different consultation groups.

There was insignificant evidence to reject the null hypothesis. An F-ratio of 3.59 was needed for rejection at the .05 level of significance. Results are depicted in Table 7.

Table 7. Analysis of variance: personal sub-scale

Source of variation	d.f.	Sum of squares	Mean square	F-ratio
Between	2	41.575	20.787	1.050
Within	15	336.625	19.801	
Total	19	378.200		

Ho_{1g}: There is no significant difference in family self, as assessed by the TSCS, of teachers who experienced different consultation groups.

Analysis of the data gathered did not result in rejection of null 1g. An F-ratio of 3.59 at the .05 level of significance was necessary for rejection. Table 8 presents the results.

Table 8. Analysis of variance: family sub-scale

Source of variation	d.f.	Sum of squares	Mean square	F-ratio
Between	2	77.175	38.587	2.718
Within	17	241.375	14.198	
Total	19	318.549		

Ho_{1h}: There is no significant difference in social self, as assessed by the TSCS, of teachers who experienced different consultation groups.

There was insufficient evidence to reject the null hypothesis. To be significant at the .05 level, an F-ratio of 3.59 was needed. Table 9 presents these results.

Table 9. Analysis of variance: social sub-scale

Source of variation	d.f.	Sum of squares	Mean square	F-ratio
Between	2	46.050	23.025	2.481
Within	17	157.750	9.279	
Total	19	203.800		

Thus far the statistical data from analysis of variance procedures regarding teacher self-concept has been presented. At this

point clinical/statistical procedure for analyzing differences between pretest and posttest will be considered. This consists of tracing the individual change in position relative to classifications of defensive position (D.P.), high self-esteem (P.I.), high average self-esteem (Hi.Av.), low average self-esteem (Low Av.), and low self-esteem (Low Group) as determined from TSCS scales. Figure 4 presents the direction of change in self-esteem in the affective treatment group. Figure 5 shows the change in self-esteem in the cognitive treatment group. Figure 6 indicates the change in self-esteem in the control group.

The finding from this technique indicate that the affective treatment did have a positive effect upon the individuals in that group. Half the individuals participating in this treatment moved in the direction of higher self-esteem while three-fourths of the individuals in both the cognitive and control groups showed no change. Desirable change moved in the direction of higher self-esteem. Undesirable change moved in the direction of lower self-esteem. Questionable change indicated unclear direction of movement. The treatment interventions appear to have had impact worthy of note and the effects were variable both across individuals and groups. These findings are highlighted in Table 10.

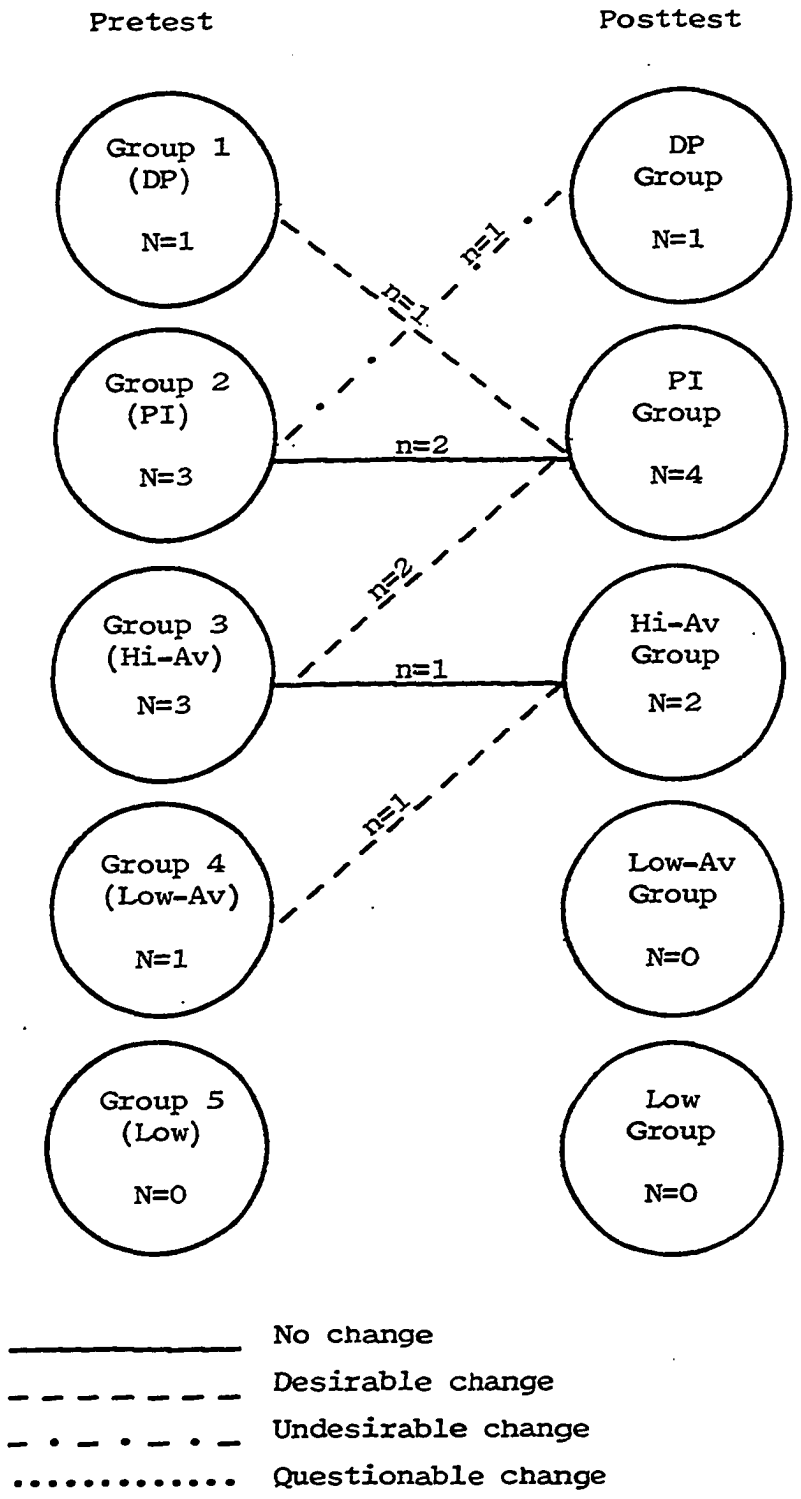


Figure 4. Vector analysis: affective treatment on self-esteem measure

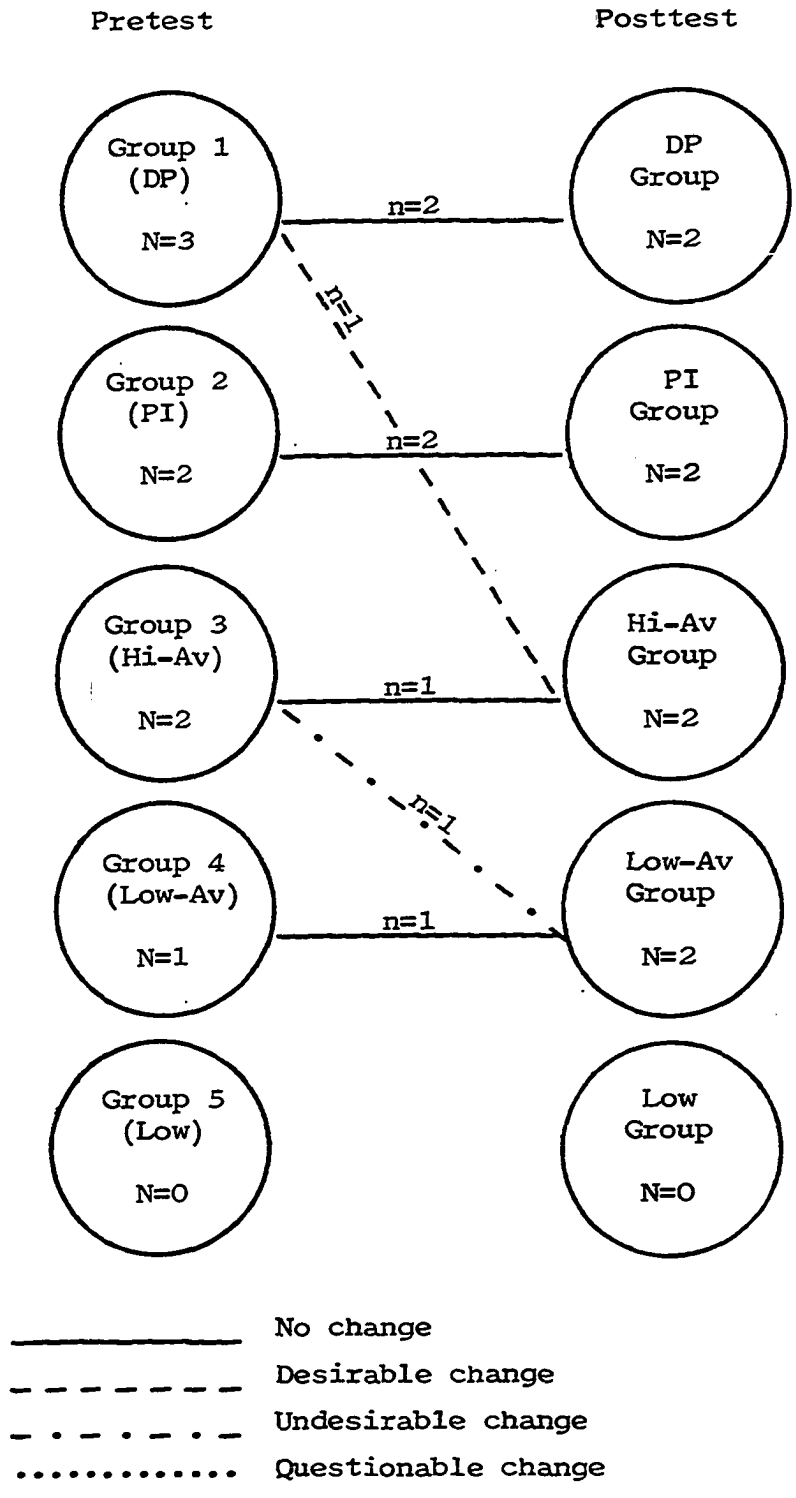


Figure 5. Vector analysis: cognitive treatment on self-esteem measure

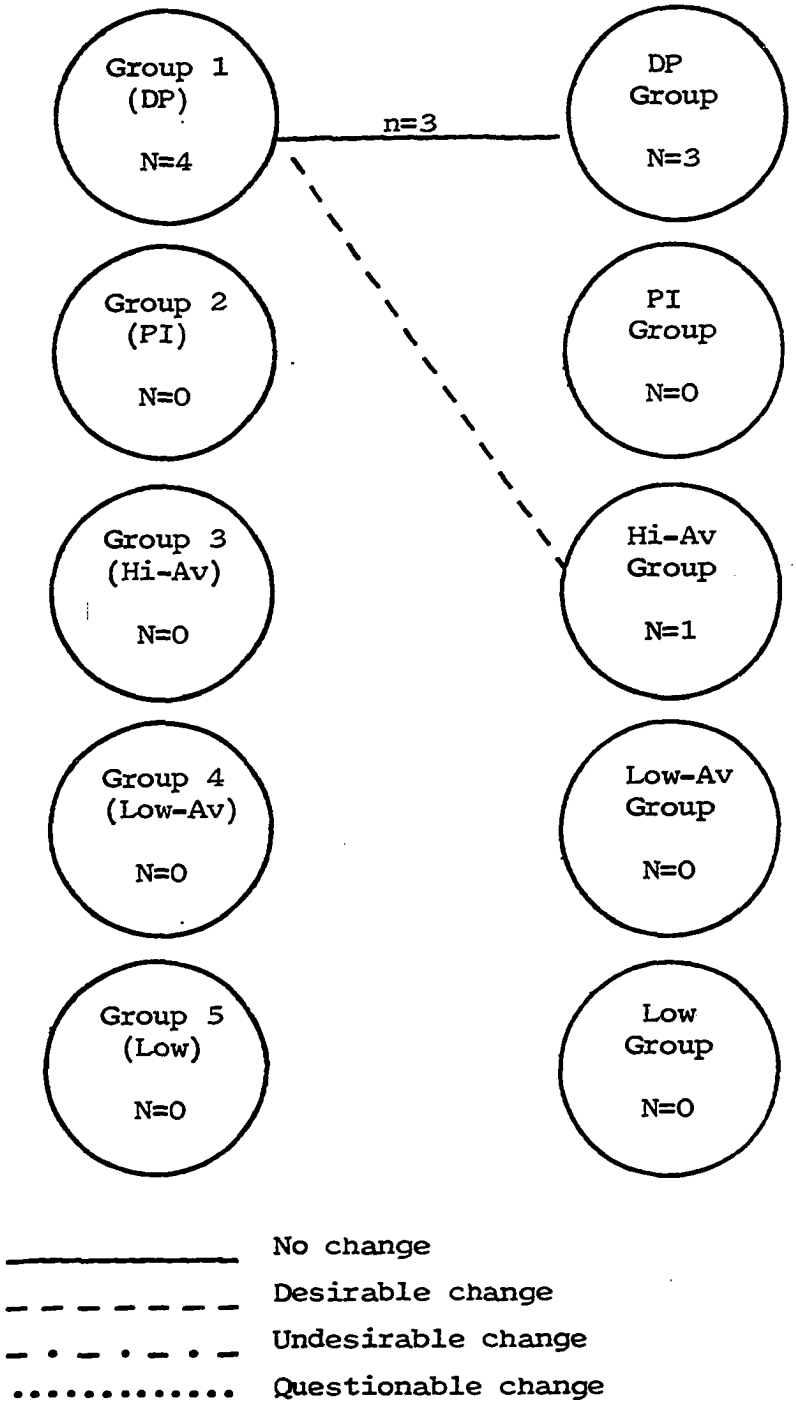


Figure 6. Vector analysis: no treatment on self-esteem measure

Table 10. Changes in self-esteem in percent

Direction of change	Affective treatment	Cognitive treatment	No treatment
No change	37.5%	75.0%	75.0%
Desirable	50.0%		12.5%
Undesirable	12.5%	12.5%	0.0%
Questionable	0.0%	0.0%	0.0%

Ho_2: As assessed by the Piers-Harris Children's Self-Concept Scale, there is no significant difference in self-concept of students whose teachers experienced different consultation groups.

There was insufficient evidence to reject this major null hypothesis. For the difference to be significant at the .05 level, an F-ratio of 19.00 was needed. The results of the analysis for self-concept are presented in Table 11.

Table 11. Analysis of variance: self-concept of students

Source of variation	d.f.	Sum of squares	Mean square	F-ratio
Treatment	2	28.715	14.358	.081
Group c/in treatment	2	352.718	176.360	.983
Teach. c/in grp. c/in treatment	15	2690.212	179.347	1.944*
Student c/in classroom	378	34871.4225	92.252	

*p = 0.05 (F > 1.67).

Ho_{2a}: As assessed by the Piers-Harris Children's Self-Concept Scale, there is no significant difference in behavior of students whose teachers experienced different consultation groups.

Analysis of the data procured resulted in insufficient evidence to reject the null hypothesis. An F-ratio of 19.00 was necessary for significance at .05 level. Table 12 presents the results of the analysis.

Table 12: Analysis of variance: behavior sub-scale

Source of variation	d.f.	Sum of squares	Mean square	F-ratio
Treatment	2	12.301	6.150	2.745
Group c/in treatment	2	4.481	2.241	.136
Teacher c/in grp. c/in treatment	15	247.338	16.489	1.858*
Student c/in teacher	378	3355.411	8.877	

*p = 0.05 (F > 1.67).

Ho_{2b}: As assessed by the Piers-Harris Children's Self-Concept Scale, there is no significant difference in intellectual and school status of students whose teachers experienced different consultation groups.

Analysis of the data generated resulted in insufficient evidence to reject this null hypothesis. An F-ratio of 19.00 or beyond was necessary for significance at the .05 level. Table 13 depicts the statistical results.

Table 13. Analysis of variance: intellectual and school status sub-scale

Source of variation	d.f.	Sum of squares	Mean square	F-ratio
Treatment	2	4.353	2.277	.067
Group c/in treatment	2	65.323	32.662	2.617
Teacher c/in grp. c/in treatment	15	187.223	12.482	1.326
Student c/in classroom	378	3558.419	9.414	

Ho_{2c}: As assessed by the Piers-Harris Children's Self-Concept Scale, there is no significant difference in physical appearance and attributes of students whose teachers experienced different consultation groups.

There was insufficient evidence to reject the null hypothesis. For the difference to be significant at the .05 level, an F-ratio was needed. These results are depicted in Table 14.

Table 14. Analysis of variance: physical appearance and attributes sub-scale

Source of variation	d.f.	Sum of squares	Mean square	F-ratio
Treatment	2	10.400	5.199	.653
Group c/in treatment	2	15.925	7.963	1.284
Teacher c/in grp. c/in treatment	15	93.033	6.202	1.116
Student c/in classroom	378	2100.124	5.556	

Ho_{2d}: As assessed by the Piers-Harris Children's Self-Concept Scale, there is no significant difference in the anxiety of students whose teachers experienced different consultation groups.

There was insufficient evidence to reject the null hypothesis. For the difference to be significant at the .05 level, an F-ratio of 19.00 was needed. Table 15 depicts the statistical results.

Table 15. Analysis of variance: anxiety sub-scale

Source of variation	d.f.	Sum of squares	Mean square	F-ratio
Treatment	2	10.864	5.432	.202
Group c/in treatment	2	53.682	26.841	3.204
Teacher c/in grp. c/in treatment	15	121.843	8.123	1.261
Student c/in classroom	378	2434.576	6.441	

Ho_{2e}: As assessed by the Piers-Harris Children's Self-Concept Scale, there is no significant difference in happiness and satisfaction of students whose teachers experienced different consultation groups.

There was insufficient evidence to reject the null hypothesis. An F-ratio of 19.00 was essential for significance at the .05 level. Results are presented in Table 16.

Table 16. Analysis of variance: happiness and satisfaction subscale

Source of variation	d.f.	Sum of squares	Mean square	F-ratio
Treatment	2	2.332	1.166	.4193
Group c/in treatment	2	5.561	2.780	.4463
Teacher c/in group c/in treatment	15	93.444	6.229	2.003*
Student c/in classroom	378	1175.701	3.110	

*p = 0.05 (F > 1.67).

Ho_{2f}: As assessed by the Piers-Harris Children's Self-Concept Scale, there is no significant difference in popularity of students whose teachers experienced different consultation groups.

There was insufficient evidence to reject the null hypothesis. For the difference to be significant at the .05 level, an F-ratio of 19.00 was needed. Table 17 presents the results.

Table 17. Analysis of variance: popularity sub-scale

Source of variation	d.f.	Sum of squares	Mean square	F-ratio
Treatment	2	10.864	5.432	.202
Group c/in treatment	2	53.682	26.841	3.313
Teacher c/in grp. c/in treatment	15	121.843	8.123	1.261
Student c/in classroom	378	2434.576	6.441	

Ho_3: As assessed by the Fundamental Relations Orientation: Behavior Questionnaire, there is no difference in interpersonal relationships of teachers who experienced different consultation groups.

There was insufficient evidence to reject this null hypothesis. For the difference to be significant, an F-ratio of 3.59 at the .05 level was necessary. Table 18 reports these results.

Table 18: Analysis of variance: behavior sub-scale

Source of variation	d.f.	Sum of squares	Mean square	F-ratio
Between	2	264.200	132.100	2.693
Within	17	834.000	49.059	
Total	19	1098.200		

Ho_{3a}: As assessed by the FIRO-B, there is no difference in expressed inclusion of teachers who experience different consultation groups.

There was insufficient evidence to reject this null hypothesis. At the .05 level, an F-ratio of 3.59 was necessary for significance. Table 19 depicts these results.

Table 19. Analysis of variance: expressed inclusion sub-scale

Source of variation	d.f.	Sum of squares	Mean square	F-ratio
Between	2	7.25	3.625	1.220
Within	17	50.500	2.971	
Total	19	57.750		

Ho_{3b}: As assessed by the FIRO-B, there is no difference in expressed control of teachers who experience different consultation groups.

There was insufficient evidence to reject the null hypothesis. At the .05 level, the essential F-ratio for significance was 3.59. Table 20 represents these results.

Table 20. Analysis of variance: expressed control sub-scale

Source of variation	d.f.	Sum of squares	Mean square	F-ratio
Between	2	5.075	1.538	1.162
Within	17	37.125	2.184	
Total	19	42.200		

Ho_{3c}: As assessed by the FIRO-B, there is no difference in expressed affection of teachers who experienced different consultation groups.

There was insufficient evidence to reject the null hypothesis. The F-ratio for significance at the .05 level was 3.59. Table 21 depicts the statistical results.

Table 21. Analysis of variance: expressed affection

Source of variation	d.f.	Sum of squares	Mean square	F-ratio
Between	2	10.575	5.288	3.688*
Within	17	24.375	1.434	
Total	19	34.950		

*p = 0.05 (F > 3.59).

For identifying the source of difference, the Contrast Coefficient Matrix was used. When the affective group treatment mean was contrasted with the mean of the combined cognitive and control group means, the t-value of 2.678 with a .016 probability indicated that the affect group mean was different from the cognitive and control group combined mean. The contrast of the cognitive mean versus the control mean resulted in a t-value of 1.023 with a .321 probability and hence insignificant difference. Thus, the source of difference was with the group that experienced the affective treatment.

Ho_{3d}: As assessed by the FIRO-B, there is no difference in wanted inclusion of teachers who experienced different consultation groups.

Analysis of the data obtained failed to reject the hypothesis. An .05 level of significance required a 3.59 F-ratio. Table 22 presents the results.

Table 22. Analysis of variance: wanted inclusion sub-scale

Source of variation	d.f.	Sum of squares	Mean square	F-ratio
Between	2	5.050	2.525	.220
Within	17	194.750	11.456	
Total	19	199.800		

Ho_{3e}: As assessed by the FIRO-B, there is no difference in wanted control of teachers who experienced different consultation groups.

Analysis of the data secured did not result in the rejection of the hypothesis. An F-ratio of 3.59 was essential for .05 level of significance. Table 23 presents the results.

Table 23. Analysis of variance: wanted control

Source of variation	d.f.	Sum of squares	Mean squares	F-ratio
Between	2	16.300	8.150	1.606
Within	17	86.25	5.074	
Total	19	102.550		

Ho_{3f}: As assessed by the FIRO-B, there is no difference in wanted affection of teachers who experience different consultation groups.

Analysis of the data obtained resulted in rejection of the hypothesis. An F-ratio of 3.59 was essential for rejection at the .05 level. Table 24 presents the results for rejection of null 3f.

Table 24. Analysis of variance: wanted affection sub-scale

Source of variation	d.f.	Sum of squares	Mean square	F-ratio
Between	2	27.450	13.725	4.912*
Within	17	47.500	2.794	
Total	19	74.95		

*p = 0.05 (F > 3.59).

For identifying the source of difference, the Contrast Coefficient Matrix was used. When the affective group treatment mean was contrasted with the combined mean of the cognitive and control groups, the t-value of 2.958 with a probability of 0.009 indicated difference from the cognitive-control combined mean. The contrast of the cognitive mean with the control mean was -0.366 with a probability of 0.719. The difference found its source in the affective treatment group.

Ho_4: As assessed by the Flanders Verbal Interaction Analysis, there was no difference in verbal interaction of students and their teachers who received different consultation group experiences.

Analysis of the data resulted in insufficient evidence to reject the major null hypothesis or any of the sub-hypotheses examined. Significance at the .05 level was 3.59. These results are reported by variable and F-ratio in Table 25.

Table 25. Analysis of variance: Flanders verbal interaction analysis

Variable	F-ratio
Accepting feeling	0.643
Praising and encouraging	0.785
Accepting ideas	0.510
Asking questions	0.222
Lecturing	2.735
Giving directions	0.034
Criticizing or justifying authority	0.009
Responding to teacher	0.554
Initiating talk	1.631
Confusion or silence	0.541
Direct teacher talk	0.160
Indirect teacher talk	0.473

Ho_5: As assessed by the Hill Interaction Matrix, there was no difference in the interaction of teachers who experienced different consultation groups.

Analysis of data for this hypothesis was a clinical/statistical one. Movement of the affective group showed change over time in the desired direction, toward the lower right interaction quadrant of the matrix. There was movement of the interaction of the cognitive

treatment group toward the upper right quadrant. These results are presented by Figure 7, Figure 8, Figure 9, and Figure 10. Data was derived from rater analysis of segments of tapes two and eight.

In summary, the findings of this study concerning the effect on interaction and interaction and self-concept of students and teachers when the teachers experienced affective or cognitive consultation in small group settings have been presented. In teacher self-concept, as assessed by the TSCS, the variables examined statistically were positive self-concept, identity, self-satisfaction, perceived behavior, physical self, moral-ethical self, personal self, family self, and social self. Only the moral-ethical self showed significant change. Using a Contrast Coefficient Matrix, it was found that the change was in the affective treatment group. In the clinical/statistical procedure with the TSCS data, again the affective group showed more individual movement in the desired direction of higher self-esteem, while those in the cognitive and control treatment groups showed less individual movement in the desired direction.

To assess student self-concept change, the Piers-Harris instrument was used. Variables analyzed were total self-concept, perceived behavior, intellectual and school status, physical appearance and attributes, anxiety, happiness and satisfaction, and popularity. Neither the major null nor any of the sub-hypotheses yielded a change that was statistically significant.

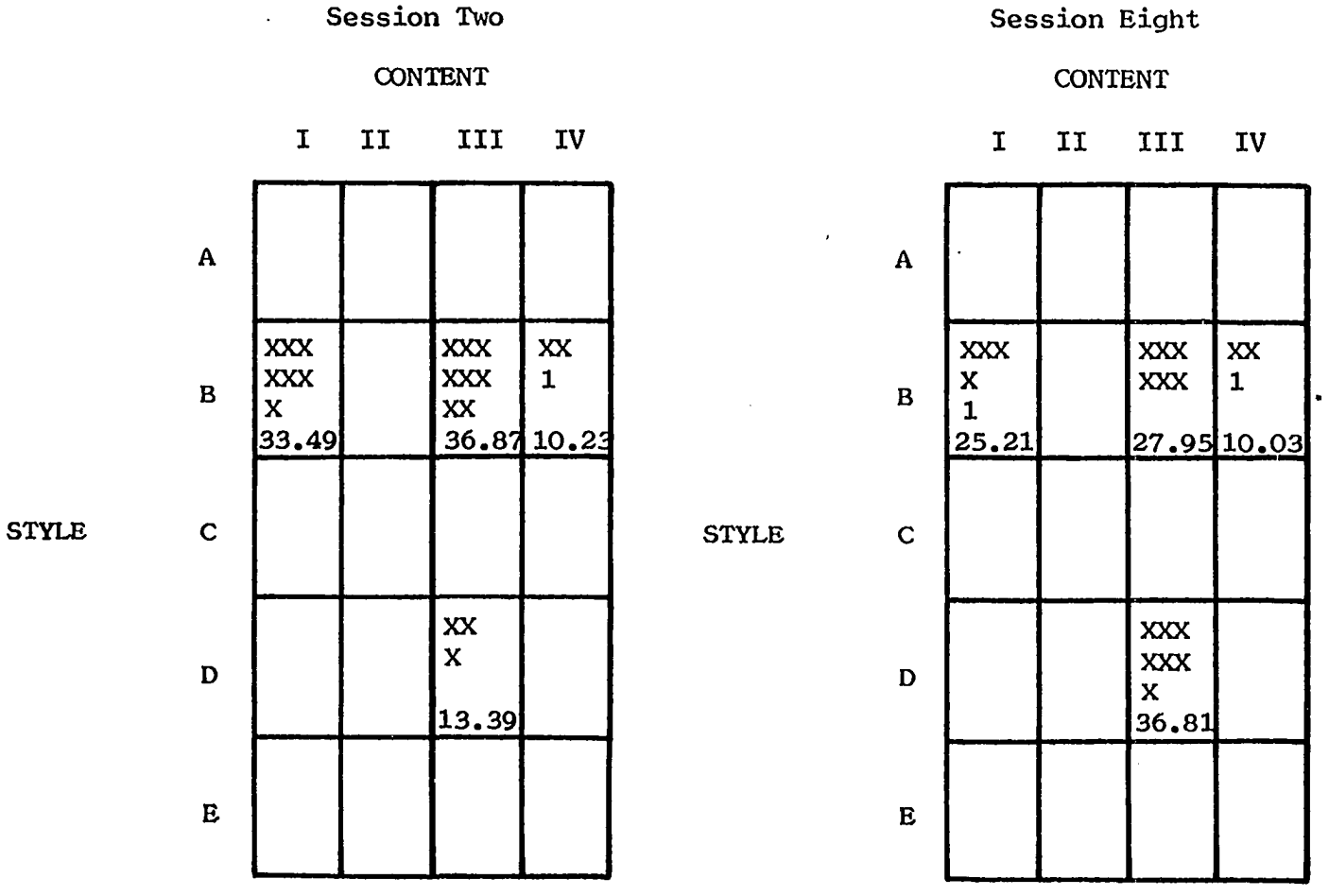


Figure 7. Hill Interaction Matrix, Treatment I: Group 1 (percent of talk)

Session Two

STYLE	CONTENT I	CONTENT II	CONTENT III	CONTENT IV
A				
B	XX X 11.97	X 2.41	XXX XXX XX1 41.24	XXX X 16.87
C	X 4.098		X 1.768	
D	1 .405		XX X 14.64	X 1 6.75
E				

Session Eight

STYLE	CONTENT I	CONTENT II	CONTENT III	CONTENT IV
A				
B	XX 7.28	1 .47	XXX XX 22.35	XXX XX 23.39
C			X 2.584	
D		X 2.95	XXX 13.4	XXX 13.31
E			XX 8.89	X 1 5.38

Figure 8. Hill Interaction Matrix, Treatment I: Group 2 (percent of talk)

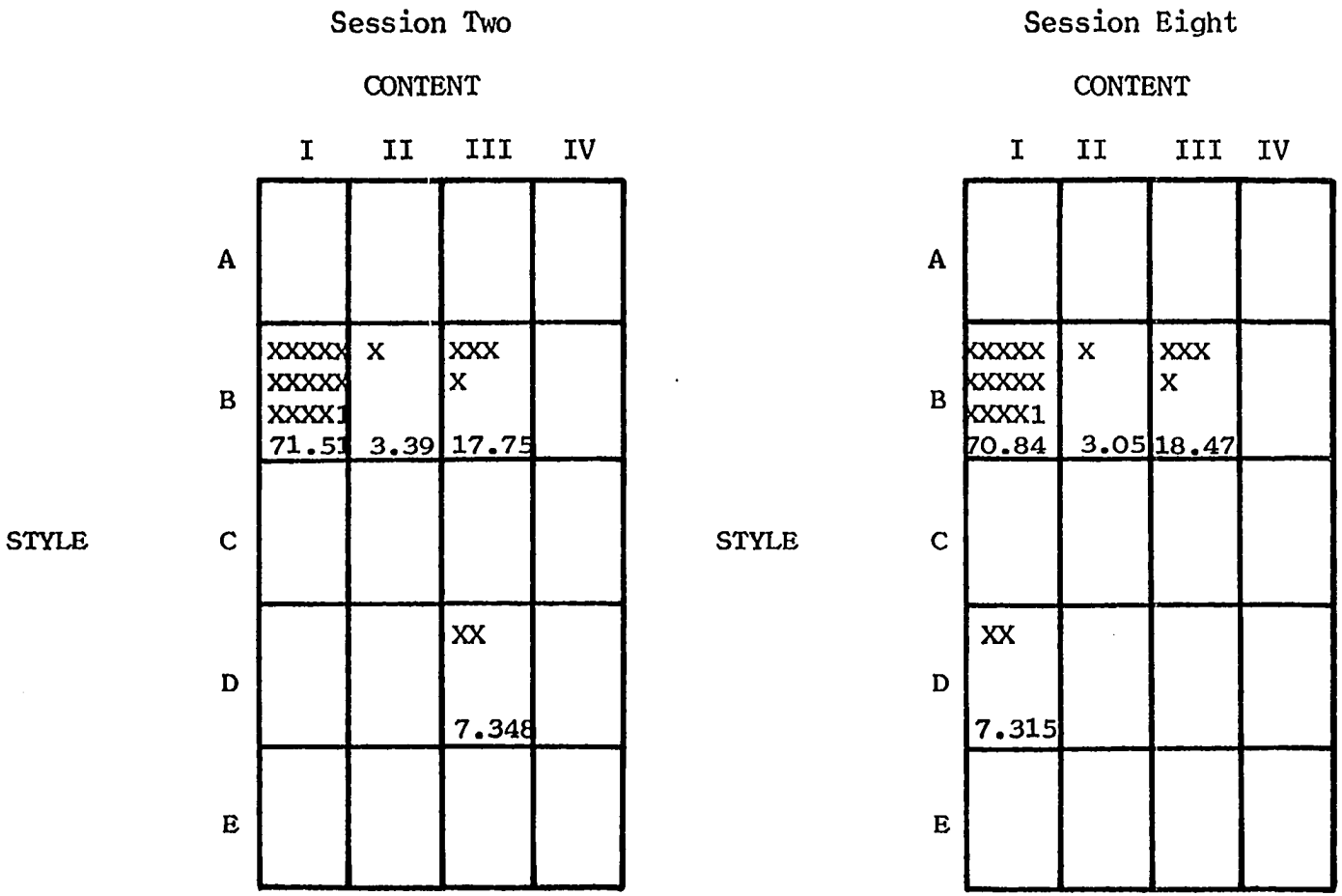


Figure 9. Hill Interaction Matrix, Treatment II: Group 1 (percent of talk)

Session Two

CONTENT

STYLE	I	II	III	IV
A				
B	XXXX XXXX XXXX 58.87		XXX XXX 29.62	XX 5.515
C			XX 6.0	
D				
E				

Session Eight

CONTENT

STYLE	I	II	III	IV
A				
B	XXX XXX X 33.26	1 .242	XXX XXX XXX 41.05	XXX X1 20.51
C	1 .362		X 3.72	
D	1 .54			
E				

Figure 10. Hill Interaction Matrix, Treatment II: Group 2 (percent of talk)

The FIRO-B was used to investigate the interpersonal relations orientation of teachers. Elements studied were on two levels: expressed and wanted. The elements were inclusion, control, and affection. The affective treatment group reports were significantly different in the areas of expressed and wanted affection.

To examine possible changes in classroom verbal interaction, the variables examined were accepting feeling, praising and encouraging, accepting ideas, asking questions, lecturing, giving directions, criticizing or justifying authority, responding to teacher, initiating talk, confusion or silence, direct teacher talk, and indirect teacher talk. No statistically significant change was detected.

The Hill Interaction Matrix was used to investigate changes in interaction within the treatment groups. Interaction was assessed by rater evaluation of segments of two tapes. The numbers involved in the study were too small for statistical treatment in this area. Hill (1971) recommended considering the movement from one interaction quadrant to another. The affective treatment group showed movement toward the more effective work/style interaction quadrants.

DISCUSSION

This study was concerned with the enhancement of learning opportunities for children. The investigation focused on methods of assisting teachers through group experiences that also could be called in-service opportunities. The group experiences centered around affective procedures for one treatment and cognitive procedures for another treatment. The results of these experiences were analyzed to identify any effect of either type of experience on the self-concept of students and their teachers and on the interaction of teachers who participated in the treatments.

Five general null hypotheses with twenty sub-hypotheses were tested. Findings resulted in three significant differences in sub-nulls which stemmed from analysis of variance. Clinical/statistical changes did occur. In addition to statistical and clinical/statistical procedures, researcher observations and teacher reactions concerning the experience will be considered. Thus, after consideration of the limitations of the study, the discussion will follow the order of the hypotheses stated in Appendix A. Implications relevant to the study appear next with recommendations for future study completing the chapter.

The study was conducted in the Boone Community School District and involved twenty volunteer teachers and their students in grades three, four, and five for the 1972-73 school year. Inferences made from the data obtained if applied to other populations must be considered with caution. However, generalizations from the procedures

used in counselor consultation processes with teachers in regard to providing for needs of teachers within the school setting are appropriate.

Limitations must be noted. One such limitation was that imposed by the instruments used. All the instruments used were self-report instruments. Another limitation involved the difficulties inherent in conducting research within a school setting. With these limitations considered, the discussion for each major hypothesis follows.

Ho_1: As assessed by the TSCS, there is no significant difference in self-concept of teachers who experience different consultation groups.

There was insufficient evidence to reject the null hypothesis in seven of eight instances examined. There was significance when the moral-ethical self-concept subscale was considered. Fitts (1969) defines the moral-ethical self as the individual's perception of moral worth, of his relationship with God, and of his feelings of being a good or a bad person. The analysis of variance revealed a significant difference at the .05 level as reported in Table 6 on page 95. Using the Contrast Coefficient Matrix to identify the source of the difference in means, the resultant t-value indicated that the difference did indeed lie in the affective treatment. One characteristic of the "C" group technique which effected the change was the concern the group showed the group members, both for their own feelings and for those of the children considered. In collaborating, the group worked on mutual

concerns which reassured each teacher through highlighting the fact that most of the concerns attended to by the group were mutual concerns. An example is the noise level in a classroom where individualized study is the procedure used. Once cohesiveness was established, communication became meaningful as the affective groups dealt not only with ideas and facts, but also with personal feelings and perceptions. In offering a nonjudgmental setting of openness and trust, with confidentiality the cornerstone of the group's function, members began to see that others have similar concerns, feelings, and attitudes. Thus the teachers' perceptions of themselves began to change, especially in considering themselves as persons of worth rather than good persons or bad persons. Their teaching was viewed with more pride upon realizing that other beginning teachers, as well as experienced teachers, have days when they are more effective than other days.

Realization that good and bad are extremes of a continuum rather than a dichotomy is associated with perceptions of right and wrong which the change in self-concept when viewed from a moral-ethical viewpoint illustrates. If only one facet of self could change, perhaps this is the area from which other self-concept changes are most likely to emerge, for it suggests an openness, that is a receptivity, which is essential for the viable person whom Rogers (1959) describes as one in tune with changingness resulting from the process of assimilation of new experience.

Another facet to consider with a moral-ethical construct is

possible occurrence of movement from a rigid, external motivation often accompanied by guilt feelings to a gestalt position of internal motivation emphasizing the here and now while drawing upon experiences of the past in contemplation of the future. With the beginning of self-concept change stemming from the moral-ethical perception of self representing the fertile field, and seeds represented by experiences assimilated into the gestalt, the resultant growth could conceivably develop into Rogers' fully-functioning person, or, to use Maslow's terminology, a self-actualizing person.

The test of significance at the .05 level for change in self-concept was found in only the moral-ethical subscale of the TSCS. However, several other sub-scales approached significance. One of these sub-scales was the family self which was significant at the .112 level, indicating movement in the desired direction. One explanation of this trend might stem from the significance of the moral-ethical finding which indicated greater receptivity. Thus the affective group, being more receptive and subsequently accepting, could be approaching recognition that others, the family members in particular, are capable of being responsible for themselves. This can be an effect of the individual teacher's beginning to move away from a right/wrong dichotomy in thinking and doing.

Two other attributes subsummed under self-concept were the physical self and the social self. Both of these approached significance at the .112 level. Here again acceptance of self would seem to be a key factor, although the influences of group experiences

cannot be overlooked, especially when the mean differences as reported in Table 26 on pages 172-173 are considered.

In summarizing the statistical treatment of the data, interpretation of the F tests resulting from the analysis of variance resulted in insufficient evidence to reject the null hypothesis in seven of the tests in which the self-concept of teachers experiencing different consultation groups was examined. The analysis of variance found when self-concept was considered from a moral-ethical stance resulted in significant differences. Approaching significance toward the desired direction was self-concept as analyzed from physical, social, and family vantage points.

However, in dealing with something as nebulous and as private as self, analysis other than statistical showed promise of utility. The form considered was the clinical/statistical approach to analysis.

In pretest-posttest studies when the number of subjects is small, the gains of one individual may be negated by the losses of another resulting in no change in group mean. Thus, when the number is small, individual differences become especially important, since uniform changes in all Ss are improbable. In this study, by considering the type of self-concept which the person brought into the experiment, the impact of the intervention becomes more apparent. To present this influence, the movement between pretest and posttest was investigated.

The direction of movement from pretest to posttest in the focus of self-esteem was developed by Fitts (1973). Figures 4, 5, and 6

depict that change by treatment group. This manner of analysis was based on descriptive statistical procedure, then treated from a clinical standpoint. Improvement in self-esteem was defined as moving to a higher level of self-esteem as delineated by Fitts (1973) and explained on pages 98-102.

In examining the vector analyses of the three treatment groups, the differences among the three groups are apparent. In the affective treatment group half the participants moved to the next higher level of self-esteem. In addition two of the participants who were functioning at the integrated personality level on the initial scale, the highest level indicated by the analysis, remained at that level. In other words, the analysis, and indeed the reality of the self-esteem construct, provided for no possible assessment of growth beyond that point. One individual functioning at the high average self-esteem level remained at that level. The remaining member of the affective treatment group changed in an undesirable direction from the integrated personality level to the defensive position level which suggests that the already high numerical scores may have been indicative of latent defensiveness that found difficulty in dealing with the openness of a "C" group setting.

Treatment two, the cognitive treatment group, revealed no change in all but two instances. Two of the no change persons were assessed at the integrated personality level, so any growth they may have made went undetected. Two other participants remained at the same level of self-esteem, one at high average and

one at low average. One person showed undesirable change in self-esteem in moving from a high average level to a low average status. One participant did show movement in a desirable direction: that movement was from a defensive position to a high average self-esteem level.

The no treatment or control group consisted of four teachers. In the pretest, all four were assessed by the TSCS as primarily defensive persons. In the posttest three of the four remained in the defensive position category. The fourth member of the control group moved from a defensive position to a high-average self-esteem level during the time experimental groups one and two were receiving their respective treatments.

Thus, when a clinical/statistical approach was used, the treatment experienced did have significant impact, but not always the same type of impact upon those involved. The no change category demonstrates this well. For those who were placed in the integrated personality group on the basis of TSCS pretest scores and showed no change detected by the posttest a different impact would be experienced than the experience of those who remained at the defensive position level. Therefore, by using this clinical/statistical analysis, the relationship between the kind of change and the kind of self-concept each individual brought into the experience was that for the affective group the experience was significant in the realm of self-esteem for seven of the eight individuals who participated. The other groups showed lesser effects.

In summary, self-concept of teachers experiencing different consultation groups was assessed statistically by analysis of variance of the scales of the Tennessee Self-Concept Scale. The null was rejected by only the moral-ethical observation. Using a clinical/statistical analysis of self-esteem subsummed under self-concept which Fitts (1973) developed, the impact of groups consultation was positive and extremely so in the affective treatment group.

Ho_2: As assessed by the Piers-Harris Self-Concept Scale, there is no significant difference in the self-concept of students whose teachers experiences different consultation groups.

Analysis of the data failed to reject this hypothesis or any of the sub-nulls which assessed behavior, intellectual and school status, physical appearance and attributes, anxiety, happiness and satisfaction. In the aspects delineated by the hierarchial design at the level of student within classroom within group within treatment, some classroom means changed significantly. This is in keeping with Blume's study in which the relationship between teacher self-concept and student self-concept was studied. Blume found that over time (two years) teachers who report high self-esteem tend to have classes in which the children also rate high in self-esteem.

A conclusion drawn from the associative findings in self-concept, behavior, and happiness and satisfaction supports the contention that teacher self-concept influences classroom climate. For example, a teacher whose self-concept is that of integration

and worth is more likely to have a classroom where unrestricted growth can occur while the teacher with a defensive self-concept is likely to have such narrow boundaries that the classroom climate is anxious and inhibiting to learning for many of the children in the classroom.

Another encouraging associative finding was that there was no significant difference between the pretest and posttest scores. The study done by Flanders, Brode, and Morrison (1968) demonstrated that, in general, elementary school students are prone to show negative increases and positive decreases on personality measures as the school year approaches completion. In the present study, the pretest was administered in mid-to-late February and the posttest was written in early May.

Although none of the nulls concerning student self-concept were rejected, associated effects due to teacher self-concept were demonstrated. One was the absence of significant decline in self-concept means for students. Another was the relationship of teacher self-concept to student self-concept, which is an integral facet of classroom climate.

Ho_3: As assessed by the Fundamental Relations Orientation: Behavior Questionnaire, there is no significant difference in interpersonal orientation of teachers who experienced different consultation groups.

Analysis of the data gathered resulted in rejection of two of the seven nulls regarding interpersonal relationships, both relating to affection needs. As presented earlier, affection as assessed by

the FIRO:B is the degree to which a person becomes emotionally involved with others. This characteristic is subdivided into two elements: expressed and wanted behavior. The expressed behavior is overt and observable, and as reported in the FIRO:B scale is the person's perception of that behavior. The wanted scores refer to what a person wants from others and is indirect and limited by what one is willing to report. In this study, the source of differences in expressed affection was found to be in the affective treatment group where it was significant at the .01 level as identified by the Contrast Coefficient Matrix. Elements within the "C" group experience which could influence the affection variable include concern for one another, support offered by the small group experience by both the teacher participants and the group leaders, and the sharing that is implicit in the group process. Another very significant factor is the experience in expressing affectional behavior in the nonjudgmental setting.

A second null rejected by the FIRO:B data was that pertaining to wanted affection. Here the source of the difference was in the affective treatment group where the contrast coefficient was .009. The experience of the group where the Ss could express their actions toward others and expectations from others was one of safety. Thus the ability to verbalize what one wanted from others became less threatening.

An associative finding of the FIRO:B was the total expressed score representing inclusion and control as well as affection.

The F-ratio for this comparison was 4.533 which was significant at the .026 level. The source of difference was in the affective treatment group where the difference was significant at .008 level.

The findings concerning the influence of the affective group consultation are consistent with those of Aspy who investigated the need satisfaction at which teachers function as a determinant of teacher behavior in the classroom. To function at Maslow's competency level, one needs to give to others. Many teachers function at the safety (economic) level. The level in-between is love and belongingness. This finding is also in Schutz' tenet that people need persons to receive from and persons to give to. Certainly the findings of this study illustrate this observation.

Other related studies supported by these findings include Yee (1968) who pointed out the need of lower class pupils for sources of warmth and emotional support. The FIRO:B findings indicated that these teachers were capable of providing that warmth. Weiss (1970) suggested that the teacher as a model was a major source for developing the self-concept with its interpersonal component. Studies by others (Khan & Weiss, 1973; Di Tosto, 1961; Brabble, 1969; and Collins, 1970) reported inconclusive results in grouping according to interpersonal need compatibility.

Ho_4: As assessed by the Flanders Verbal Interaction Analysis, there is no significant difference in verbal interactions of teachers who experienced different consultation groups.

This hypothesis failed to be rejected after analysis of variance. The only element approaching significance was lecturing and the source of that difference was in the affective treatment group. The direction of change was to less lecturing as a form of classroom interaction. The experiences of the give and take in the affective group which also dealt with the feelings of the participants was denied the cognitive group where the statements and questions were handled from an intellectual approach only. Furst and Amidon (1962) found that more direct teacher talk of which lecturing is a part occurs as the grade level of the student advances. Amidon and Giammatteo (1967) found that superior teachers used more indirect methods with students even as the grade level advanced.

Ho_5: As assessed by the Hill Interaction Matrix, there is no difference in the interaction within groups of teachers who experienced different consultation groups.

Using the clinical/statistical approach as recorded by the HIM, there was change in the affective group in the desired direction, that is from the topic-group/conventional-assertive-gradient to the personal-relationship/speculative-confrontive quadrant, which appears to be small. Yet this change was consistent with the findings of Ahearn, 1965; Anderson, 1964; Garner, 1960; and Liebroder, 1962, as cited in Hill (1971, p. 621). The amount of change may be due in part to the resistance to the leader in the early stages and to the short duration of the treatment period. One could speculate that

the affective groups had just come into their productive stage when it was time to conclude the experience. This is consistent with Schutz' (1967) pattern of interpersonal relationships which indicate that first there is inclusion which progresses to control which then advances to affection.

In general, from a statistical approach the results were much as expected. The limitations including the experimental situation and the small number included in the study were deterrents. In some situations there appeared to be substantial difference among the means; however, the variability was too great to indicate significance.

When viewed from a clinical/statistical approach, the affective group treatment did have a strong, positive effect on teacher self-concept. The affective group interaction did move from superficiality to a degree of meaningful interaction as indicated by the HIM.

Researcher Observations

Factors that did not fall within statistical or clinical/statistical analyses have to do with teacher reaction and researcher observation. One of the most significant factors was that there were only three absences, all within the cognitive groups and one person who was experiencing conflict not associated with the group accounted for two of those absences. Impressive was the fact that of the 29 teachers who were eligible to participate, 20 volunteered.

Another consideration which followed, in the succeeding autumn was 100% voluntary participation of the teachers new to the school system in "C" groups especially for them. When "C" groups were offered later in the year for staff members only three who had participated in the experiment chose to be nonparticipants.

Researcher observations included a more accepting attitude toward children in general by the teachers, a willingness to try different approaches in the classroom, and requesting by the teachers of more consultation on a dyadic basis.

Implications

The purpose of this study was to investigate the consultation function of the elementary school counselor. In so doing, attempts were made to relate consultation experiences to self-concepts of students and their teachers, to interpersonal orientation of teachers, and to verbal interaction within the classroom as well as within the teacher group sessions. These utilized both affective and cognitive approaches to consultation. From the results of the study several implications emerged.

The study established that there is need for consultation services for teachers in elementary schools. The attendance record and the voluntary participation of the teachers giving of their own time are indications that they feel such a need. The seriousness with which each in the affective groups sought help from other professionals in regard to particular students, situations, or concerns

attest to this contention. So does the faithful attendance of the cognitive group members and their attempts to apply behavior modification and systems approaches to the needs of specific children.

Several types of consultation groups are feasible, but one which offers opportunity for both professional and personal growth is the "C" group. In addition, a most practical consideration for the "C" group is that there is no additional school budget expenditure since the elementary school counselors have received training in group procedures and in child behavior and development.

One very important implication concerns the treatment of data. The best test-type data that is available were used to evaluate the outcome for this study statistically with results somewhat less than impressive. An implication from this is that other than test-type data need to be used when individual movement is more important than group mean movement. There needs to be a way to identify changes that go undetected by tests that are presently available. The findings of this study in the area of self-esteem and small group interaction as reported clinically/statistically nighlight this need and point the way to developing other effective procedures.

Recommendations

For further research some recommendations were considered. Teachers are concerned and feel a need for a chance to discuss and share as indicated by the writer's two years experience using "C" groups. To meet this need "C" groups are one source of experience.

As such the consultation service is important enough that released time should be specified for participating teachers. Certainly the "C" group has established itself as a realistic vehicle for meeting teacher needs for both those who are new to a school system as well as for those who are experienced. In conducting "C" groups or other small groups a tremendous challenge presents itself to the group leaders who seek to maintain the purpose of the group in terms of goals whether they are for research or for in-service opportunity.

Assessment procedures other than test-type data are needed to establish better results as to the effectiveness of "C" group consultation. One such procedure might be a diary approach where an analysis could be done of the diary to highlight individual growth patterns both in the teacher and in the target children. Included in the diary approach or another approach to consultation might be consultation regarding critical human incidents which occurred within the week in the classroom, on the playground, or related places.

Another recommendation in terms of assisting teachers is follow-up by the counselor during the week to help the teacher. This not only enhances the opportunity for successful fulfillment of commitment, but also lends support to the teacher who is attempting to change not only the behavior of the student but also a part of herself. Probably the greatest need at this point is for more extensive use of clinical/statistical procedures and for the development of other techniques in this area.

The role of the principal is demanding. The psychologist and the nurse as well as the social worker (when one is available) are usually in the building for consultation services only. Their major concern is something other than basically focusing on inter- or intra-personal dynamics. It follows that the person to provide consultation is the one best qualified for conducting the "C" group: the elementary school counselor whose knowledge of group dynamics, awareness of individual feelings and training in child development and behavior are essential for such work.

SUMMARY

The purpose of the study was to examine the consultation function of the elementary school counselor. To do so, two experimental treatments composed of two groups each were established. One group was concerned with the feelings of teacher and of children regarding specific behaviors and how to cope with them. This was known as the affective group. The other treatment group was the cognitive group and focused on behavior modification techniques and systems management of students.

The study involved twenty volunteer teachers from grades three, four, and five in the Boone Community Schools for the 1972-73 school year. The group sessions for the teachers were held after school hours for approximately one and one-half hours a week for ten consecutive weeks. Each group met on a different night but the co-leaders for the groups were the same persons.

Statistical data for evaluating the study were gathered from instruments and coding. The instruments used were the Tennessee Self-Concept Scale, the Piers-Harris Children's Self-Concept Scale, and the Fundamental Interpersonal Relations Orientation: Behavior Questionnaire. Classroom interaction was coded according to Flanders' Verbal Interaction Analysis while the teacher small group analysis resulted from the Hill Interaction Matrix. The statistical procedure used was the analysis of variance, simple classification, except for the Piers-Harris Scale which used the hierarchial analysis. When

statistically significant differences were found, the Contrast Coefficient Matrix was used to locate the source of the difference and the level of significance of that difference. An additional treatment of data was the clinical/statistical approach which analyzed the movement of individuals and groups.

The findings included significant differences in the moral-ethical sub-scale of the TSCS and in expressed and wanted affection sub-scales of the FIRO:B. The source of the difference was in the affective treatment at the .05 level. In addition, the clinical/statistical application revealed definite movement in the desired direction for most of the individuals in the affective treatment group. The interaction coded by the HIM moved in the desired direction from the conventional-assertive/topic-group quadrant to the personal-relationship/speculative-confrontive quadrant indicating more openness, trust, and willingness to share with one another at a deeper level.

Five general null hypotheses were formulated to examine the effects of affective and cognitive group experiences on the self-concepts and interactions of elementary school teachers and their students. For the purpose of investigation, these general hypotheses were specified more precisely by twenty sub-hypotheses. Three of these sub-hypotheses were rejected at the .05 level. In abbreviated form, the findings were as follows:

Null hypothesis:

1. a.	There is no significant difference between identity, as assessed by the TSCS, of teachers who experienced different consultation groups.	Failed to reject
1. b.	There is no significant difference between self-satisfaction, as assessed by the TSCS, of teachers who experience different consultation groups.	Failed to reject
1. c.	There is no significant difference between behavior, as assessed by the TSCS, of teachers who experienced different consultation groups.	Failed to reject
1. d.	There is no significant difference between physical self, as assessed by the TSCS, of teachers who experienced different consultation groups.	Failed to reject
1. e.	There is no significant difference between moral ethical self, as assessed by the TSCS, of teachers who experienced different consultation groups.	Rejected
1. f.	There is no significant difference between personal self, as assessed by the TSCS, of teachers who experienced different consultation groups.	Failed to reject
1. g.	There is no significant difference between family self, as assessed by the TSCS, of teachers who experienced different consultation groups.	Failed to reject
1. h.	There is no significant difference between social self, as assessed by the TSCS, of teachers who experienced different consultation groups.	Failed to reject

Null hypothesis:

2. a.	There is no significant difference between behavior, as assessed by the Piers-Harris Scale, of students whose teachers have experienced different consultation groups.	Failed to reject

2. b.	There is no significant difference between intellectual and school status, as assessed by the Piers-Harris Scale, of students whose teachers experienced different consultation groups.	Failed to reject
2. c.	There is no significant difference between physical appearance and attributes, as assessed by the Piers-Harris Scale, of students whose teachers experienced different consultation groups.	Failed to reject
2. d.	There is no significant difference between anxiety, as assessed by the Piers-Harris Scale, of students whose teachers experienced different consultation groups.	Failed to reject
2. e.	There is no significant difference between happiness and satisfaction, as assessed by the Piers-Harris Scale, of students whose teachers experienced different consultation groups.	Failed to reject
2. f.	There is no significant difference between popularity, as assessed by the Piers-Harris Scale, of students whose teachers experienced different consultation groups.	Failed to reject

Null hypothesis:

3. a.	There is no significant difference between expressed inclusion, as assessed by the FIRO:B, of teachers who experienced different consultation groups.	Failed to reject
3. b.	There is no significant difference between wanted inclusion, as assessed by the FIRO:B, of teachers who experienced different consultation groups.	Failed to reject
3. c.	There is no significant difference between expressed control, as assessed by the FIRO:B, of teachers who experienced different consultation groups.	Failed to reject
3. d.	There is no significant difference between wanted control, as expressed by the FIRO:B, of teachers who experienced different consultation groups.	Failed to reject

3. e.	There is no significant difference between expressed affection, as assessed by the FIRO:B, of teachers who experienced different consultation groups.	Rejected
3. f.	There is no significant difference between wanted affection, as assessed by the FIRO:B, of teachers who experienced different consultation groups.	Rejected

Where the sub-hypotheses were rejected, the source of difference was in the affective group.

The clinical/statistical application revealed definite movement in the desired direction for most of the individuals in the affective treatment group. The interaction coded by the HIM moved in the desired direction from the topic-group/conventional-assertive quadrant to the personal-relationship/speculative-confrontive quadrant indicating more openness, trust, and willingness to share with one another at a deeper level.

Implications from the study included that there is a need for consultant services for teachers, that the "C" groups are one successful way of providing that consultation, that counselors are the logical persons to implement the "C" groups, and that clinical/statistical procedures for analysis of data are needed for more accurate interpretation of findings in areas such as the ones examined in this study.

The recommendations urged more widespread use of the "C" group, greater involvement of counselors in consultant services, and the development and use of more sophisticated clinical/statistical procedures for interpreting the data.

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APPENDIX A: SUB-NULLS

FOR THE NULL HYPOTHESES

Ho_1: There is no significant difference between the self-concept of teachers who experience different consultation groups.

a. There is no significant difference between identity, as assessed by the TSCS, of teachers who experienced different consultation groups.

b. There is no significant difference between self-satisfaction, as assessed by the TSCS, of teachers who experienced different consultation groups.

c. There is no significant difference between behavior, as assessed by the TSCS, of teachers who experienced different consultation groups.

d. There is no significant difference between physical self, as assessed by the TSCS, of teachers who experienced different consultation groups.

e. There is no significant difference between moral ethical self, as assessed by the TSCS, of teachers who experienced different consultation groups.

f. There is no significant difference between personal self, as assessed by the TSCS, of teachers who experienced different consultation groups.

g. There is no significant difference between family self, as assessed by the TSCS, of teachers who experienced different consultation groups.

h. There is no significant difference between social self, as assessed by the TSCS, of teachers who experienced consultation groups.

Ho_2: There is no significant difference between self-concept of students whose teachers experience different consultation groups.

a. There is no significant difference between the behavior, as assessed by the Piers-Harris Scale, of students whose teachers have experienced different consultation groups.

b. There is no significant difference between intellectual and school status, as assessed by the Piers-Harris Scale, of students whose teachers experienced different consultation groups.

c. There is no significant difference between physical appearance and attributes, as assessed by the Piers-Harris Scale, of students whose teachers experienced different consultation groups.

d. There is no significant difference between anxiety, as assessed by the Piers-Harris Scale, of students whose teachers experienced different consultation groups.

e. There is no significant difference between happiness and satisfaction, as assessed by the Piers-Harris Scale, of students whose teachers experienced different consultation groups.

f. There is no significant difference between popularity, as assessed by the Piers-Harris Scale, of students whose teachers experienced different consultation groups.

Ho_3: There is no significant difference in interpersonal relations orientation between teachers who experience different consultation groups.

a. There is no significant difference between expressed inclusion, as assessed by the FIRO-B, of teachers who experienced different consultation groups.

b. There is no significant difference between wanted inclusion, as assessed by the FIRO-B, of teachers who experienced different consultation groups.

c. There is no significant difference between expressed control, as assessed by the FIRO-B, of teachers who experienced different consultation groups.

d. There is no significant difference between wanted control, as assessed by the FIRO-B, of teachers who experienced different consultation groups.

e. There is no significant difference between expressed affection, as assessed by the FIRO-B, of teachers who experienced different consultation groups.

f. There is no significant difference between wanted affection, as assessed by the FIRO-B, of teachers who experienced different consultation groups.

APPENDIX B: THE C-GROUP--FOCUS ON SELF AS INSTRUMENT[1]

Experience with in-service programs for teachers in the schools has convinced the author that teachers are not helped significantly through lectures or discussions. There must be personal involvement and an opportunity to test new ideas, see how they fit with one's personality, and exchange with colleagues the results of new approaches. It is also apparent that the school has unique resources which are not being utilized. For example, there are no organized procedures which encourage the experienced teacher to help the beginning teacher, or allow the new teacher to share ideas with more experienced colleagues.

The C-group recognizes a basic learning principle: If one is to assist another to learn and change, there must be access to the affective and cognitive domains. Feelings, values, and attitudes must be openly revealed and considered when discussing facts and theory. The dichotomy between one's emotions and intellect, often present in learning, cannot be permitted. There must be a combination of the didactic and experiential approaches, which enables the teacher to understand what is preventing effective functioning.

The new approach is not to be confused with a T-group in that it goes beyond consideration of the process and self to examination

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[1]Don C. Dinkmeyer. "The C-Group: Focus on Self as Instrument", Phi Delta Kappan 52, No. 2: 617-19.

of the transaction between teacher and student and the application of specific procedures. It also causes the teacher to see how attitudes and feelings may keep him from changing. A process which combines the didactic and experiential approaches is thereby achieved.

The new approach was labeled C-group because so many of its components begin with C.

Collaboration: The group works together on mutual concerns.

Consultation: The interaction within the group helps members to develop new approaches to relationships with children.

Clarification: The group clarifies for each member what it is he really believes and how congruent or incongruent his behavior is with what he believes.

Confidential: Discussions are not repeated outside the group.

Confrontation: The group expects each individual to see himself, his purposes, and his attitudes and to be willing to confront other members of the group.

Communication: Members communicate not only ideas, but personal feelings and meanings.

Concern: The group shows concern in that it is involved with both its members and with children.

Commitment: The group develops a commitment to change. Participants are concerned with recognizing that they can really change only themselves. They are expected to develop a specific commitment which involves an action they will take before the next C-group to change their approach to a problem.

The C-group usually restricts itself to five or six members to secure maximum participation and involvement. Larger groups do not permit adequate opportunities for interaction. The groups are

most effective when they can be scheduled for a minimum of one and one-half hour periods. There must be time to warm up, report results of past commitments, get into new concerns, develop new commitments, and evaluate what is happening to the participants as persons and professionals. The setting must permit circular seating and should provide a relaxed and pleasant atmosphere which facilitates trust and openness.

The leader usually begins by clarifying purposes. The participants are selected from those who understand the objectives of a C-group and who have a concern, are willing to share it, are committed to personal change, and desire to help their colleagues. Readiness must be established in the group; it cannot be assumed. It is often helpful to use a group exercise such as Henry Otto's DUE experience. This experience encourages members to become better acquainted. They talk about the experiences which have been formative in the development of their personalities and share what they consider to be the happiest moment of their lives. This experience stimulates feelings of mutuality, belonging, and caring. Alienation disappears when the members appear as real persons.

The second meeting may begin by sharing brief descriptions of the situation or child that most concerns each person. The leader helps get the group started with a common problem that can be universalized. The specific behavior of a child is discussed and the teacher's interaction and feelings are revealed. The group helps the person become more of himself by processing feedback

regarding his behavior, attitudes, and feelings. New approaches involving behavior modification, logical consequences and teacher attitudes are discussed. The ideas are always related to a specific child and discussed in terms of the teacher's capacity to modify his own behavior and attitudes. Eventually, the teacher is encouraged to make a commitment about a specific change to be instituted before the next meeting. The leader tries to involve as many members as possible in presenting their concerns. The focus is on helping all involved in the group to grow personally and professionally.

The leader of the C-group must be trained in group dynamics, group counseling, and psychodynamics of behavior problems, and he must have had supervised experience in leading teacher groups. This is a distinct role in group leadership; it requires skill in structuring the group, utilization of group mechanisms to facilitate group development, sensitivity to feelings and attitudes; the capacity to enable the group to become cohesive, and the ability to help develop specific solutions to behavior or learning problems. The leader must have expertise in enabling colleagues to help each other.

APPENDIX C: BEHAVIOR MODIFICATION STUDY GROUP

Behavior modification: the method of systematically applying the principles of behavioral psychology with the intent of changing behavior.

I. Film: Who Did What to Whom? by Dr. Robert F. Mager (Dr. Albert Bandura, technical advisor).

This is a training film in which group members learn to recognize basic behavioral principles in action. The principles covered are positive and negative reinforcement, punishment, and extinction. The film consists of forty short scenes, typical events which occur everyday at home, in school and around the office. After each scene, discussion time is provided to help viewers fully understand what they have seen or what actually occurred, the probability of its happening again, how an event can be changed to achieve a more positive result, and how the scenes apply to their own experiences. The film is 16½ minutes in length and is in color.

II. Vocabulary

A. operant behavior
B. baseline
C. contingency
D. behavior modification
E. criterion level
F. reinforcement
G. primary reinforcer
H. secondary reinforcer
I. back-up reinforcer
J. satiation
K. continuous schedule
L. intermittent schedule
M. negative reinforcement
N. discriminative stimulus
O. modeling
P. gene realized reinforcer
Q. social reinforcer
R. fading
S. extinction
T. timeout
U. terminal behavior
V. Premack principle
W. generalization
X. adversive stimulus
Y. shaping
Z. chaining

III. Defining behavior in specific terms

A. Video tape scenes from classrooms

B. Select target behavior and define precisely what it is

C. Practice precise definitions for other behaviors than those shown on the videotape: i.e., staying in seat, talking out

IV. Operant behavior

A. Behavior that is strengthened or weakened by the events that follow the response; operant behavior is controlled by its consequences; operant behavior is consequential behavior (Reese, 1966).

B. Identifying reinforcers

V. Contingency contracting

A. How it works

1. Rules
2. Contracting and the curriculum

B. Applying contingency contracting in the classroom

1. Preparation of materials
2. Classroom organization
3. Management of class
4. Evaluation of procedure

VI. Token economy

A. General procedures

B. Selection and definition of behavior

C. Choosing reinforcers

D. Application of economy

E. Evaluation

VII. Tools to be used

A. Film: Who Did What to Whom? (Unable to use)

B. Videotapes of real situations

C. References

1. Ayllon, Teodoro and Nathan Azrin. The Token Economy
2. Buckley, Nancy K. and Hill M. Walker. Modifying Classroom Behavior
3. Homme, Lloyd. How to Use Contingency Contracting in the Classroom
4. Krumboltz, John D. and Helen B. Drumboltz. Changing Children's Behavior
5. Reese, Ellen P. The Analysis of Human Operant Behavior

APPENDIX D: CATEGORIES FOR FLANDERS INTERACTION ANALYSIS

Indirect Teacher Influence

1. Accepts feeling: Acceptance or acknowledgment of student-expressed emotions (feelings) in a nonthreatening manner.

2. Praises or encourages: Positive evaluation of student contributions.

3. Accepts or uses ideas of student: Clarification, development, or reference to student contributions. Usually nonevaluative.

4. Asks questions: Solicitation of information or opinion with the intent that a student answer.

Direct Teacher Influence

5. Lectures: Presentation of information, opinion, or orientation; includes rhetorical question.

6. Gives directions: Direction or suggestion with which a student is expected to comply.

7. Criticizes or justifies authority: Negative evaluation of student contributions. Self-reference to teacher's authoritative position.

Student Talk

8. Student talk-response: Contribution in response to teacher. Usually results in a predictable answer.

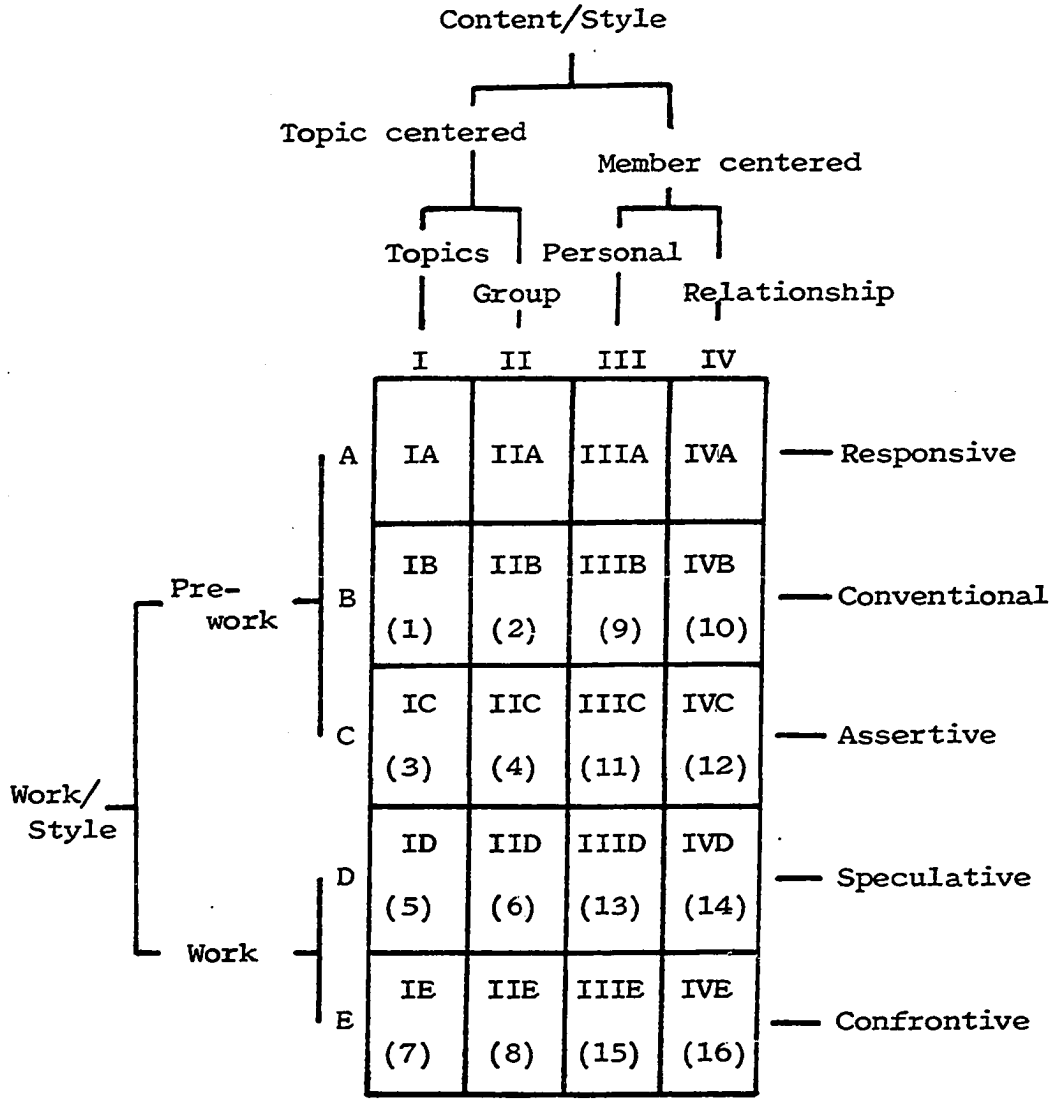
9. Student talk-initiation: Student-initiated contribution or a response that is unpredictable or originally creative in content.

10. Silence or confusion: Periods of silence or inaudible verbalization lasting more than three seconds.

WORK MATRIX

	1	2	3	4	5	6	7	8	9	10	
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											Matrix Total
TOTAL											
%											

APPENDIX E: HILL INTERACTION MATRIX



APPENDIX F: FORMAT FOR DUMMY VARIABLE

	Tr. no.	Treatment		Group within treatment		Teacher within treatment and group		
		X_1	X_2	X_3	X_4	X_5	X_6	X_7
Treatment I								
Group 1	1	1	0	1	0	1	0	0
	2	1	0	1	0	0	1	0
	3	1	0	1	0	0	0	1
	4	1	0	1	0	-1	-1	-1
Group 2	1	1	0	-1	0	0	0	0
	2	1	0	-1	0	0	0	0
	3	1	0	-1	0	0	0	0
	4	1	0	-1	0	0	0	0
Treatment II								
Group 1	1	0	1	0	1	0	0	0
	2	0	1	0	1	0	0	0
	3	0	1	0	1	0	0	0
	4	0	1	0	1	0	0	0
Group 2	1	0	1	0	-1	0	0	0
	2	0	1	0	-1	0	0	0
	3	0	1	0	-1	0	0	0
	4	0	1	0	-1	0	0	0
Treatment III								
Control	1	-1	-1	0	0	0	0	0
	2	-1	-1	0	0	0	0	0
	3	-1	-1	0	0	0	0	0
	4	-1	-1	0	0	0	0	0

Teacher within treatment and group			Teacher within treatment and group			Teacher within treatment and group			Control		
X_8	X_9	X_{10}	X_{11}	X_{12}	X_{13}	X_{14}	X_{15}	X_{16}	X_{17}	X_{18}	X_{19}
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	0	0	0	0
-1	-1	-1	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	1	0	0	0	0	0	0	0
0	0	0	0	0	1	0	0	0	0	0	0
0	0	0	-1	-1	-1	0	0	0	0	0	0
0	0	0	0	0	0	1	0	0	0	0	0
0	0	0	0	0	0	0	1	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0
0	0	0	0	0	0	-1	-1	-1	0	0	0
0	0	0	0	0	0	0	0	0	1	0	0
0	0	0	0	0	0	0	0	0	0	1	0
0	0	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	-1	-1	-1

APPENDIX G: TEACHER INSTRUMENTS

Table 26. Raw data, Tennessee Self-Concept scores

Teacher	Total positive		Identity		Self-satisfaction		Behavior	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	358	357	125	126	113	114	120	117
2	367	386	132	138	119	128	118	120
3	346	354	135	131	95	110	116	113
4	370	389	129	138	119	118	122	133
5	358	362	131	130	108	113	119	119
6	372	381	134	129	118	122	120	130
7	425	402	146	138	140	125	139	139
8	348	372	128	138	110	121	110	113
9	359	371	127	132	116	120	118	119
10	347	345	126	123	107	101	114	121
11	371	397	129	138	122	127	120	132
12	339	348	135	133	102	107	111	108
13	405	407	138	135	133	139	134	133
14	368	363	132	130	115	110	121	123
15	353	360	132	129	116	119	105	112
16	353	337	123	125	118	101	112	111
17	403	394	138	141	131	127	134	126
18	374	361	127	128	130	116	117	117
19	410	405	142	138	135	132	133	135
20	357	353	124	121	114	112	119	126

Physical		Moral-ethical		Personal		Family		Social	
Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
66	69	73	74	68	71	76	70	75	73
78	79	78	84	63	68	77	82	73	73
73	72	73	72	57	69	76	72	67	69
71	75	69	78	68	72	85	86	77	78
69	69	70	74	70	69	80	78	69	72
71	73	75	78	74	75	77	78	75	77
83	76	89	81	76	78	88	84	89	82
70	78	73	76	61	69	72	76	72	73
66	66	78	79	73	75	75	79	69	72
59	57	72	73	70	70	76	76	70	69
69	76	74	85	79	73	76	83	73	80
61	70	70	71	66	59	76	80	69	68
75	72	86	88	77	77	83	85	84	85
61	59	75	73	73	72	82	85	77	74
66	64	78	79	65	69	74	79	70	69
76	65	70	67	66	68	71	69	70	68
80	74	83	83	79	78	79	79	82	80
69	62	83	77	67	73	75	74	80	75
84	77	86	87	80	78	78	83	82	80
68	67	71	75	70	66	81	75	68	70

Table 27. Raw data, FIRO-B posttest scores

Teacher	Inclusion		Control		Affection	
	E	W	E	W	E	W
1	4	1	7	4	5	6
2	1	0	0	9	1	0
3	5	0	5	9	2	1
4	3	0	1	2	5	5
5	7	6	2	8	8	8
6	6	7	3	4	3	8
7	6	1	3	3	8	8
8	5	3	2	5	3	5
9	4	0	2	4	3	5
10	5	6	7	5	4	3
11	5	0	0	6	2	1
12	7	7	5	3	3	5
13	6	0	0	2	3	5
14	6	6	6	1	3	5
15	6	0	0	3	3	5
16	4	1	4	2	2	1
17	3	0	1	4	4	5
18	7	7	2	6	8	8
19	6	1	0	4	3	4
20	6	0	4	5	2	5

Table 28. Raw data, FIRO-B pretest scores

Teacher	Inclusion		Control		Affection	
	E	W	E	W	E	W
1	4	0	6	2	5	5
2	3	0	0	9	0	1
3	4	0	1	6	1	1
4	3	0	1	2	4	5
5	6	0	0	3	6	5
6	5	6	1	5	3	5
7	6	8	3	2	5	7
8	3	9	1	7	4	5
9	3	0	3	5	2	5
10	7	7	3	4	5	7
11	5	0	0	4	3	2
12	5	7	5	7	3	5
13	5	0	0	4	5	5
14	7	7	6	1	4	8
15	9	8	0	5	3	4
16	5	0	2	2	4	5
17	8	5	1	5	6	9
18	7	7	0	1	9	8
19	7	4	0	2	4	5
20	5	0	3	6	2	5

Table 29. Descriptive data, Tennessee Self-Concept scale: differences

Variable	Treatment I		Treatment II		Treatment III	
	$\bar{X}$	s	$\bar{X}$	s	$\bar{X}$	s
Total positive	2.6250	16.6213	4.0000	12.7839	-7.7500	4.1130
Identity	-1.000	6.3696	0.3750	4.5336	1.2500	3.8622
Personal self	3.3750	5.0409	1.0000	3.8173	-0.2500	4.3493
Social self	0.1250	3.5229	1.1250	3.0443	-3.0000	1.4142
Self-satisfaction	3.8750	9.0623	-0.6250	8.0877	-5.7500	5.5603
Behavior	-0.2500	5.9940	3.7500	4.5591	-1.2500	4.5735
Physical self	0.2500	4.5277	-0.5000	6.2106	-6.7500	4.9244
Moral-ethical self	4.1250	3.3991	0.2500	1.7525	-0.2500	4.1932
Family self	-0.8750	3.9438	3.2500	3.1269	-0.5000	4.5092

Table 30. Descriptive data, FIRO-B: differences

Variable	Treatment I $\bar{X}$	Treatment I s	Treatment II $\bar{X}$	Treatment II s	Treatment III $\bar{X}$	Treatment III s
Total score	3.7500	7.8876	-3.7500	3.8822	-3.5000	9.8826
Inclusion expressed	0.3750	1.1877	-0.3750	1.6850	-1.2500	2.6300
Control expressed	1.2500	1.3887	0.1250	1.7269	0.7500	0.9574
Affection expressed	0.8750	1.2464	-0.2500	1.2817	-1.0000	0.8165
Total expressed	2.5000	2.2678	-0.5000	1.6903	-1.5000	4.0415
Inclusion wanted	-0.6250	4.1382	-1.1250	2.8504	-2.0000	2.4495
Control wanted	1.0000	2.2678	-0.7500	1.9086	1.2500	2.8723
Affection wanted	0.8750	1.4577	-1.6250	1.7678	-1.2500	1.8930
Total wanted	1.2500	6.6279	-3.2500	2.9155	-2.0000	6.1644

FIRO-B: Raw data

Teacher		Inclusion Pre	Inclusion Post	Control Pre	Control Post	Affection Pre	Affection Post
1	Expressed	4	4	6	7	5	5
	Wanted	0	1	2	4	5	6
2	Expressed	3	1	0	0	0	1
	Wanted	0	0	9	9	1	0
3	Expressed	4	5	1	5	1	2
	Wanted	0	0	6	9	1	1
4	Expressed	3	3	1	1	4	5
	Wanted	0	0	2	2	5	5
5	Expressed	6	7	3	2	6	8
	Wanted	0	6	0	8	5	8
6	Expressed	5	6	1	3	3	3
	Wanted	6	7	6	4	5	8
7	Expressed	6	6	3	3	5	8
	Wanted	8	1	2	3	7	8
8	Expressed	3	5	1	2	4	3
	Wanted	9	3	7	5	5	5
9	Expressed	3	4	3	2	2	3
	Wanted	0	0	5	4	5	5
10	Expressed	7	5	3	7	5	4
	Wanted	7	6	4	5	7	3

Teacher		Inclusion Pre	Inclusion Post	Control Pre	Control Post	Affection Pre	Affection Post
11	Expressed	5	5	0	0	3	2
	Wanted	0	0	4	6	2	1
12	Expressed	5	7	5	5	3	3
	Wanted	7	7	7	3	5	5
13	Expressed	5	6	0	0	5	3
	Wanted	0	0	4	2	5	5
14	Expressed	7	6	6	6	4	3
	Wanted	7	6	1	1	8	5
15	Expressed	9	6	0	0	3	3
	Wanted	8	0	5	3	4	5
16	Expressed	5	4	2	4	4	2
	Wanted	0	1	2	2	5	1
17	Expressed	8	3	1	1	6	4
	Wanted	5	0	5	4	9	5
18	Expressed	7	7	0	2	9	8
	Wanted	7	7	1	6	8	8
19	Expressed	7	6	0	0	4	3
	Wanted	4	1	2	4	5	4
20	Expressed	5	6	3	4	2	2
	Wanted	0	0	6	5	5	5

APPENDIX H: STUDENT DESCRIPTIVE DATA

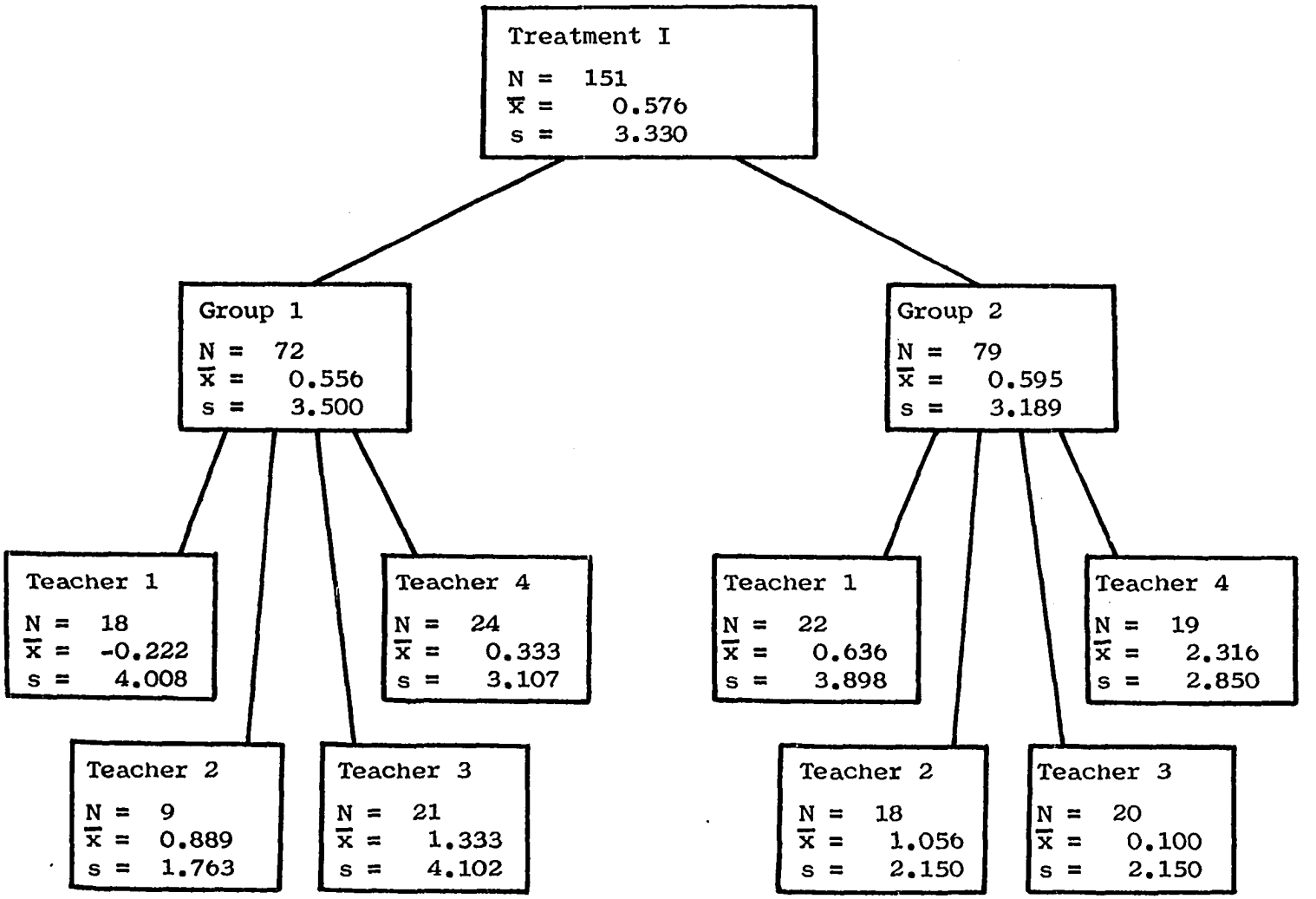


Figure 11. Piers-Harris differences: behavior (Treatment I)

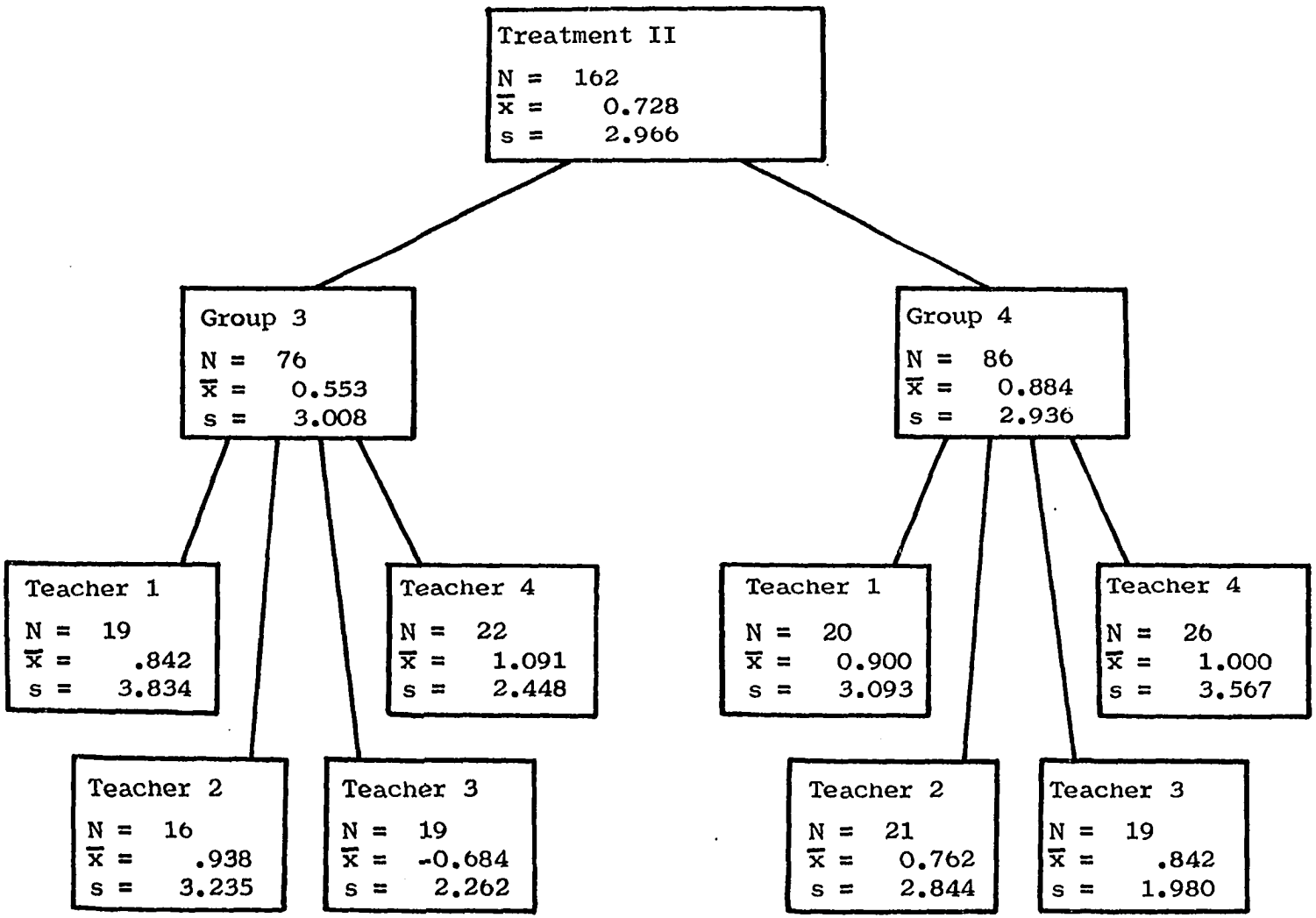


Figure 12. Piers-Harris differences: behavior (Treatment II)

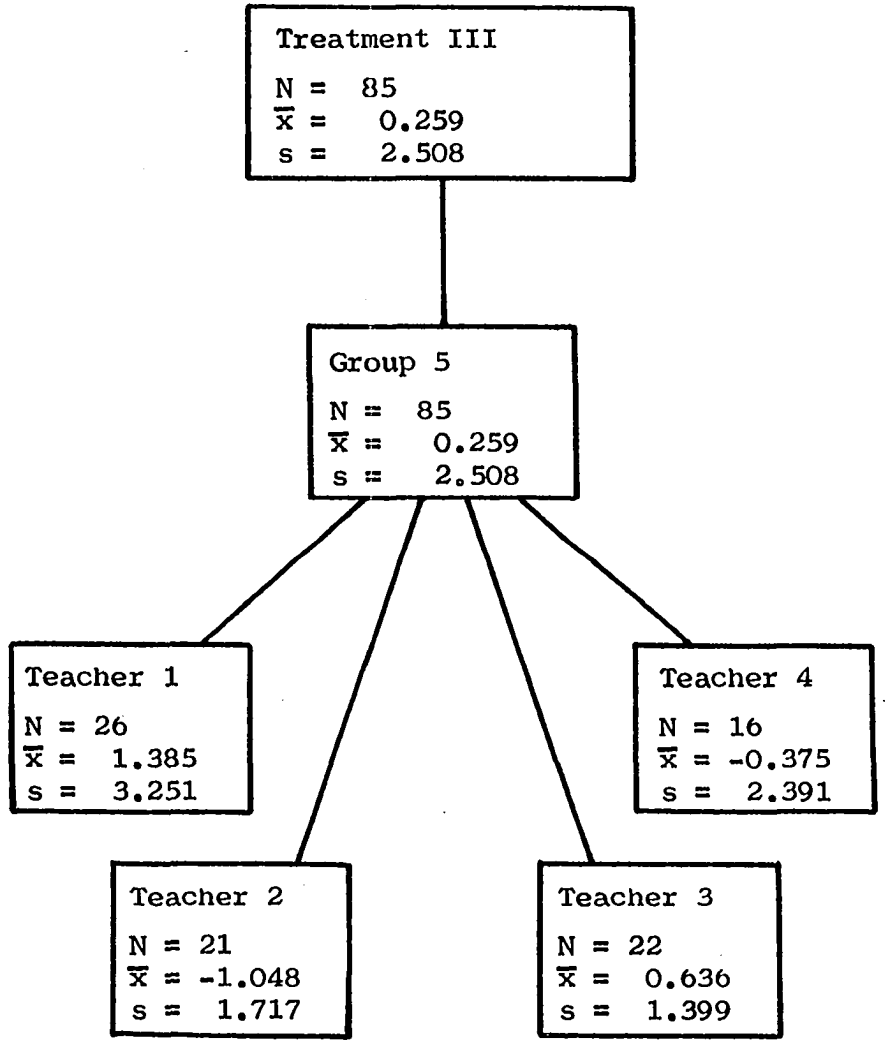


Figure 13. Piers-Harris differences: behavior (Treatment III)

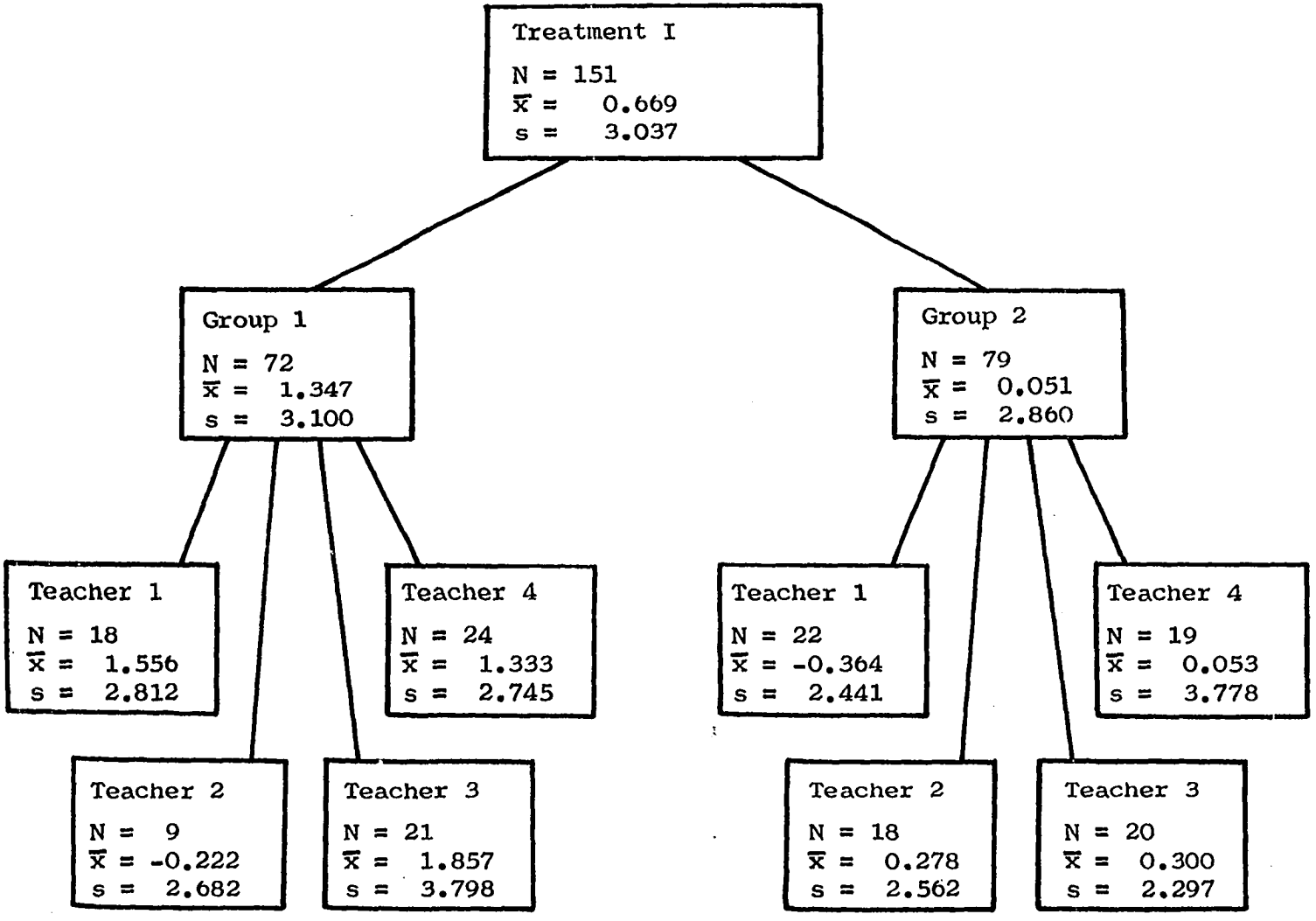


Figure 14. Piers-Harris differences: intellectual (Treatment I)

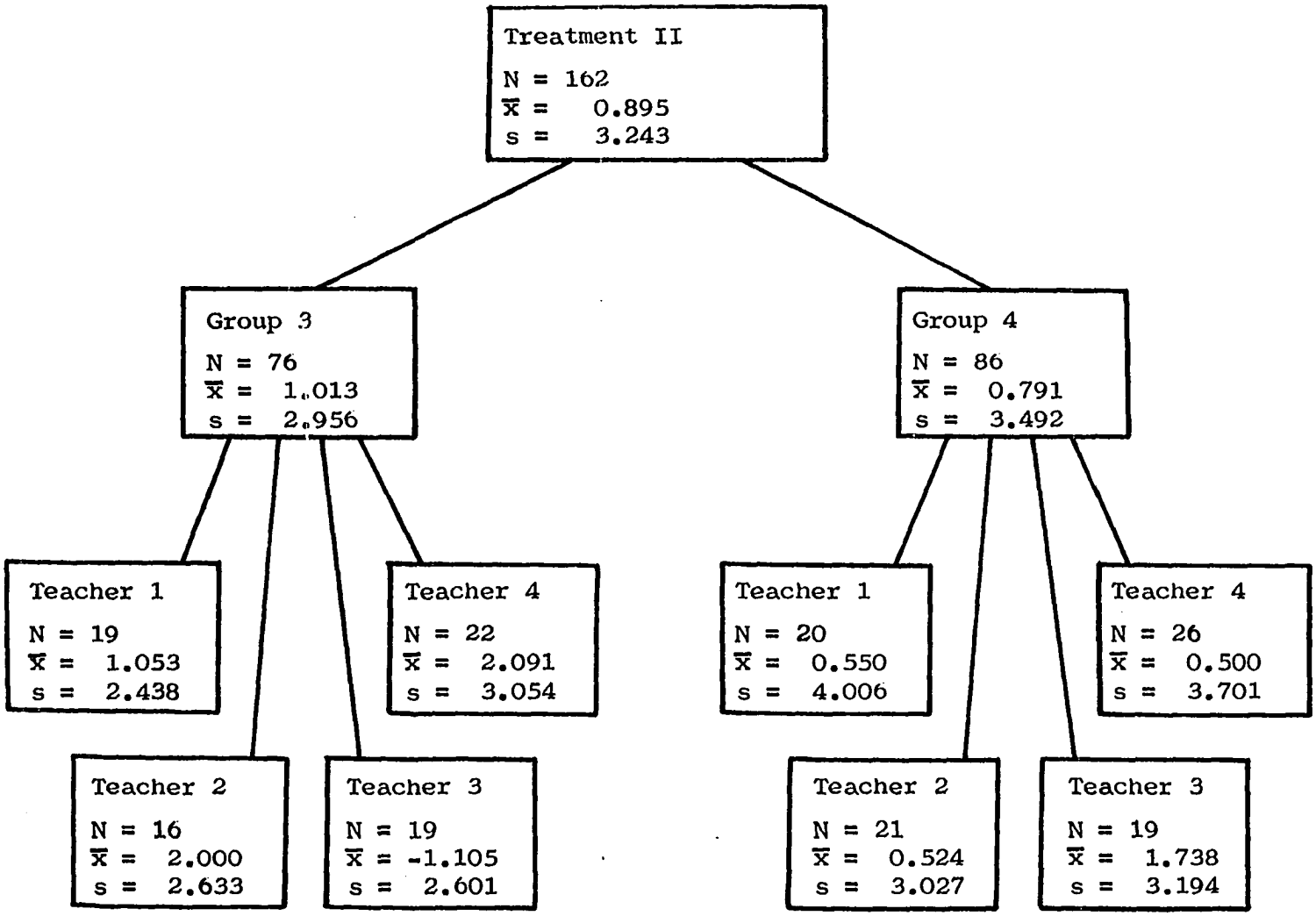


Figure 15. Piers-Harris differences: intellectual (Treatment II)

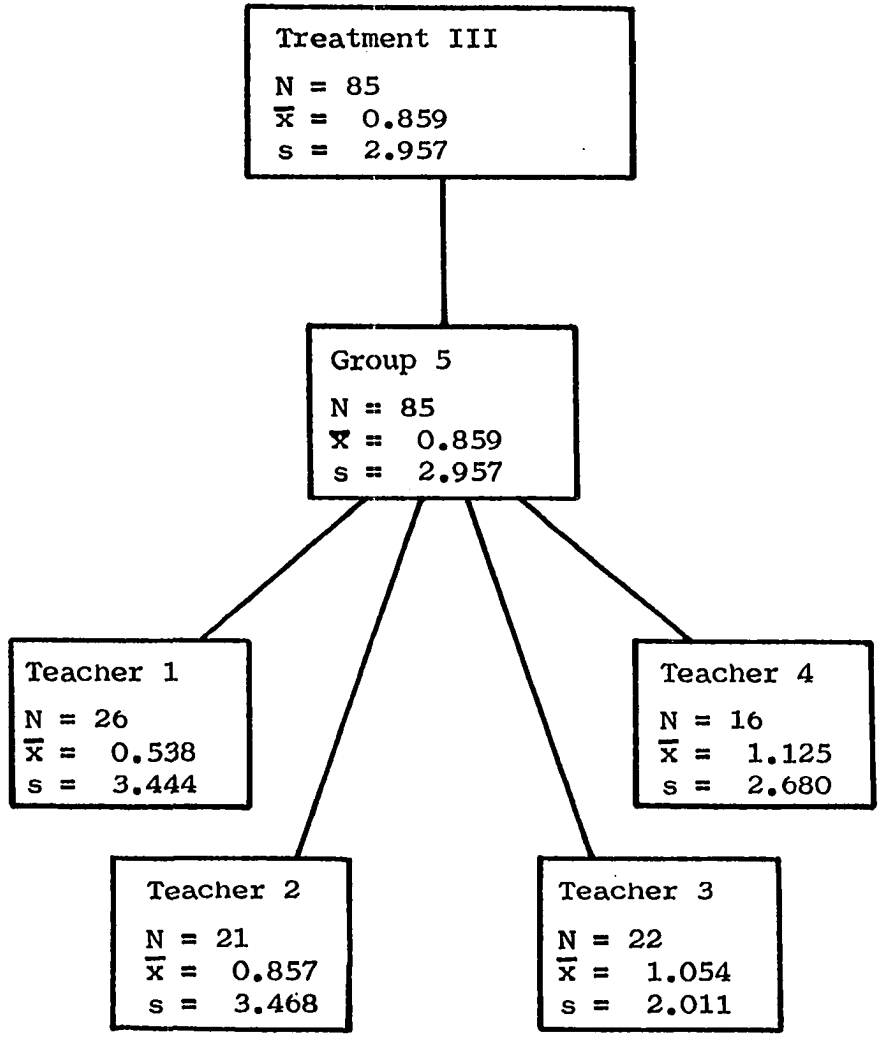


Figure 16. Piers-Harris differences: intellectual (Treatment III)

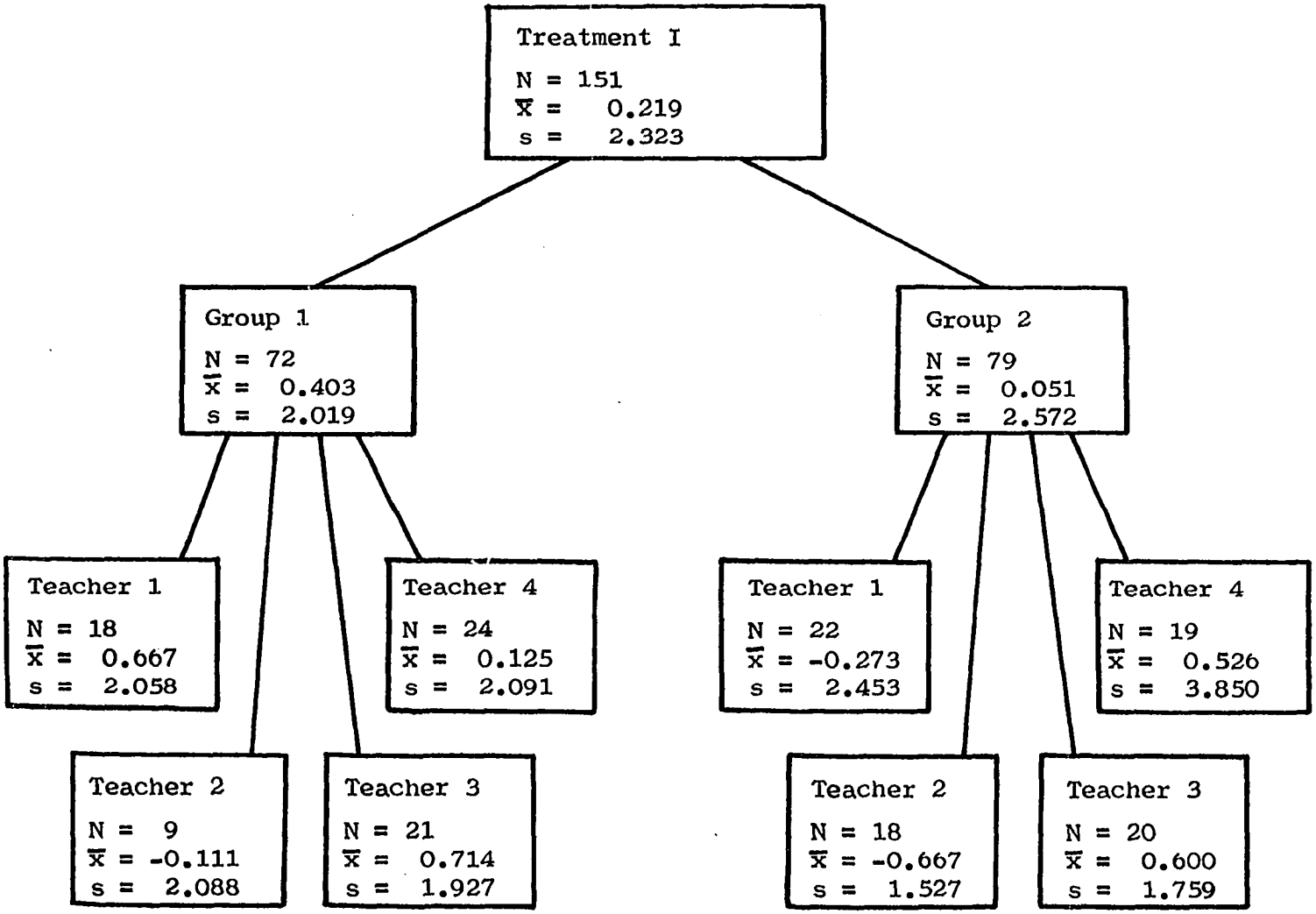


Figure 17. Piers-Harris differences: physical (Treatment I)

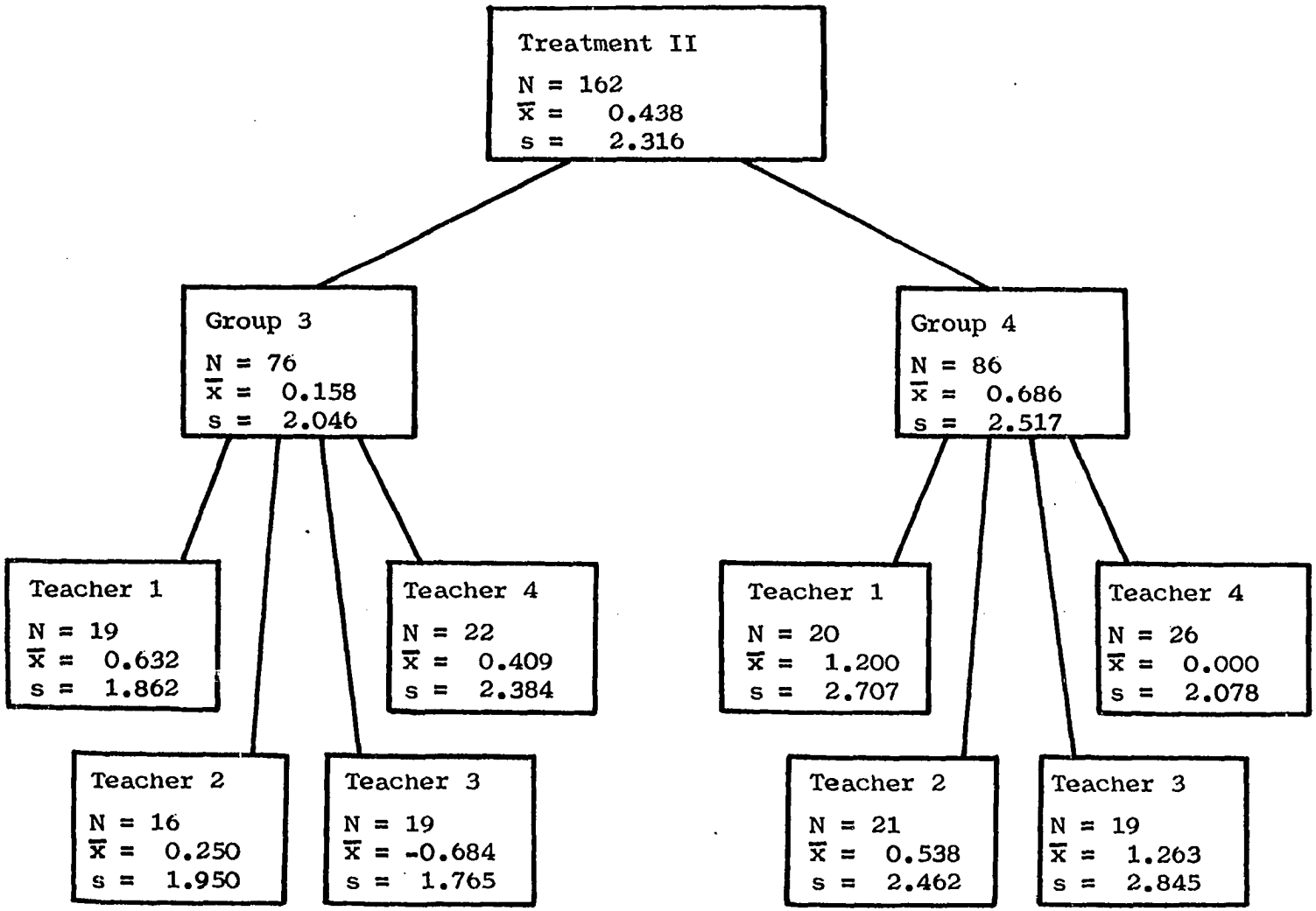


Figure 18. Piers-Harris differences: physical (Treatment II)

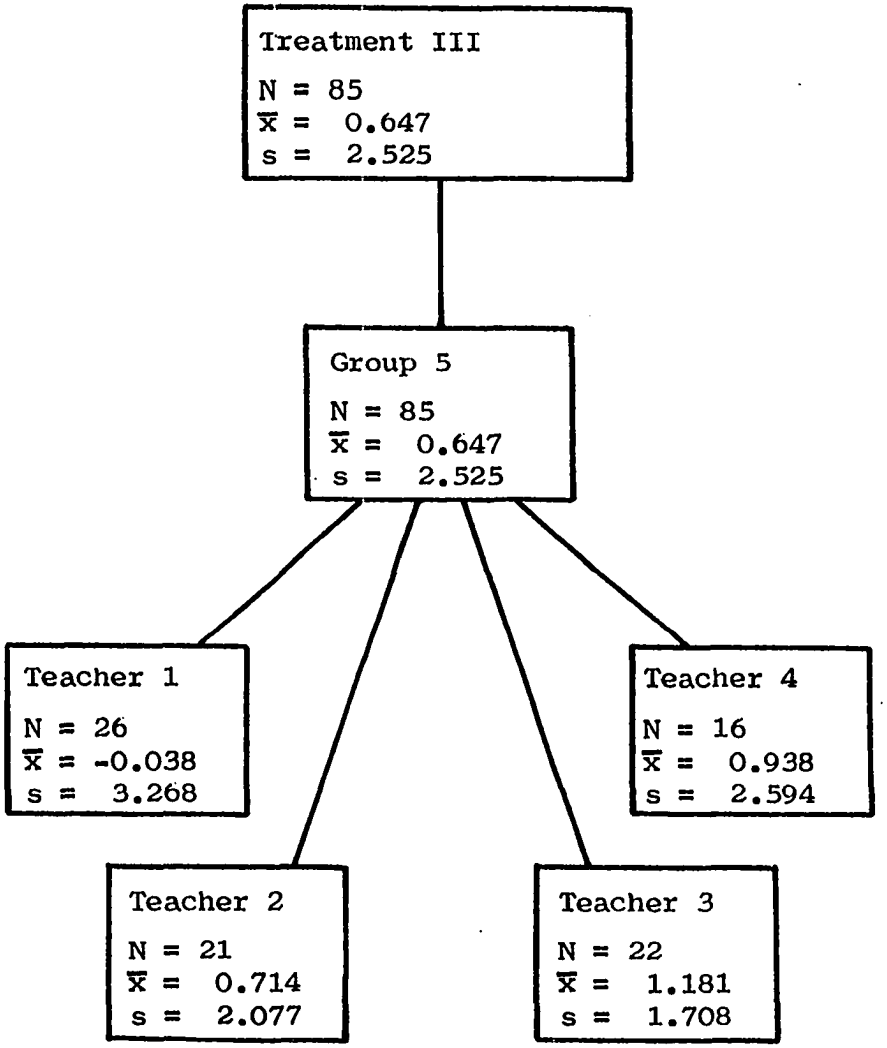


Figure 19. Piers-Harris differences: physical (Treatment III)

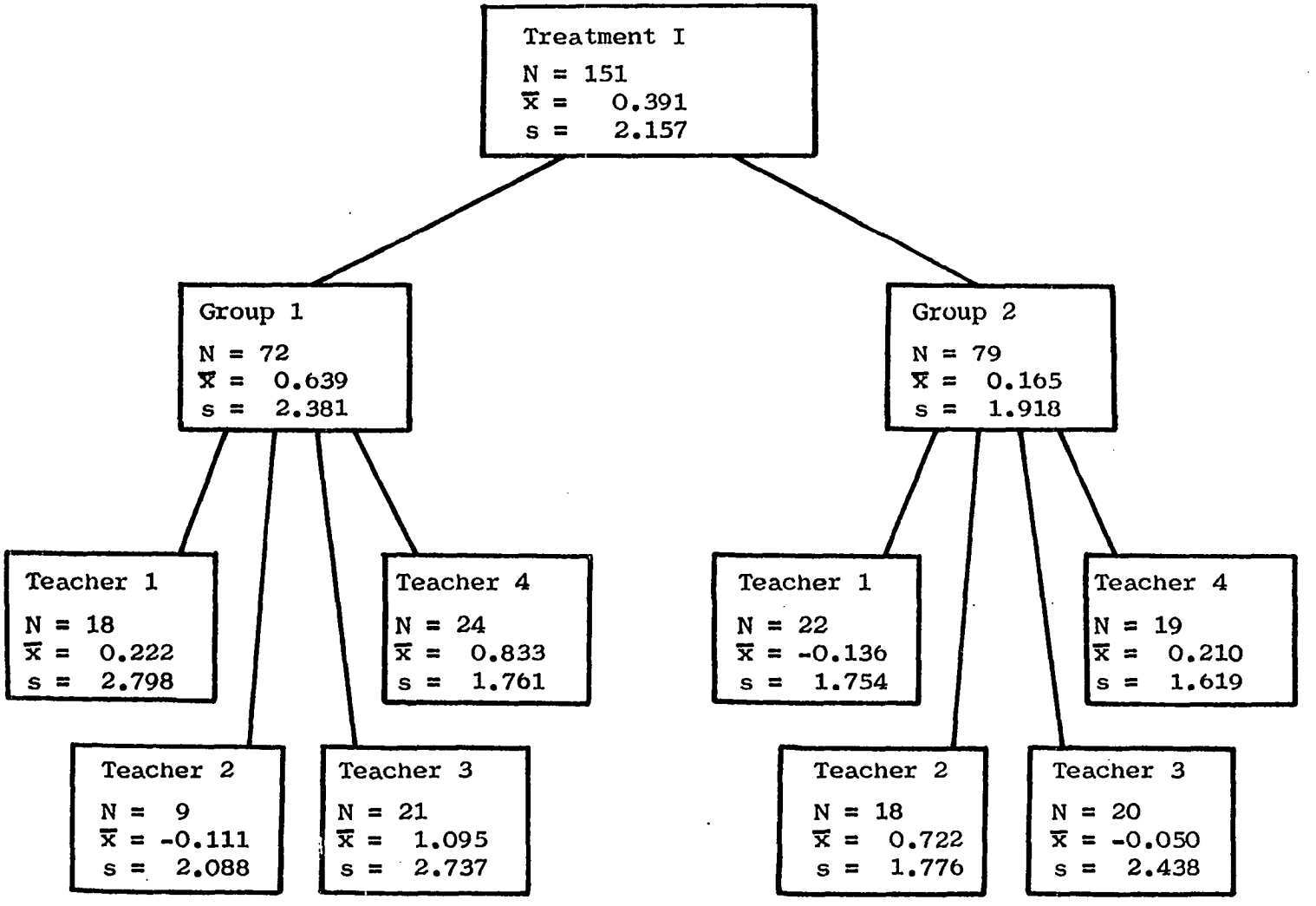


Figure 20. Piers-Harris differences: anxiety (Treatment I)

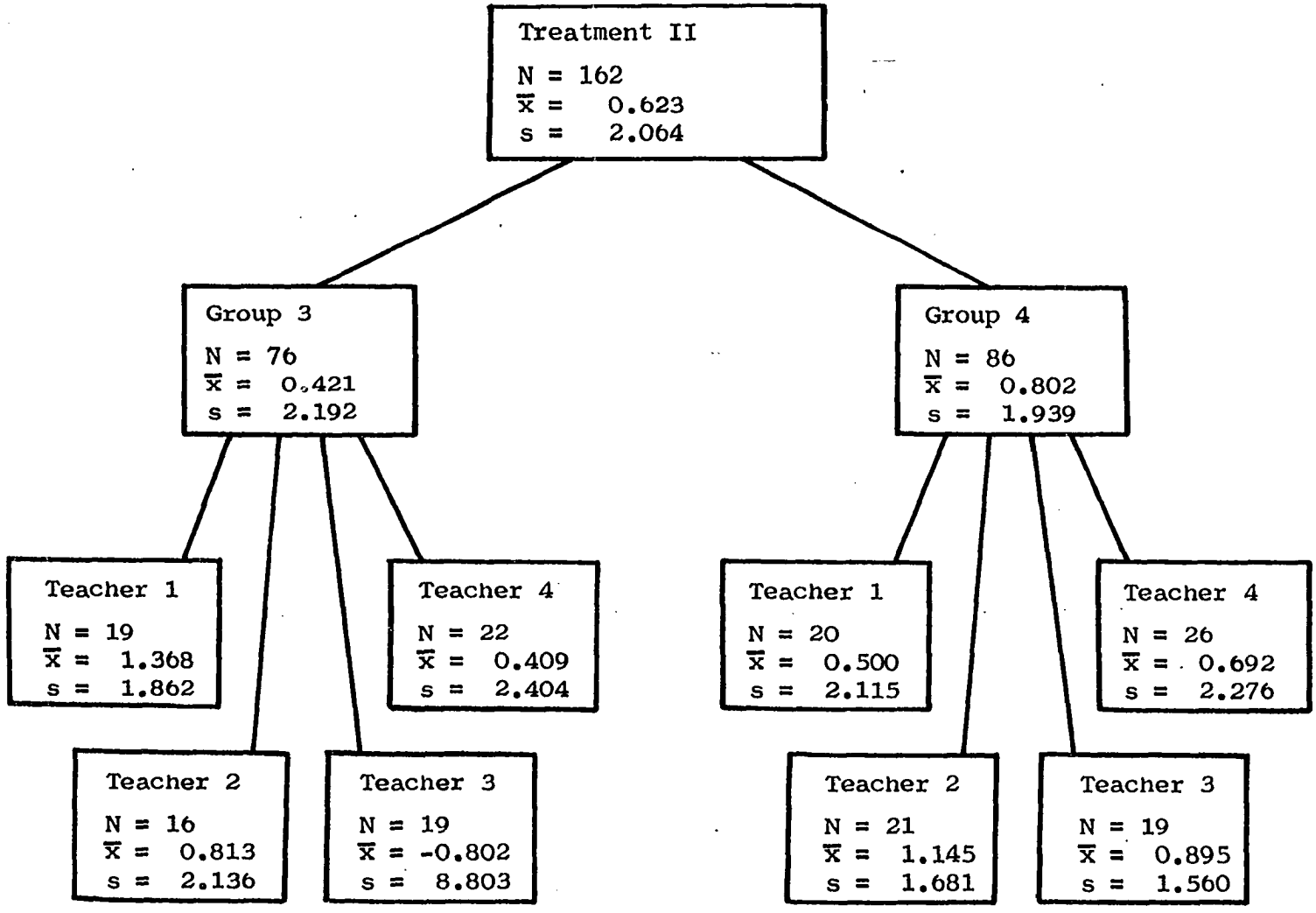


Figure 21. Piers-Harris differences: anxiety (Treatment II)

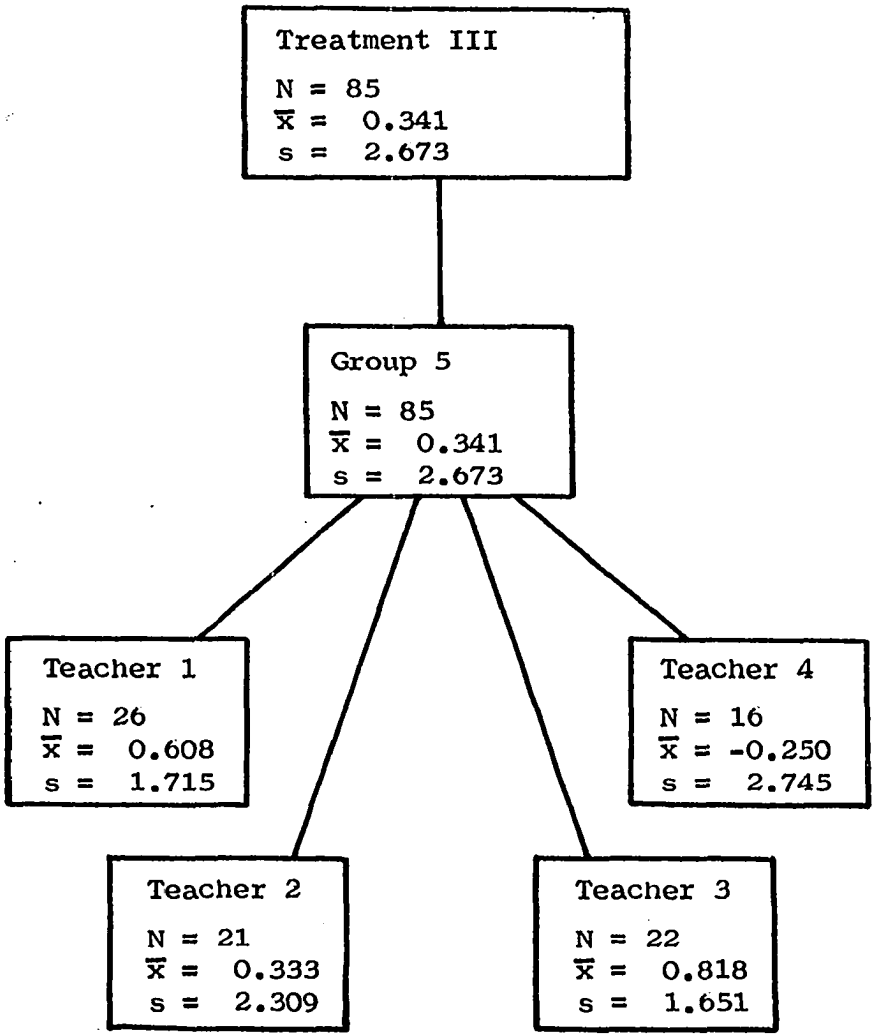


Figure 22. Piers-Harris differences: anxiety (Treatment III)

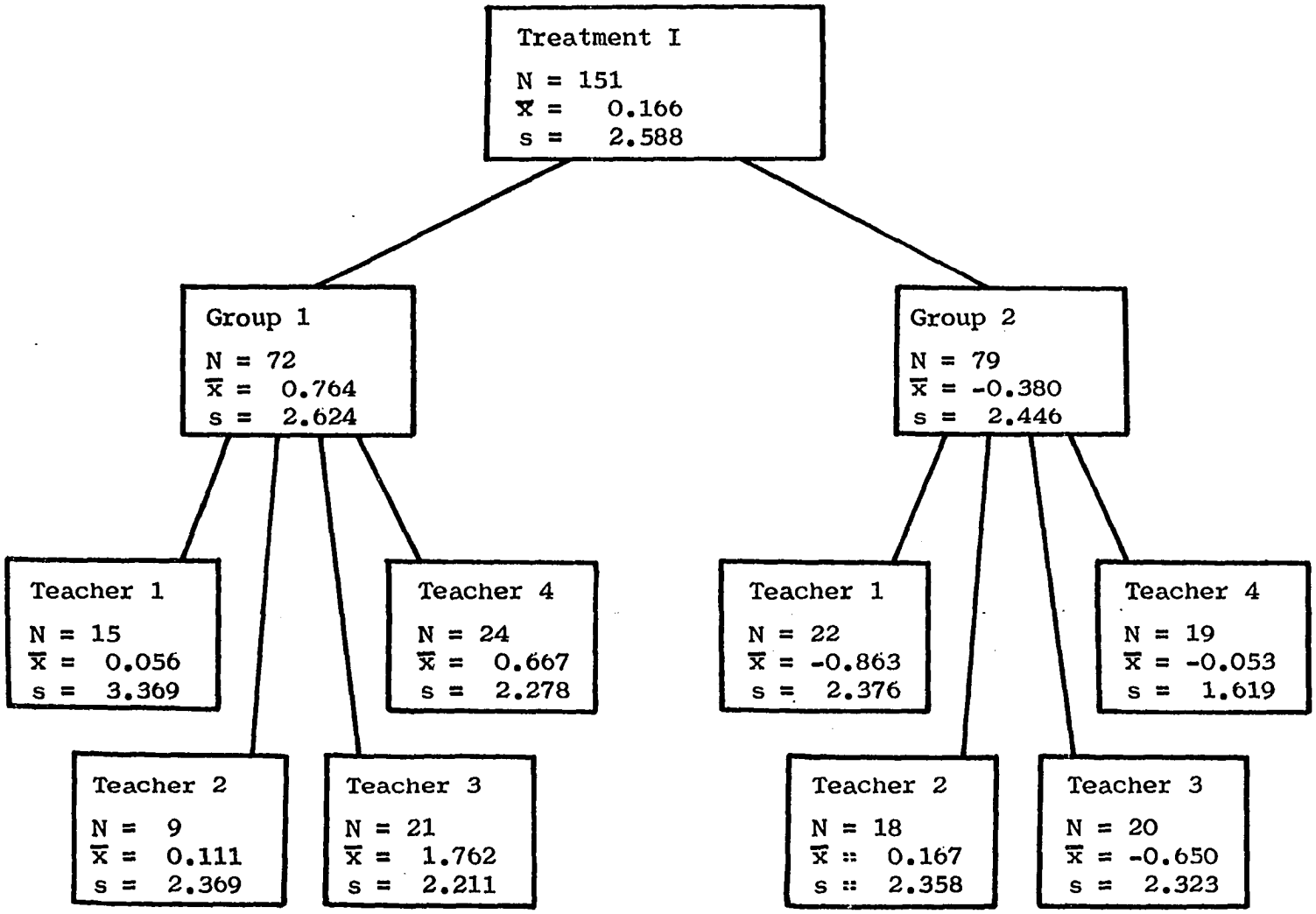


Figure 23. Piers-Harris differences: popularity (Treatment I)

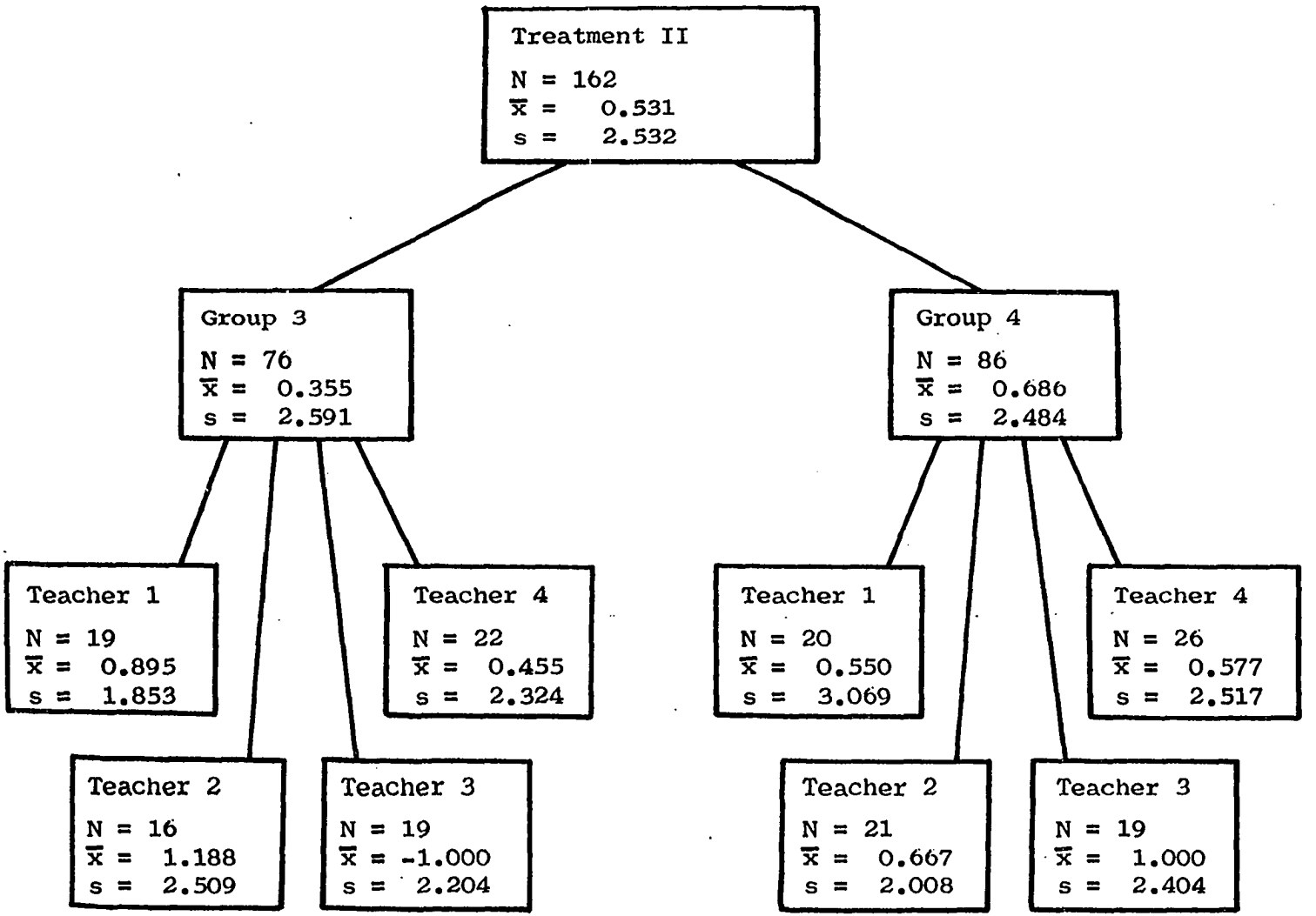


Figure 24. Piers-Harris differences: popularity (Treatment II)

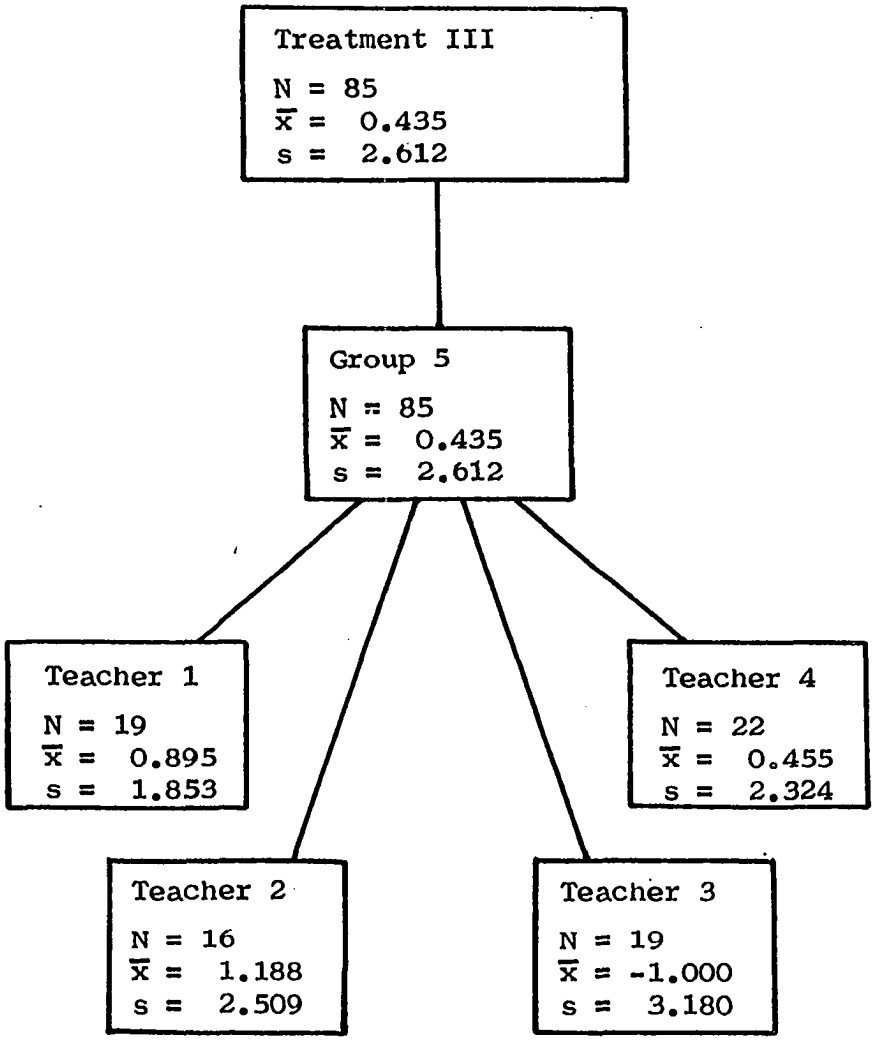


Figure 25. Piers-Harris differences: popularity (Treatment III)

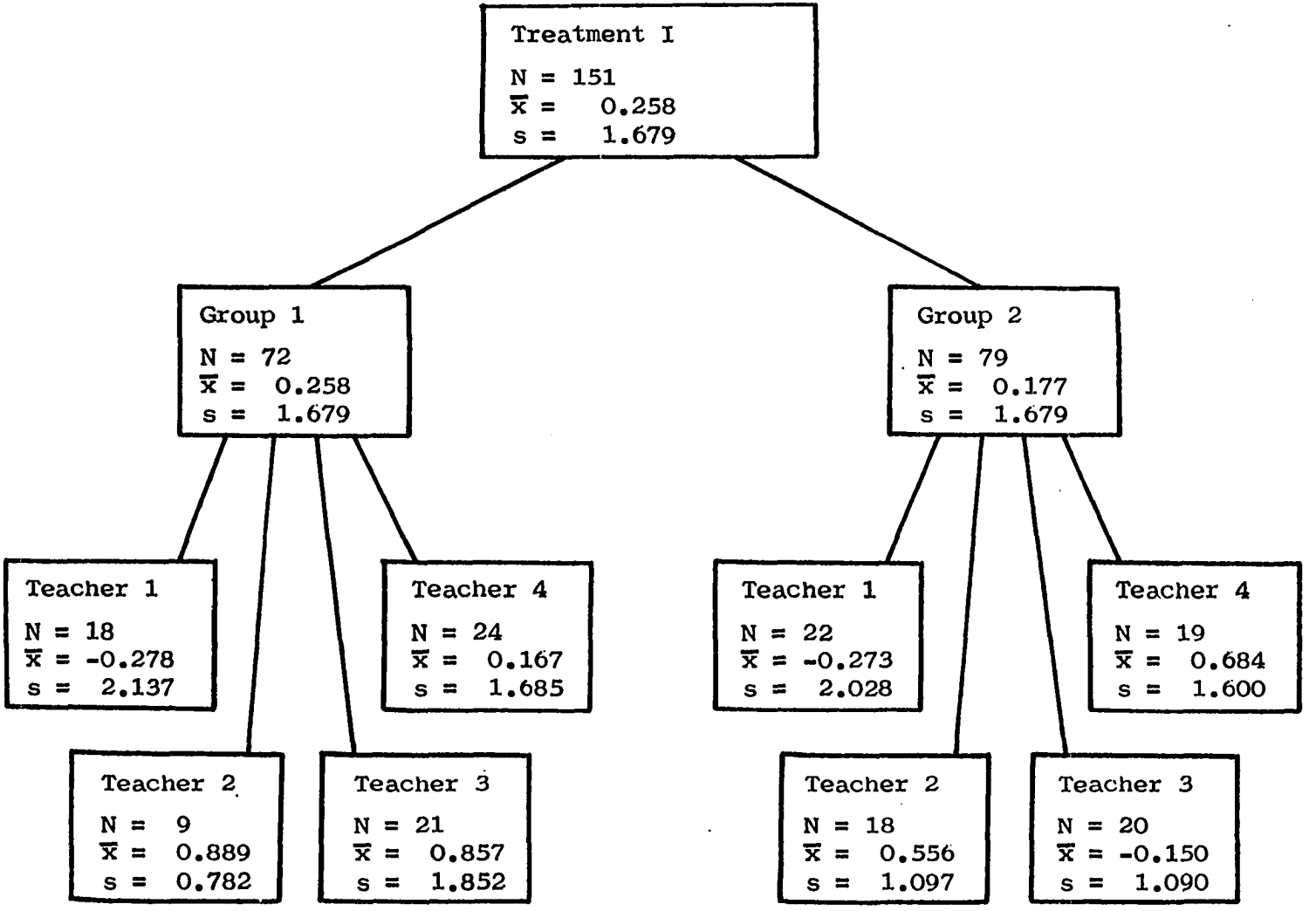


Figure 26. Piers-Harris differences: happiness (Treatment I)

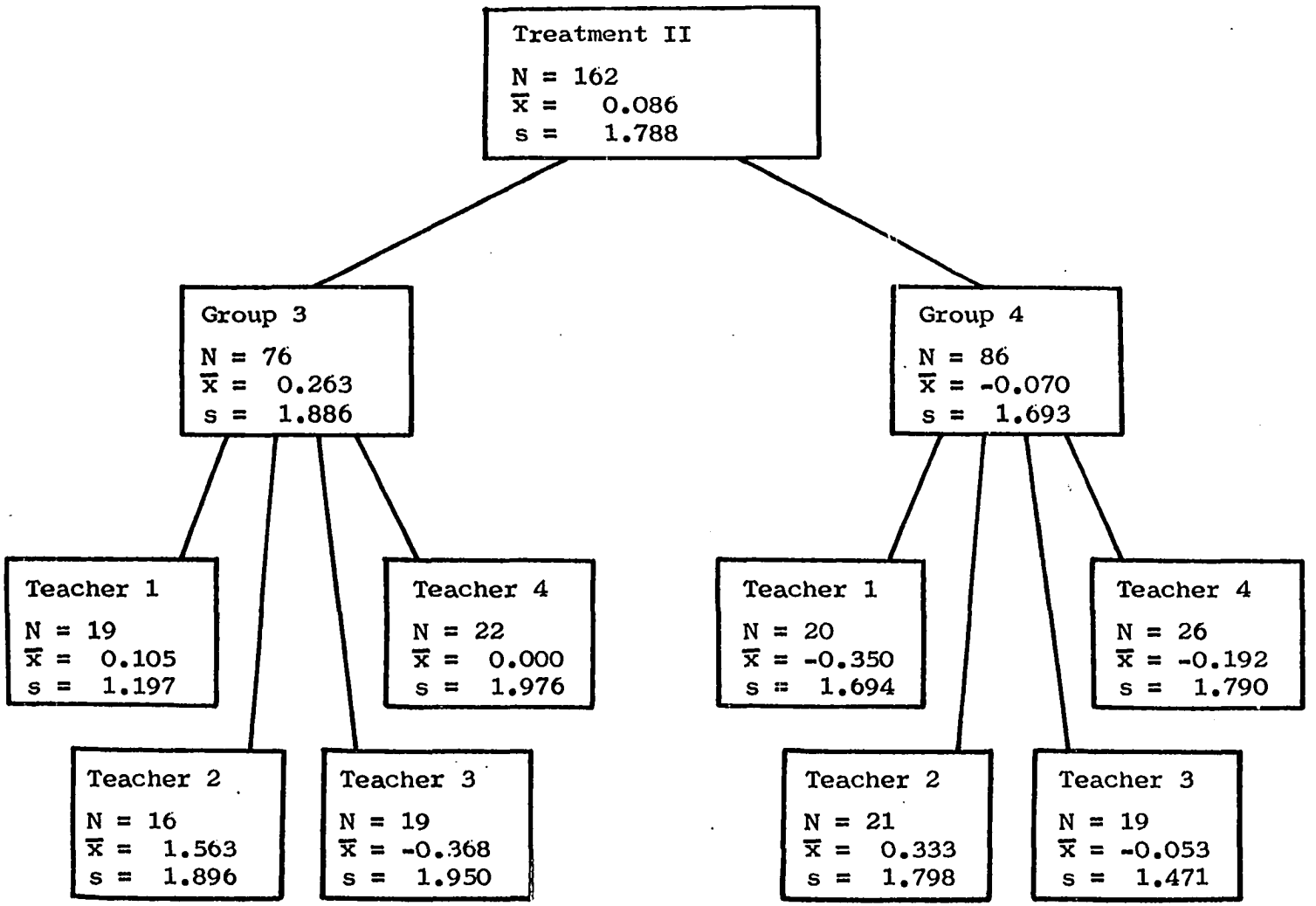


Figure 27. Piers-Harris differences: happiness (Treatment II)

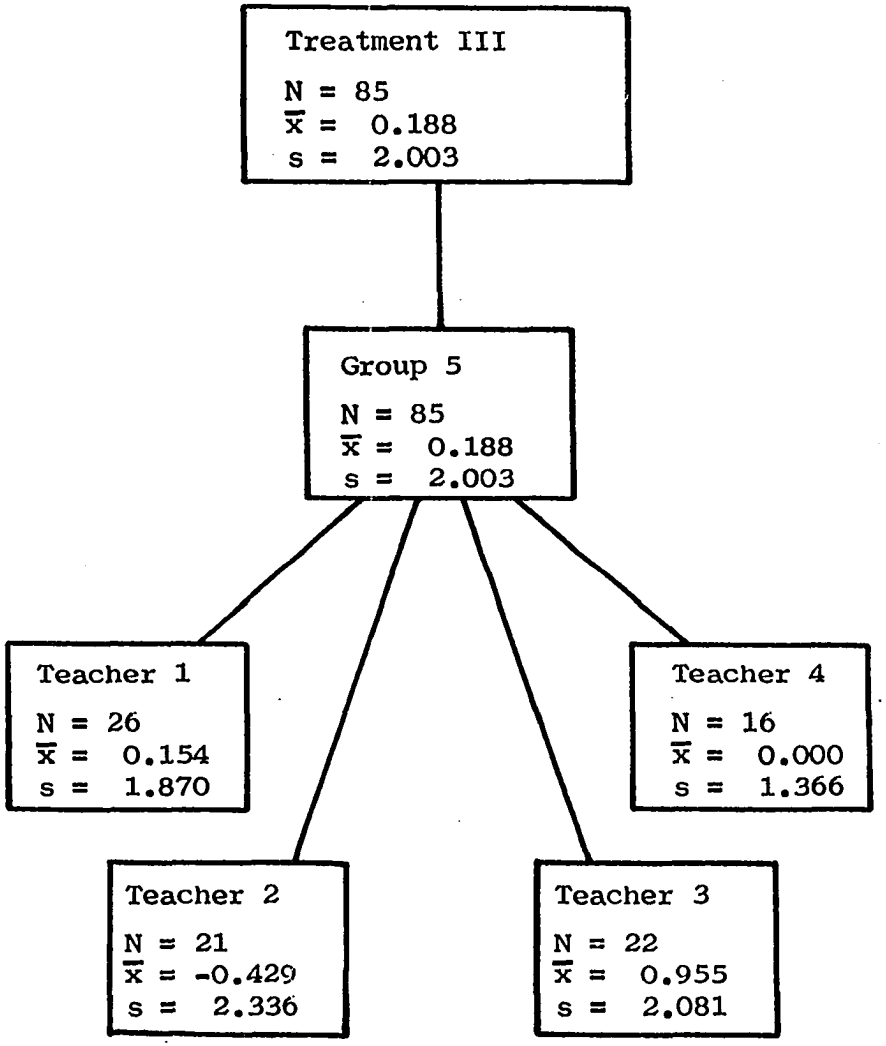


Figure 28. Piers-Harris differences: happiness (Treatment III)

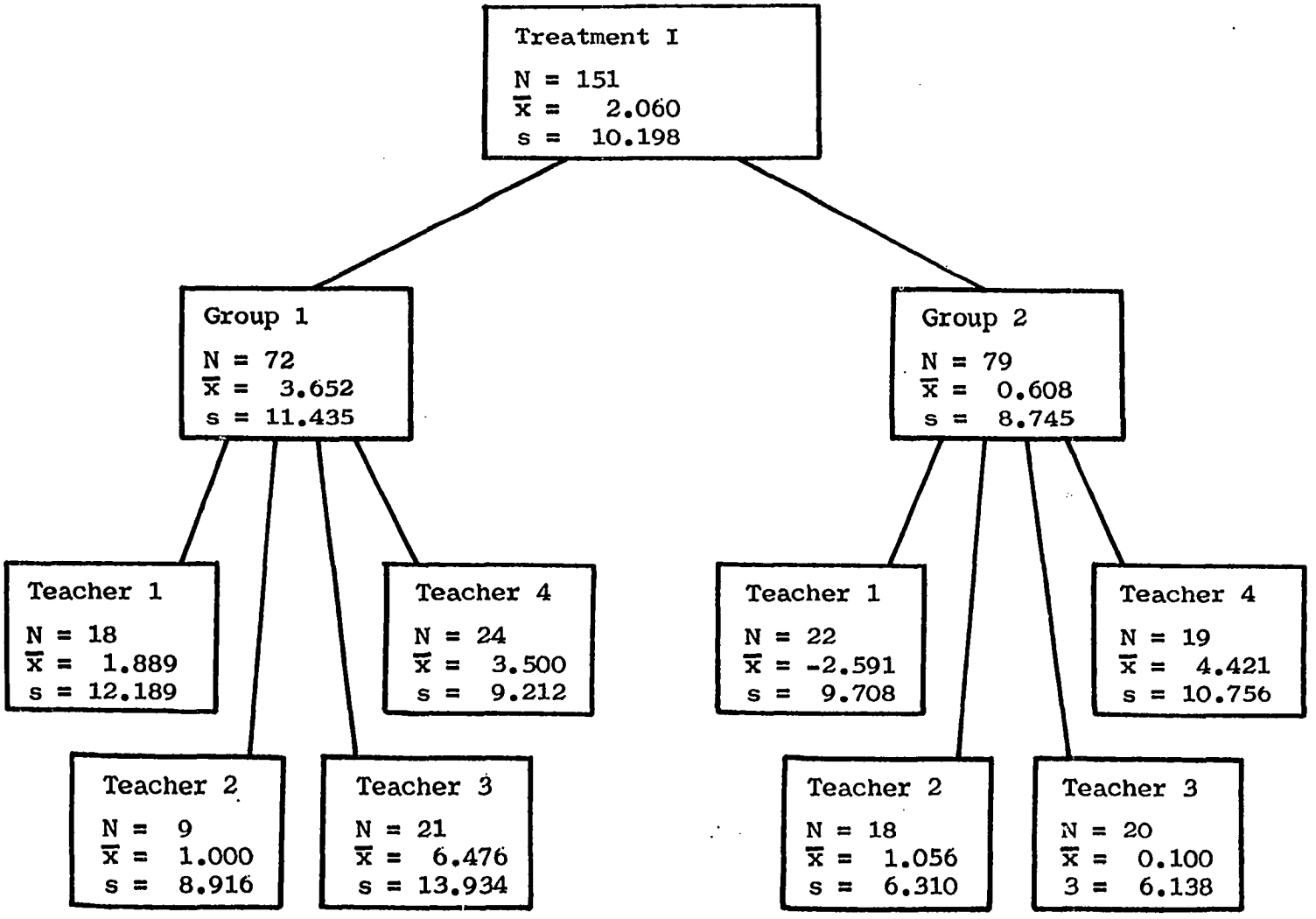


Figure 29. Piers-Harris differences: total (Treatment I)

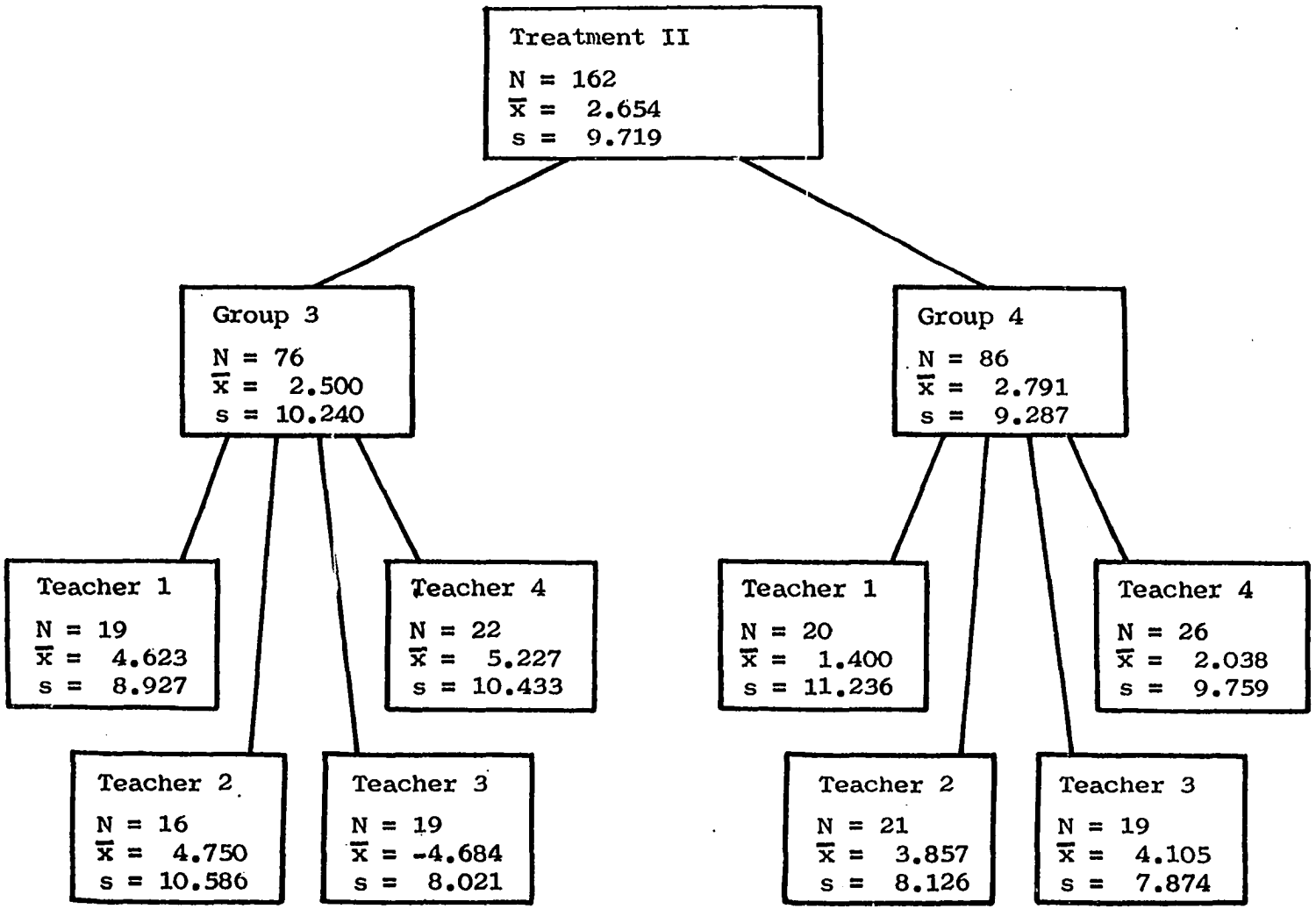


Figure 30. Piers-Harris differences: total (Treatment II)

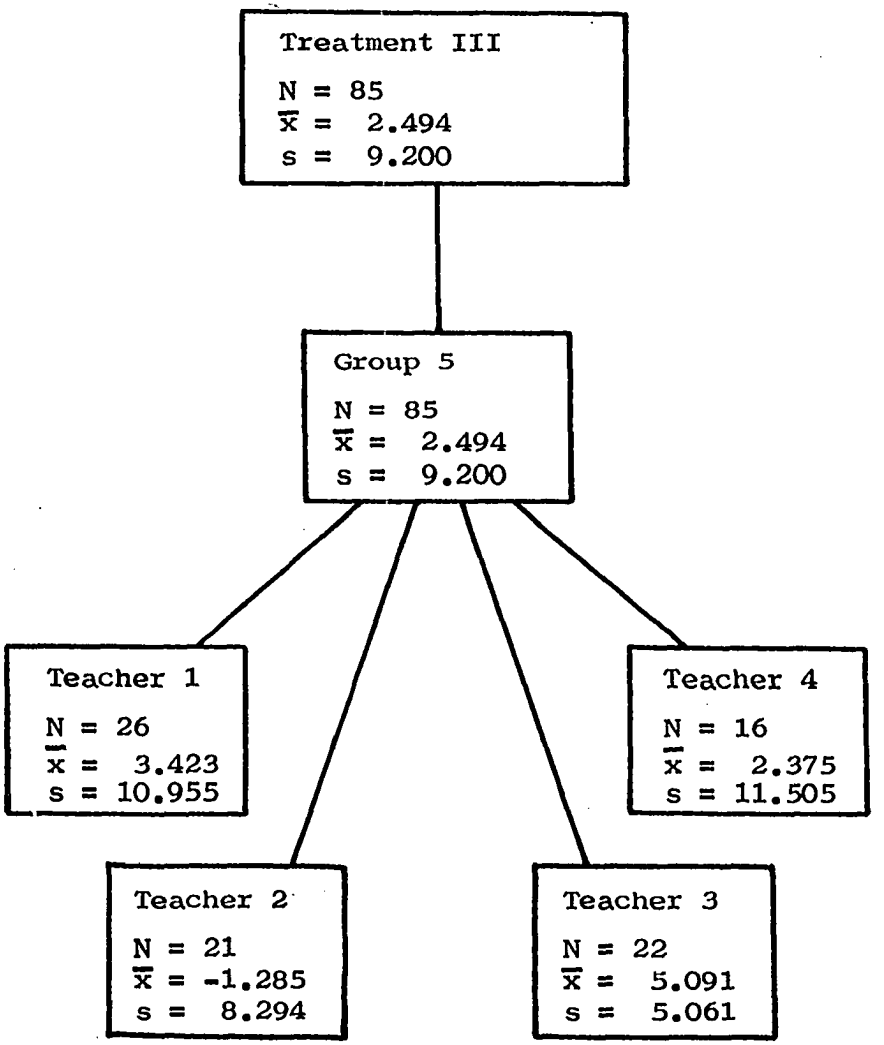


Figure 31. Piers-Harris differences: total (Treatment III)