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ABSTRACT

This study investigates the effects of teaching decision-making skills on the classroom behavior of middle school problem students. Small groups of students met for 15 weeks with a counselor who adapted the "Deciding" program (College Entrance Examination Board) as the decision-making paradigm. Coppersmith's Self-Esteem Index and Behavior Rating Forms and Gordon's Survey of Interpersonal Values were administered before and after the program to determine if there were any changes in the behavior of students as revealed through self-esteem, value changes, and behavior ratings. Results of the tests indicated almost no significant changes, which was viewed as a result of deficiencies in the instruments themselves. Some measurable changes, however, did occur following the program, and included: (1) a decrease in the number of times the students were removed from class; (2) significantly improved grades; and (3) increased self-worth and self-esteem feelings, as self-reported via tape recordings. (Author/PC)

THE EFFECT OF A DECISION-THEORY PARADIGM ON THE CLASSROOM BEHAVIOR OF INDIVIDUAL MIDDLE SCHOOL STUDENTS REFERRED TO THE COUNSELOR

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CHAPTER I

THE PROBLEM AND ITS DIMENSIONS

The school counselor is continually involved with students who encounter special challenges and problems in the process of growing up. A large part of each counselor's case load falls into the category of behavior problem students. The search continues to find effective means by which to help these young students function and remain in the educative process.

THE PROBLEM

Statement of the Problem

The need for developing a model which could affect the school behavior of students who are unable to conform to classroom expectations has always been of concern to counselors. These "acting out" or unmotivated youngsters are daily visitors to guidance offices either via self-referral or suggested referral from the administrator responsible for discipline in the school. Once the student presents himself to the counselor for help, it then becomes the responsibility of the counselor to devise therapeutic techniques which will influence or alter the behavior of the student. If the counselor is an agent for change, as this writer supports, then the counseling process should bring about change in his client's behavior. The process of counseling an individual is in fact a series of decision-making pro-

cedures as the counselor and the client together tackle one problem at a time to reach a goal identified by the student as desirable. Each strategy is tested in the procedure and this strategy is evaluated by weighing the outcomes or consequences and selecting possible alternatives or strategies as new information becomes available. One of the measures of the success or failure of the counseling process can be in terms of the behavior of the individual student.

Since accountability has become of increasing citizen concern[1] as each taxpayer and his elected representative press for educational results produced by a given expenditure, it becomes imperative that counselors search for techniques to identify and measure change in their clients' behaviors. This accountability means collecting not only objective test data that show improvement in the skills, e.g. reading and mathematics, of youngsters but also data that reflect change in the unmotivated, underachieving, or behavior problem student as well. Working primarily in the affective domain, counselors have found themselves much of the time delegated to the role of change-agent for students identified as behavior problems. Accountability mandates have made it necessary to search for effective techniques to keep students functioning in the mainstream of education. Dr. Lessinger proposes, "This is a call for accountability for results, a growing demand for changes in the way schools are managed."[2]

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[1] Dr. Leon Lessinger, Every Kid a Winner: Accountability in Education (New York: Simon and Schuster, 1970).

[2] Ibid., p. 8.

By professional interest, specialization, and daily functioning, counselors have found themselves in an unique position for exploration into new decision-making experiences which can affect students' functioning. Whether counselors meet the challenge by testing some of these propositions through active research and then sharing their findings with other professionals is an important, perhaps even imperative, survival point.

DIMENSIONS OF THE PROBLEM

Unmotivated Adolescents

It has become increasingly apparent that young people of the 70's view life rather uniquely and in an individualistic manner. Although adolescence has been historically a time to identify problems and chaos resulting from these, Dr. Lyell suggested the following point of view:

> The "who he is," or his sense of identity, is disturbed at adolescence because the "what he does" is not culturally valued. What the adolescent does is looked down on; his confusion and identity problems follow from this...I would suggest that if what a group does is culturally valued, the individuals in the group gain a sense of well-being.[1]

This supports the proposition of many that there are no unmotivated students; in fact, they are always motivated but not necessarily in the direction adults or schools specify. Education has been accused of basing its practice upon the external stimulus-internal response notion but trying to control both because society expects this control.

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[1]Ruth G. Lyell, "Adolescent and Adult Self-Esteem as Related to Cultural Values," Adolescence, 8:85-92, Spring, 1973, p. 85.

If some students develop ideas of their own about what is good for them or important to them and in this process create problems, then another person--often the school counselor--is expected to help these unmotivated or reluctant students to adjust to the school process. Pine and Boy described this course of events as perceptual malnutrition:

> Because of having been told and directed so often as to "what to do," "when to do it," "where to do it," "how to do it," and "why to do it," as the child enters adolescence he relies less and less on his internal capacity for growth. His relationships with peers, the perceptions and evaluations of parents and other adults, his role in the culture of the community and society, and his classroom experiences, rather than fostering growth many times delimit the opportunities for growth or feed the self-concept with images of inadequacy, failure, and incompetence. Perceptual malnutrition, the illness of not growing, results.[1]

Thus the adolescent builds a defensiveness to protect his inner core and the self[2], and proceeds with all his resources from self-growth in the direction of self-protection. He finds it easier after failure or mistakes to take the punishment for not trying than to be ridiculed for being wrong. He uses non-learning as a means of

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[1]Gerald Pine and Angelo Boy, "The Counselor and the Unmotivated Client," Personnel and Guidance Journal, 44:368-371, December, 1965.

[2]This writer differentiates between these two concepts. The inner core contains the basic needs and drives that are the common denominators of all humans while the self is the unique element of the personality learned from birth and differentiated through childhood and adolescence. This is supported by Lawrence Brammer and Everett Shostrom in Therapeutic Psychology (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1968), pp.46-49, 103-107.

fighting back against parents and others who have hurt or rejected him and his efforts. It is much easier when he has not succeeded in his performance,as others expected him, to pretend not to care than to permit others to know they have "put him down" again. The student thus has protected his self-perception as this drama is repeated with more frequency and his behavior paths are cut deeper and deeper.

These students are approaching their future with little understanding or commitment to their present. Whatever the attitude of these young persons, they are developing life styles that provide alternatives for the planning of their lives. Their options exist in increased numbers, making the task of deciding among them more difficult. Most school counselors encounter scores of reluctant, unmotivated clients and recognize the need to develop strategies for working with these students.

Values

The current press for accountability in education has thus far concentrated on measurement in the cognitive and psychomotor domain and largely ignored the importance of the affective domain--attitudes and values. Yet, affective domain is an area of major importance in that it is a determiner of success or failure, not only in school but in life as well. American values, in particular those associated with schools, have been deeply rooted in the Judeo-Christian heritage. However, our society has been modifying somewhat the traditionally held value system as our prosperity has brought about affluence to the masses. Values evolve as changes occur in

the society and few will dispute there have been many changes in American society. Through this change, Williamson proposed,a hierarchy of values has evolved because some values have a higher priority than others and they are arranged by individuals in a hierarchy of significance from most to least desirable.[1]

Value commitments serve as a relevant basis for the development of all humans. But this present research is concerned primarily with the adolescent who is still developing, exploring, "trying on" various values to find that which he will eventually adopt as his own. This does not mean that no choices have been made before adolescence but rather this has been occurring both within the family and the school during childhood where the youngster has been evaluating role models to use in constructing his own life. No doubt this process continues throughout the lifetime, but it is particularly vital to develop value commitments during adolescence as the identity process is so critical. For it is at this stage of development that the student tests roles as he tries to perceive what "the person" stands for and tries out several roles for the one that fits him best before he commits himself to it.

Certainly the mass media reminds us constantly that there is a value crisis in our society in general, so it is little wonder the adolescent frequently is unable to sort out his value system. Behavior is a reflection of values; could it be that many presently

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[1]E. G. Williamson, "Value Options and the Counseling Relationship," Personnel and Guidance Journal, 44:617-623, February, 1966.

identified emotional problems are really problems of value disturbance? The Raths, Harmon, and Simon research supports this:

> We have found that several kinds of problems children often exhibit in school and at home are profitably seen as being caused by values, or, more precisely, by a lack of values. To put this another way, we have found that when children with certain behavior problems are given value experiences of a particular kind, those problems often ease in intensity and/or frequency. In short, there is strong support for the notion that values must be added to the possible explanation of the children's behavior problems.[1]

There is much concern today with the problem of values. Changing world cultures, religious influences, social mores, and family structures all play a significant role in the complex reorientation of our value system. With these dramatic changes, it is no longer possible to operate in the values framework of our historical past and this has created a climate in which individuals in every culture seem less certain and more troubled as to what they value. There is little wonder that this presents a problem to the adolescent as he finds conflicts in values evidenced everywhere. Metcalf edited a yearbook for the National Council on Social Studies which dealt with values in education and suggested:

> ...the attempt at conflict resolution may result in an increased understanding of and respect for the other person, a kind of "getting below the surface." ...efforts to resolve value conflict help achieve a deeper realization that we all have deep committments that deserve consideration and respect.[2]

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[1] Louis Raths, Merril Harmon, Sidney Simon, Values and Teaching (Columbus, Ohio: Charles Merrill Books, Inc., 1966), p. 4.

[2] Lawrence Metcalf (ed.), Values Education: Rationale, Strategies and Procedures, 41st Yearbook, National Council for Social Studies (Washington, D.C.: National Education Association, 1971), p.164.

Adolescents in particular need support for and experiences in the valuing process. Student behavioral symptoms most typically associated with lack of values include: apathy, indifference, wide swings in attitudes, general inconsistency, lack of purpose, constant hedonism, tendency to nag and dissent. Adolescent behavior often states in visible and obvious terms that they are in a state of confusion, conflict, and/or unmet needs. An adolescent's total relationship to society needs clarification; and the valuing process can be the initiation of charted road signs to help a person determine what is important to him in relationship to society and to decide how to use his life.

Self-Esteem

Succinctly stated, self-esteem can be identified as the individual's perception of his worth and is linked to the concept of personality integration. Furthermore, a person's response to his social environment is a function of self-esteem as self-esteem mediates between the social stimulus and response.[1] In working closely with youth, it has become obvious that a considerable need exists for the expression of feelings about oneself and how this self fits into the environment/milieu in which it functions. If these feelings are suppressed and go unexpressed verbally, they often lead to the acting out behaviors which can be so disruptive. The adolescent is in the process of truly "sorting out" himself as part of his identification process as he asks "who am I?" in terms of "who accepts and values

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[1]Robert Ziller, Joan Hagey, Mary Dell Smith, "Self-Esteem: A Social Construct," Journal of Consulting Psychology, 33:85-95, 1969.

me," "what is right," "who loves/needs me," "what can I do in life." The "sorting out" process results from input, feedback, and assessment which is on-going and never-ending. It is through this continual evaluation or assessment process that the individual develops the hypotheses he holds about himself--his self-esteem.

Certainly the academic procedures affect the youngster as he presses forward in his development. Studies have indicated that success or failure in school significantly influences the ways that students view themselves.[1] Students experiencing success in school continue to develop positive feelings about themselves while those encountering failure develop negative feelings of themselves. The students who consistently receive the poor grades and daily function on the minimal end of the evaluation scale suffer greatly in loss of self-esteem. They then begin to show dissatisfaction and even hostility toward the subject, the teacher, the school, and even their classmates. They find the whole world out of step with them and constantly rationalize their performance.

Many practices of schools contribute to the low self-esteem feelings held by students. Ability grouping is one practice sometimes used where children are placed in certain categories. This process of sorting and labeling has been individually destructive as well as bringing about self-fulfilling prophecies.[2] These kinds

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[1]William W. Purkey, Self-Concept and School Achievement (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1970), p. 27.

[2]Ibid., p. 41.

of discrimination and segregation practices are readily comprehended by the students. Since the schools (representing the Establishment to the adolescent) deem it all right to label, the students quickly adopt it as they ridicule, scorn, and label others. This labeling process promotes a circular action and is demeaning individually and in turn educationally.

Traditionally the school expects the child to adjust to it rather than the school adjusting to the child. So all too often, schools are places where students face daily reminders of their limitations, failures, fierce competition, continuous evaluation, and a host of other techniques to mold the child to meet the school's expectations. The tenet that the worth of the individual is paramount is overlooked somewhere in the maze. The negative feelings of the individual are nurtured, perhaps unintentionally but nevertheless fulfilled, oftentimes in the school. As a result many children give up early in school, feeling that with no attempt there can be little or no humiliation. Or at the other end of the continuum, they proceed to "act out" all their negative feelings about themselves as if on a crusade to prove just how little they are worth. Either behavior is a public manifest of low self-esteem.

By no stretch of the imagination is the school totally responsible for the development of an individual's low self-esteem. Being an adolescent in our society is to have little worth as our affluence demands money, high salaried jobs, materialistic evidences of "success." The adolescent has none of these in his own right and often feels "out of it" as he waits to assume his place in

the adult world. Oftentimes in his own home he is further de-valued as a person whose problems or contributions are not worth listening to. Lack of boundaries or inconsistent expectations as identified by his parents lead to further conflict and/or confusion as to his own importance or worth. It is unrealistic to expect that a high level of self-esteem can develop when so much around the adolescent's world is contributing to his negative feelings about himself.

During this time of transition for the adolescent, it appears more consideration needs to be made for more positive enhancement of the individual's self-esteem. To feel "good" about yourself and to respect yourself as a person could well be the first precept for positive mental health.

Decision-Making

Decision-making is a vitally important process and is practiced by everyone each day of his life. Although decision theory initially was used primarily in mathematics and economics, much of it is now being explored and utilized in the behavioral sciences. As a suggested "self-science education," Weinstein proposed:

> ...by training learners to perceive more accurately their relation to themselves, others and the world, and to anticipate more accurately the phenomena of their personal experience, their power to choose their own ways of being, will be increased.[1]

Certainly many social and behavioral scientists have been trying to account for the behavior of individuals and in so doing have produced a large body of theory and experiments which deal with indi-

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[1]Gerald Weinstein, "Self-Science Education: The Trumpet," Personnel and Guidance Journal, 51:600-606, May, 1973, p. 601.

vidual decision making.

For our purposes here, decision-making will be that process by which a person selects from two or more possible choices. Daily living in our society consists of constantly choosing between alternate courses of action. Oftentimes the situation faced by the individual in his everyday life is unique in that he has not faced it before and it is not obvious what he should do. At this point decision theory can suggest a process, a way:

> ...in which information is processed by the individual is strongly influenced by expectations and attitudes he has about himself, i.e., self-concepts...and the decision to take a particular action is determined by what the individual thinks his chances of success are and how much he values the particular outcome.[1]

Lacking the necessary skills for seeking and processing information about ourselves, relatively few of us can construct clear accounting for our decisions. Skills in this process are universally needed and adolescents reflect this need. Teaching the decision-making process offers a strategy for predicting the behaviors and plans for behaviors which individuals make. Furthermore, decision-making can be viewed as a series of events leading from actual behavior of others, through the self-conceptions people make based on the behavior of others, to plans for the self which lead to voluntary behavior. This process leads the individual toward clarification of his own goals, abilities, and alternatives.

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[1] C. E. Thoresen, W. A. Mehrens, "Decision Theory and Vocational Counseling," Personnel and Guidance Journal, 46:165-172, October, 1967, p. 169.

He recognizes the control he has over his own life as he explores his freedom to act as determined by what he is willing to do and what his limitations are. When he realistically utilizes this process as he constantly makes decisions, the adolescent becomes more satisfied with the outcomes even if not as "good" as anticipated because he make the choices himself.

> In going through this process, the individual would have made statements about many facets of himself, his environment, his future self, his future environment, and the relationships within and between. The "goodness" of his decision reflects the relevance, quality, or consistency of these statements. Thus, a good decision is one wherein the decision maker (1) chooses the alternative whose expected outcomes have the highest probability coupled with the highest desirability, or (2) is internally consistent, or (3) is willing to assume personal responsibility for the decision.[1]

The decision-making paradigm suggests that the greater the knowledge the student has concerning the sequences of experiences that lead from his present situation, the more likely he will be able to direct his development toward the outcomes he desires. Such a frame of reference would require that students be helped to learn about themselves and their environment and relate this information to educational-vocational-personal decisions. Not only would better decisions result, but by participating in the decision-making process students could develop skill, independence, and responsibility for their own decision making.

This approach would be compatible with the developmental and

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[1]Josiah Dilley, "Decision-Making: A Dilemma and a Purpose for Counseling," Personnel and Guidance Journal, 45:547-551, February, 1967, p. 548.

interactional nature of adolescents and the actual practice of counselors. The paradigm provides an area of exploration in which counseling could point the way to implementing decision-making theory as a viable technique for working with students, but particularly with the unmotivated/behavioral students.

DEFINITIONS OF TERMS USED

For clarification of terms used in this study, the following definitions are supported:

Self-Esteem. This term denotes a personal judgment of worthiness that is expressed in the attitudes the individual holds toward himself.

Decision-Making. This connotes a process in which a person selects from two or more possible choices.

Values. The term indicates a notion, idea, or concept which a person regards as consistently desirable.

RATIONALE OF THE STUDY

Adolescents have little/no exposure to their own role in decision making. Behavior is one of the end-products of the decision-making process. Therefore, the adolescent experiences a need to understand his own role in deciding certain behaviors.

The model this researcher proposes is presented visually in Figure 1. The solid line triangle represents the schemata of the decision-making process. This triangle is further broken into three parts of the experimental program on values, to program in all in-

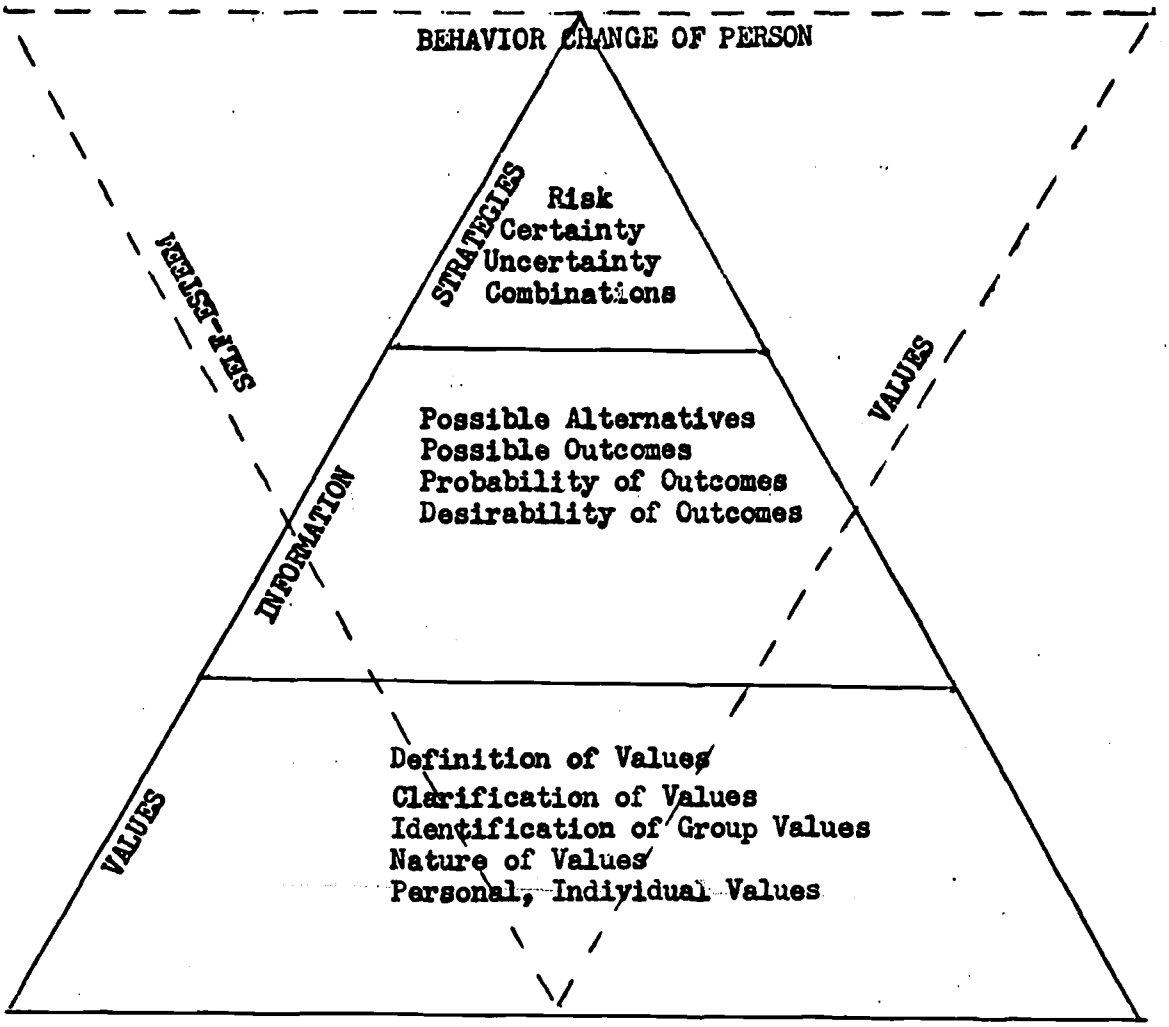

Figure 1

DECISION THEORY PARADIGM

The solid line triangle represents the decision theory paradigm as input while the dotted line triangle represents possible outcomes or changes.

formation available to the decider, and to determine strategies which he can utilize. The broken-line inverted triangle denotes possible outcomes for the decider in terms of conceivable change in self-esteem or feelings about himself, values or what he prizes, and increased options in behaving. The correlation of the change in the apex of the triangles is that the more strategies he develops the more options he has in individual behavior choices.

SIGNIFICANCE OF THE STUDY

This particular decision-theory paradigm could possibly provide counselors with an option for counseling non-conforming students; provide students with a tool for changing behavior; suggest an alternative in group counseling techniques; and provide an assessment of counseling for accountability purposes.

CHAPTER II

REVIEW OF THE LITERATURE

The impetus for research on decision making was initiated when Tyler's summary of exploration in the realm of choice concluded that there is much we do not yet know about this whole process by which the individual sets the pattern for his own development by the choices he himself makes.[1] Many researchers have explored this phenomenon from a variety of dimensions. Only that research most pertinent to this study will be reported here. These have been reviewed in categories referred to as Unmotivated Adolescents, Values, Self-Esteem, and Decision-Making.

I. LITERATURE ON UNMOTIVATED ADOLESCENTS

Studies related to group counseling of behavior problem students showed varying results, ranging in reduction in detentions and a change in attitude to improved behavior in school and better student adaptation. Some of the studies included further evaluation of unmotivated students in terms of academic improvement. Group counseling at Illinois Institute of Technology for failing freshmen students as reported by researchers was determined as successful in terms of improved grade point averages, while the non-counseled group

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[1]Leona E. Tyler, "Research Explorations in the Realm of Choice," Journal of Counseling Psychology, 8:195-201, Fall, 1961.

did not show improvement.[1] However, Lang, working with matched pairs of college freshmen described as underachievers and apathetic and nagging dissenters, had mixed findings. Using before-and-after measurement, he found that the value-clarification approach worked well with the underachievers but not with the apathetic or dissenting students.[2] An interesting study reported on college males was concerned with the main effects of the independent variables of group discussion and familiarization upon shifts in risk-taking dispositions. The results showed significant interaction which indicated group discussion produced risk-taking shifts among the unfamiliarized subjects but had no effect upon the familiarized subjects.[3]

Using group counseling, Caplan worked with Junior High School students with long records of conflict with school regulations. After ten fifty-minute sessions he reported significant improvement in self-ideal congruence and decreased poor citizenship records as

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[1]Robert M. Roth, Hans Mauksch, Ken Pliser, "The Non-Achievement Syndrome, Group Therapy, and Achievement Change," Personnel and Guidance Journal, 46:393-398, December, 1967.

[2]Melvin Lang, "An Investigation of the Relationship of Value Clarification to Underachievement and Certain Other Behavioral Characteristics of Selected College Students," Unpublished Ph.D. dissertation, New York University, 1961.

[3]James Flanders and Donald Thistlewaite, "Effects of Familiarization and Group Discussion Upon Risk-Taking," Journal of Personality and Social Psychology, 5:91-97, 1967.

reported by teachers.[1] In a later similar study Arbuckle and Boy reported statistically significant improvement as measured by teacher behavior ratings on students who were serving daily detentions after school. Further, they found the correlations between the ideal and real self were higher after counseling.[2]

Reporting on high school underachievers, Raths found his experimental students in his matched pairs did better academically than the controls.[3] However, another study involving three counselors in three different Junior High Schools working with groups of behavior problem students did not report similar findings. These counselors used the Taylor Manifest Anxiety Scale and Cattell's Q-sort on Self-Ideal-Self and reported no significant treatment effects or interactions.[4]

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[1]S. W. Caplan, "The Effect of Group Counseling on Junior High School Boys' Concept of Themselves in School," Journal of Counseling Psychology, 4:124-128, 1957.

[2]D. S. Arbuckle and A. V. Boy, "Client-Centered Therapy in Counseling Students with Behavior Problems," Journal of Counseling Psychology, 8:136-139, 1961.

[3]James Raths, "An Application of Clarifying Techniques to Academic Underachievers in High School," Unpublished Ph.D. dissertation, New York University, 1960.

[4]R. M. Laxer, Catherine Isnor, D. R. Kennedy, "Counseling Small Groups of Behavior Problem Students in Junior High School," Journal of Counseling Psychology, 5:454-457, 1967.

II. LITERATURE ON VALUES

Values evolve as changes occur in society and, indeed, few can deny there have been many changes in America. The schools have felt a great impact from this evolution of change within our value system and the traditional climate has modified accordingly. One example of this has been reported by Kaye in the Pacific High School in Palo Alto. Here students were allowed a variety of options, e.g., some study cognitive skills, other non-cognitive areas, and some do almost nothing. Kaye argued that those who do nothing would not receive an academic education even if required to; therefore, tradition and/or coercion cannot be supported as reasons for learning.[1]

Bills was one of many in the early period of assessing the relationship of values to the individual's functioning; and, in his efforts to develop the Index of Adjustment and Values, he further proposed it is the striving for maintenance and enhancement of the consistency within the value system that motivates behavior.[2]

Gordon has reported a wide range of research studies using his Survey of Interpersonal Values that he developed over a period

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[1]Michael S. Kaye, "Student Freedom and Power as Instruments," Educational Leadership, 27:462-464, 1970.

[2]R. E. Bills, F. L. Vance, and O. S. McLean, "An Index of Adjustment and Values," Journal of Consulting Psychology, 15:257-261, 1951.

of time.[1] A few of these studies are included here. One was a study performed at the Air Force Academy that concluded the Independence and Conformity scales were significant at the .01 level and .05 level respectively in predicting cadet drop-outs. Although all six scales were not overly impressive as predictors, they may be indicative as to values of the individual involved, e.g., it may support that dropping out of the Academy is associated with placing a high value on independence and a low value on conformity. A second study, on cadets in Pre-flight training, on a test-re-test correlation, reported systematic value changes occurred between the administration of the tests. The values changes of the cadets at the end of the course revealed lower scores on Conformity and Benevolence and higher on Recognition, Independence and Leadership. A third investigation, to determine relationships between parental values and achievement of gifted children, was conducted on sixth grade children. It was found that the magnitude of the correlations between scores of achievers' parents was fairly uniform. The fourth was a study of personality characteristics of volunteers for antarctic duty. It was found the Survey of Interpersonal Values scores revealed a significant difference on the Conformity scale, a difference that typically appears when military and civilian groups are compared.

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[1] Leonard V. Gordon, Research Briefs on Survey of Interpersonal Values (Chicago, Illinois: Science Research Associates, revised May, 1963).

The findings in this study with the yielding of high scores on Benevolence and low scores on Support suggested that a high degree of psychological self-sufficiency coupled with a readiness to help his fellow associates characterized the antarctic volunteer.

In working with adolescents, Stein studied changes in personal and interpersonal values by sex, grade, and occupational groups. Her findings revealed personal values appear to be relatively stable during high school years, while interpersonal values are in the process of change. The latter reflected adolescents' concern about and interest in others, especially in their peer group. Youngsters seemed to be changing and developing their own interpersonal values rather than accepting those of adults.[1]

Dr. Friesen's study on value orientations of adolescents dealt with students grouped according to their present and future orientations. His findings, while supportive of the cultural continuity theory of value orientation, suggested that forces in society, other than youth culture, continue to share in the development of value structures in today's youth.[2]

A group of studies was presented in the December 1971 issue of Journal of Personality and Social Psychology, all related to risk-

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[1]Sandra Stein, "Changes in Personal and Interpersonal Values by Sex and Occupation Groups in Grades 9 Through 12," Journal of Educational Research, 66:135-141, November, 1972.

[2]D. Friesen, "Value Orientations of Modern Youth: A Comparative Study," Adolescence, 7:265-275, Summer, 1972.

taking behavior in group functioning. Here Clark, Crockett and Archer reported a study on risk-as-value hypothesis. The results of this study concluded that persons who perceived themselves as more cautious than peers did not change toward risk, while those who saw themselves as relatively risky showed strong shifts. From these findings it appeared the first subjects did not value risk, while the latter group did. However, the cultural value of risk through the specification of probabilities was still tenable.[1] Lamm, et al., at the University of Mannheim, Germany, found from their study that risky shift was a function of group members' value of risk and need for approval; and the study provided a direct and successful test of this proposition. They presented evidence that suggested shifting toward risk in a group discussion helped subjects sustain their self-esteem. They hypothesized further that this was because they moved closer to a position they personally valued.[2] Baron, et al. concluded in their study of group consensus and cultural values as determinants of risk-taking that conformity pressures were more powerful in behavior than the desire to deviate

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[1]Russell Clark, Walter Crockett, and Richard Archer, "Risk-as-Value Hypothesis," Journal of Personality and Social Psychology, 20:425-429, December, 1971, p. 425.

[2]Helmut Lamm, Edith Schaude, and Gisela Tromsdorf, "Risky Shift a Function of Group Members Value of Risk and Need for Approval," Journal of Personality and Social Psychology, 20:430-435, December, 1971, p. 434.

in a culturally valued direction.[1] While Pruitt in his work on choice shifts in group discussions found one of the basic assumptions of value theory in action, namely, that groups shifted in the direction toward which individual members were already attracted.[2]

In a study investigating where adolescents obtained their system of values, Munns hypothesized that adolescents were much more influenced by peer group values than by parental influence as they moved away from the family sphere toward independence. His experimental results supported the hypothesis that the adolescent males tested tended to see themselves and friends holding values quite different from those of their parents.[3]

Simon's study, using ten high school teachers to teach the value-clarification process to students, indicated that the teachers were unable to use the techniques effectively and consistently. Each teacher was asked to select a student having "non-value" based behavior. From these results, he speculated it may be questionable whether or not the teachers could implement the process in the regular classroom situation for behavior students.[4]

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[1]Robert Baron, Ken Dion, Penny Baron, and Norman Miller, "Group Consensus and Cultural Values as Determinants of Risk Taking," Journal of Personality and Social Psychology, 20:446-455, December, 1971, p. 455.

[2]Dean G. Pruitt, "Choice Shifts in Group Discussion" Journal of Personality and Social Psychology, 20:339-360, December, 1971,p.345.

[3]M. Munns, "Values of Adolescents Compared with Parents and Peers," Adolescence, 7:519-524, Winter, 1972.

[4]Sidney Simon, "Value Clarification Methodology and Tests of an Hypothesis in an In-Service Program Relating to Behavioral Changes in Secondary School Students," Unpublished Ph.D. dissertation, New York University, 1958.

Raths, working on a similar value-clarification process with high school underachievers, found significant improvement in his experimental students. However, he worked in twenty-minute sessions with each of his six students for fifteen weeks. In his matched pair design, the six students in the control group who received no exposure to the process did not show the same improvement.[1]

College sophomores were divided into two comparative groups for one term, during which time Klevan used value-clarification techniques with his experimental group. His findings indicated the experimental class did develop more consistent attitudes and did express more personal purposes than the control group.[2]

III. LITERATURE ON SELF-ESTEEM

In spite of the numerous studies which have been made on the various dimensions of the self, there has been no real agreement on the definition of the term or the techniques of measurement. Brownfain's self-concept study of university males of low socio-economic background and above average academic achievement yielded him a stability index which was actually a measure of the difference between positive and negative self-ratings. His findings revealed that subjects who have the most stable self-concept are better adjusted,

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[1]James Raths, "An Application of Clarifying Techniques to Academic Underachievers in High School," Unpublished Ph.D. dissertation, New York University, 1960.

[2]Albert Klevan, "An Investigation of a Methodology for Value Clarification: Its Relationship to Consistency in Thinking, Purposefulness and Human Relations," Unpublished Ph.D. dissertation, New York University, 1957.

better liked, freer from inferiority feelings, and have a higher level of self-esteem.[1] Coopersmith designed a self-esteem index and a self behavior rating form to distinguish between subjects high and low in self-esteem and between subjects exhibiting reality-based and defensive responses. Using fifth and sixth graders as subjects, he found that a person's self-evaluation generally agrees with his behavior. Where there is a discrepancy, the high manifest self-evaluation apparently is a reaction against a low underlying self-evaluation as a result of poor performance and low status. Or if there is a low self-evaluation in spite of excellent performance and high status, then it reflected an ideal beyond reach or extremely high goals.[2]

Strong did an analytic study of several measures of self-concept using social desirability as a factor in personality evaluation in an effort to determine the relationship of social desirability to components of self-concept. His correlations were reported as generally low and seemed to indicate that the role of social desirability as his study defined it was not very great. Rather the greatest influence was in the concept of the ideal self or personal desirability.[3]

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[1]John J. Brownfain, "Stability of Self-Concept as a Dimension of Personality," Journal of Abnormal and Social Psychology, 47:597-606, 1952.

[2]Stanley Coopersmith, "A Method for Determining Types of Self-Esteem," Journal of Abnormal and Social Psychology, 59:87-94,1959.

[3]Donald Strong, "Factor Analytic Study of Several Measures of Self-Concept," Journal of Counseling Psychology, 9:65-70, 1962.

After study of the voluminous research done on aspects of self, Wylie concluded that studies of self-esteem have been more fruitful than studies of broader terms such as self-concept.[1]

Levanthal and Perloe conducted a study of subjects in the Army who were exposed to various highly persuasive encounters, both optimistic and pessimistic. Their findings revealed that people high in self-esteem tend to use avoidance mechanisms which lead them to reject threatening communications and to be receptive to optimistic messages. Conversely they found that people low in self-esteem tend to use sensitizing defenses which lead them to reject optimistic appeals and accept threatening ones.[2]

William Purkey in summarizing research done on self-concept and school achievement proposed there is a strong reciprocal relationship here. He further hypothesized that enhancing the self-concept would exert a vital influence on improving academic performance.[3]

In a Michigan study of over 2,000 elementary students, Bilby, Brookover and Erickson collected data on the parental influence on student self-concepts. Through the use of instruments measuring student variables and parent variables respectively, they arrived at a measure of the self-concept structure in terms of ability,

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[1]R.C. Wylie, The Self Concept (Lincoln, Nebraska: University of Nebraska Press, 1961).

[2]H. Levanthal and S. I. Perloe, "A Relationship Between Self-Esteem and Persuasibility," Journal of Abnormal and Social Psychology, 64:385-388, 1962.

[3]William W. Purkey, Self-Concept and School Achievement (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1970) p. 27.

value of the role and the intrinsic value of the role. The findings showed that each of three components of the self-concept structure explored was positively associated with the educational attainment plans of the students. Another finding was that both the values displayed to children by their parents and the parent reinforcement (reward or punishment) of their children following poor academic performance were significantly associated with the student conceptions of the values of the student role. Furthermore, there was no transference of a value orientation from parents to children in the absence of some means of effectively reinforcing that value orientation.[1]

Hamilton did a comparative study of five methods of assessing self-esteem, dominance, and dogmatism, and concluded that none of the methods clearly outperformed measures obtained by simple self-ratings. He concluded that it may be very possible to adequately obtain personality information without lengthy inventories. His study was very supportive of self-ratings as reliable sources of data.[2]

In a staged academic failure proposition, Boshier used university students to study the effect of failure on self-concept and maladjustment indices. His findings revealed that high and low esteem students did not differ significantly in response to this experi-

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[1]Robert W. Bilby, Wilbur Brookover, and Edsel Erickson, Characterizations of Self and Student Decision-Making," Review of Educational Research, 42:505-524, February, 1972.

[2]David Hamilton, "A Comparative Study of Five Methods of Assessing Self-Esteem, Dominance, and Dogmatism," Educational and Psychological Measurement, 31:441-452, Summer, 1971.

mental treatment on a test/re-test design.[1]

Stein reported her investigation on the relationships of self-esteem to both personal values and interpersonal values on high school students. She found only one correlation significant; the self-esteem of seniors correlated significantly with the personal value of achievement.[2]

In a study using a delinquent sub-population the data revealed that failure to meet one's needs tended to be associated with low self-esteem. The researchers defined their population (male probationers, ages 12-16) as failing to achieve according to middle class measures, short-sighted hedonism and negativism, not utilizing legitimate opportunities. An attitude scale was used in the study with four scales for measuring themselves on a continuum according to niceness, smartness, fairness, and strength of self.[3]

Another investigation explored the self-concepts of adolescent educationally sub-normal (ESN) boys. In studying one hundred ESN boys in special schools, Lewis, using the Lipsitt Self-Concept Scale, found that the boys had a level of self-regard comparable to the general population. His conclusions indicated that

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[1]R. Boshier, "Effect of Academic Failure on Self-Concept and Maladjustment Indices," Journal of Educational Research, 65:347-351, April, 1972.

[2]Sandra Stein, "The Interrelationships Among Self-Esteem, Personal Values and Interpersonal Values," Journal of Educational Research, 64:448-450, July-August, 1971, p. 450.

[3]Spencer Rathus, Larry Siegel, and M. Criminal Justice, "Delinquent Attitudes and Self-Esteem," Adolescence, 8:265-276, Summer, 1973.

the milieu of the special school provided boys with a high level of self-regard but that the segregated nature of the school denied them a realistic appraisal of normal behavior.[1]

Graf's honesty study of adolescent students indicated lower self-esteem subjects were more dishonest than neutral or high esteem subjects and concluded that altruistic reactions to guilt induction may actually represent forms of self-punishment. The research showed a consistent relationship between the manner in which a subject expected to perform and his actual performance.[2] The relationship seemed to confirm that behavior is consistent with one's opinion of oneself.

Some recently completed dissertations on various dimensions of self-esteem revealed a disparity of conclusions. One study comparing self-concepts and values of three differing groups of adolescents indicated there were really more similarities among the groups than differences.[3] In testing 221 students from three different high school populations, Bertinetti used the Tennessee Self-concept Scale and the Allport, Vernon, Linzey Study of Values Test. Bertinetti found that students in the traditional high school

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[1]Tony Lewis, "The Self-Concepts of Adolescent Educationally Subnormal Boys," Review of Educational Research, 15:16-20, Nov.,1972.

[2]Richard G. Graf, "Induced Self-Esteem as a Determinant of Beahvior," Journal of Social Psychology, 85:213-217, December, 1971.

[3]Joseph F. Bertinetti, "Comparison of Self Concepts, Values, and Occupational Orientations Among Three Groups of Adolescents," Unpublished Ph.D. dissertation, University of New Mexico, 1972.

setting held the highest social and religious values. In testing for a relationship between self-esteem and achievement motivation, using Coopersmith's Self-Esteem Index and Mehrabian's Revealed Achievement Motivation Scale, Hammes found no precise relationship.[1] A rather revealing conclusion drawn by Erickson in his study was that differences in self-esteem and/or academic self-concepts were related to differences in the labeling process. In this comparative study of ability and randomly grouped ninth graders, the class labeling and task performance prediction results indicated that ability level labels were about as available to the randomly grouped as to the ability grouped students.[2] This again confirmed previous reported studies that behavior is consistent with one's opinion of oneself.

IV. LITERATURE ON DECISION-MAKING

The Palo Alto School District undertook a six year guidance evaluation study using a decision-making paradigm. Clarke, Gelatt, and Levine in reporting this study found that the greater the knowledge the student has concerning the possible consequences of experience, the more likely he will be able to direct his development toward the outcome he desires.[3]

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[1]Richard G. Hammes, "The Relationship Between Self-Esteem and Achievement Motivation," Unpublished Ph.D. dissertation, Northern Illinois University, 1972.

[2]Glenn R. Erickson, "A Study of Self-Esteem and Academic Self-Concepts of Ability and Randomly-Grouped Ninth Graders," Unpublished Ph.D. dissertation, University Of Minnesota, 1972.

[3]Robert Clarke, H. B. Gelatt, and Louis Levine, "A Decision-Making Paradigm for Local Guidance Research," Personnel and Guidance Journal, 12:40-51, September, 1965.

Holland[1] and Tiedeman[2], as well as other researchers, have proposed and used the decision-making process in the areas of educational and vocational choices and reported successful application to this field.

Much earlier experimentation done on people making gambling decisions suggested a strong interaction between value and subjective probability and this has been reported by both Becker[3] and Edwards.[4] Feather, in an unusual experiment, demonstrated a curious relationship between probability and value. He showed that this inverse relationship is stronger under conditions which are both ego involving and achievement oriented.[5] In much of the other research on gambling behavior, the expected-value model (i.e., an individual, when choosing between alternative actions, will select the action which has the highest expected value) assumed that the subjective value of an out-

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[1]John Holland, The Psychology of Vocational Choice (Waltham, Mass.: Blaisdell Publishers, 1966).

[2]D. V. Tiedeman, "Decision and Vocational Development: A Paradigm and its Implication," Personnel and Guidance Journal, 40:15-20, 1961.

[3]G. M. Becker, "Decision-Making Objective Measures of Subjective Probability and Utility," Psychological Review, 69:136-148,1962.

[4]W. Edwards, "The Theory of Decision Making," Psychological Bulletin, 51:380-417, 1954.

[5]N. T. Feather, "Relationship of Expectation of Success to Reported Probability, Task Structure, and Achievement Related Motivation," Journal of Abnormal and Social Psychology, 66:231-238, 1963.

come was independent of the subjective probability that it will occur.[1]

Holland and Nichols designed and used an Indecision Scale in an attempt to understand the process of deciding. Their results further lent support to a decision theory but also emphasized the importance of some variables to include personality and interest.[2]

In a survey of statistical decision theory, Girshick reported much of the work on decision and game theory that had been done in the fields of mathematics and economics. Although designed as games for educational learning, the study lent support to the decision theory in that you cannot solve problems unless you can clearly define your goals and the consequences of your decisions.[3] Edwards, in an excellent and extensive bibliography on the theory of choice in economic theory, reported that many social scientists other than psychologists were trying to account for the behavior of the individual in the area of decision making and here reported several studies done by economists which dealt with consumer decision making.[4]

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[1]J. W. Atkinson, J. R. Bastian, R. W. Earl, G. H. Litwin, "The Achievement Motive, Goal Setting, and Probability Preference," Journal of Abnormal and Social Psychology, 63:27-36, 1960.

[2]John Holland and Robert Nichols, "The Development and Validation of an Indecision Scale: The Natural History of a Problem in Basic Research," Journal of Counseling Psychology, 11:27-34, 1964.

[3]M. A. Girshick, "An Elementary Survey of Statistical Decision Theory," Review of Educational Research, 24:463, 1954.

[4]Ward Edwards, "Theory of Decision Making," Psychological Bulletin, 51:380-417, 1954.

The Life Career Game as developed at the Johns Hopkins University was the result of experimentation with learning devices designed to help individuals in making life decisions. This game was field tested for four years and statistical data accumulated revealed that the performance of the experimental group using this game as it related to occupational choice was higher than the performance of the control group. They further reported that it had powerful motivational effects and that it provided a realistic approach to practice in making decisions.[1]

A further study using game theory and short term counseling was conducted by Johnson and Chatowsky at the Naval Station Brig at Norfolk. They focused on Transactional Analysis and game theory which was comprehensible to the prisoners and, the researchers reported, productive of insight. They summarized a variety of games in military forms as they appeared in the brig groups. Both the prisoners and the group leaders felt that considerable learning resulted from this approach.[2]

In working with forty-five male psychiatric patients matched with forty-five non-psychiatric participants, Vellutino found that decision-making behavior was functionally related to both self-

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[1]Sarane Boocock, "The Life Career Game," Personnel and Guidance Journal, 46:328-334, 1967.

[2]Robert L. Johnson and Anthony Chatowsky, "Game Theory and Short-Term Group Counseling," Personnel and Guidance Journal, 47:758-761, 1969.

concept and the degree of ego-control characteristic of the decision maker.[1] However, Capuzzi found no statistical evidence that counseling, using the decision-making process, effected any change in the decision-making behavior or the level of self-exploration of his students. His subjects were volunteer college students who were undecided as to their college majors.[2]

An investigation by John Evans into the use of decision-making skills resulted in his conclusions that the process of decision-making can be taught and that a directed learning process is more effective than a non-directed practice. His subjects were sixty eighth grade students divided into three groups: a guided group and a non-guided group and a no treatment group, each with an equal number of males and females. He further found that the sex of the students did not appear to be related to the results; and that although there were differences between oral and written uses of the strategy, they did not allow for statistical identification of the precise area of the differences.[3]

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[1]Frank R. Vellutino, "Decision-Making as a Function of the Self-Concept," Unpublished Ph.D. dissertation, Catholic University, 1964.

[2]David Capuzzi, "Decision-Making and Self-Explorations as Affected by Educational-Vocational Counseling," Unpublished Ph.D. dissertation, Florida State University, 1968.

[3]J. R. Evans and J. J. Cody, "Transfer of Decision-Making Skills Learned in a Counseling-Like Setting to Similar and Dissimilar Situations," Journal of Counseling Psychology, 16:427-432, 1969.

V. SUMMARY OF LITERATURE REVIEWED

On Unmotivated/Behavior Adolescents

Counseling attempts with unmotivated adolescents have produced little concensus as to success. However, some researchers have reported increased grade-points, decreased poor citizenship ratings as reported by teachers, and measured increase of self ideal-self congruence. Other than the affirmation that unmotivated adolescents are prevalent in our educational system and there is significant need to effect some change with them, there remains little in agreement from the researchers as they reported a variety of techniques and investigations. Implications from these findings suggest a great need to further explore methods and techniques which could be utilized in working more effectively with behavior-problem adolescents.

On Values

The recent longitudinal study in the Pacific High School in California related the current break with traditionally held values in education to include individual curriculum selection. Their premise was neither tradition nor coercion could be supported as reasons for learning. Much work has been done by Simons, Raths, and Klevan and their consensus was that the schools must undertake value-clarification. They hold it needs to be done but warned that teachers may not be able to implement it in the classroom. Work has been ongoing for sometime on the measurement of values and Bills and Gordon have reported the development of instruments.

The series of reports on risk-taking behavior supported the

theory that the conformity pressure is influenced by the group's values and is a function of the group members' value of risk and need for approval. Stein and Friesen further confirmed that forces in society affect youth's value structure and that the interpersonal values of adolescence is in process of change.

The studies indicated: (1) values can be influenced, (2) values are affected by society, group pressures, and the need to conform, (3) values influence individual and group behaviors, (4) values are measurable.

Research on values, as reported here, strongly suggests that schools must become involved in the students' value-clarification process. Since values play a significant role in an individual's life-time of choices, it seems imperative that individuals become exposed to the role values play in their decision-making. This present study attempts to utilize this value-clarification process as it affects the decision-making of these unmotivated students.

On Self-Esteem

Although there have been disagreements on just how one identifies self-esteem, there has been even more conflict on how it can be measured. However, some researchers, Brownfain, Coopersmith, and Strong, support the measurability concept and have reported rather extensive work with their instruments. Both the Michigan Study and Purkey concluded from their research that academic performance is influenced positively with the enhancement of the self. The study on the delinquent sub-population, Spencer, et al., concluded that the failure to meet one's needs was closely associated with low self-esteem which in turn influenced behavior choices. Levanthol and

Perloe in their investigation concluded that the subjects with low self-esteem were much more accepting of persuasive, threatening orders and made them more susceptible to less acceptable behavior. Graf's study further supported the concept of self-esteem as a determinant of behavior.

From these studies it appeared that an individual's self-esteem does affect his pattern of behaving and at least some researchers concluded that self-esteem is measurable. If, as the research indicated, an individual's self-esteem does affect his behavior, then it could be possible to change behavior by changing self-esteem. This study proposes to test this premise.

On Decision-Making

From a rather broad assortment of studies using the decision-making process, it was reported as highly successful in influencing educational and vocational choices by many, including Holland and Tiedeman. Evans and Cody reported success in working with eighth grade students and concluded decision-making as directed learning is effective. The Palo Alto School District study concluded that the greater the knowledge of experiences and consequences the more likely the student will be able to direct his development toward outcomes he desires.

From these findings it appears that the decision-making process can be taught, can be a realistic approach for youngsters with problems, can effectively motivate, can influence self-esteem, and can increase behavior probabilities. Therefore, decision-making will be utilized in this present study as a teaching tool to test its effect upon behavior-problem adolescents.

CHAPTER III

THE DESIGN OF THE STUDY

Population

Bel Air Middle School is a school of approximately 2100 students equally divided between seventh and eight grades. The community the school serves is only twenty-nine miles from Baltimore and has grown from a sleepy rural village to a booming community of predominantly middle- to lower upper-class families. Although many professional and business people have established their homes in the community, they work outside the immediate area. There still remains, however, from the earlier days of horse farms and large and small farming operations, the remnants of the landed gentry, farmers, transient hired hands, and tenant farmers. So the community is a microcosm of society.

As the school population has been increasing rapidly, the administration and faculty have been striving to meet the growing needs of their students. The sheer size of the student body contributes to the increasing problems of young adolescents. The mushrooming of the community and the burgeoning of the school, in final analysis, presents an economic and logistics problem that has no immediate remedy in sight. Therefore, the school administration and faculty have implemented many current educational concepts to help resolve some of the school problems due to size and numbers.

Some of the educational concepts introduced into the school have included the team approach, individualized instruction, mini-courses, peer tutoring, team teaching, remediation groups, resource centers, and independent study.

Based upon school records kept since the Middle School opened four years ago, the administration found that each year approximately forty students, mostly male, were identified as behavior problem students. These students were being"thrown out"of their classes by teachers for a multiplicity of disruptive behaviors. Usually, depending upon the severity of the behavior and the number of offenses, suspension followed. The faculty-council felt that out-of-school suspensions were not productive or effective, so in-school suspensions were initiated. This present research was originated as one attempt to find a more effective method of handling behavioral students and keeping them in the mainstream of education.

Therefore, the students in this study really "selected" themselves, in a sense, since they were due for suspension through repeatedly being "thrown out" of class. Following the initial removal from class, the administrator involved referred the student to a counselor. From this group of students, which numbered forty-two, small groups were formed for this study.

Of the forty-two students thus identified, one student was removed from his home and placed in protective custody, one student moved out of the county, and a third student was moved into another adoptive home in a different school area. Of the thirty-nine remaining students in the study, all were male and two were black.

Background data on these students are included in Table 1.

Program

The students were divided into four groups of approximately ten students each,of which two groups were seventh graders and two groups were eighth graders. The groups met with the same counselor one hour each week for fifteen weeks during which a decision-making paradigm was followed. The College Entrance Examination Board (CEEB) program "Deciding," which was designed for use with Junior High and High School age students, was adapted for use with the groups. The program emphasized practice in decision-making concepts and skills. By using these techniques, the students were provided the opportunity to try out decision-making skills on other people's problems before applying the process to their own lives.

The "Deciding" program was an outgrowth of a five-year plan for guidance services endorsed by the College Board. It was field tested in 1971 on 1200 seventh, eighth, and ninth grade students. The program was made available in 1972 for use in schools.[1] During that year nearly 70,000 students were introduced to this decision-making program and the reports as to its effectiveness were consistently positive. It was concluded from the information avail-

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[1]Gordon Miller and H. B. Gelatt, "Deciding: The Decision-Making Program," College Board Review, 82:1-16, Winter, 1971-71.

TABLE 1

STUDENT BACKGROUND

Student Age Range:
For 7th graders = 11 years 11 months to 13 years 11 months
For 8th graders = 13 years 0 months to 15 years 7 months

Retention Record:
15 students had been retained sometime during their school lives
2 of the 7th graders were presently repeating the grade
3 of the 8th graders were presently repeating the grade
19 students had never repeated a grade

Parent Information:
3 students lived in fatherless homes
2 students lived in motherless homes
1 student was with adoptive parents
1 student had a stepfather in the home
1 student had a stepmother in the home
31 students had both parents in the home

Summary of Fathers' Occupations:
3 fathers were with the police
3 fathers were mathematicians
3 fathers worked at Bethlehem Steel
3 fathers were in the military
2 fathers worked for the telephone company
2 fathers were in real estate
2 fathers worked at Black and Decker
2 fathers were TV writers
2 fathers worked with Western Electric
2 fathers worked with Firestone
Each of the following occupations had 1 father represented: farmer, Board of Education, lay ministry, chemist, car salesman, mailman, printer, Westinghouse supervisor, artist, meat cutter, Harford County Roads, heavy equipment operator
3 students had no father in the home

Thrown out of classes for the following offenses:
constantly distracting others, cutting class, persistent gum chewing/eacting in class, fighting with others, clowning around, smart mouth, vulgar language, bringing pornographic material to school, disturbing class, drug use, talking constantly, never prepared for class, threatening others, gambling, refusal to do his work, smoking, stealing

able thus far that "Deciding" was an effective tool to help individuals learn to make well informed decisions.[1]

The program covered three conditions or elements of decision-making: values, information, and strategies. These three conditions related to the student in terms of how he could use alternatives, what he was willing to do, and how he was limited by his environment. The student was helped to recognize that he can have greater control over his own life when he can reduce the amount of uncertainty in his choices and limit the degree to which chance or other people can determine the future.

Values were presented as the integrating framework of the complete decision-making process. The students were helped to recognize that values determine what is important and satisfying to the individual and thus help the person to set his own objectives. The investigation into values further included such topics as: nature of values, definition of values, recognition of values of others as well as one's own, and, finally, converting values into objectives for use in making decisions.

Learning to find information about each alternative of a decision and evaluating that information are essential skills in the process and were a second part of the program. By learning to use a

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[1]Gordon Miller, "Students Evaluate Deciding," College Board Review, 86:5-8, Winter, 1972-73.

variety of information resources, an individual's choices are increased and new alternatives are found. Viewing goals and data objectively was an essential part of the information gathering sessions. Additionally, possible alternatives, possible outcomes, and probabilities were covered in this part of the decision-making paradigm.

Integrating the two previous elements into a decision requires the use of a strategy, and this element became the final phase of the program. Most decisions involve some degree of uncertainty and the students were exposed to determining and assessing risk-taking behavior. Accordingly, strategies were divided into four classifications: risk, certainty, uncertainty, and combinations of these. Choosing a strategy represented a plan for action and was the final step in the decision making process. Learning that the decision maker had to accept the responsibility for the results of his decision was a summation of the program. When a person exercises his power, his control, his freedom, then he must be responsible for the outcomes.

Table 2 represents in graphic form a concise summary of the fifteen week program as it was adapted for each group of students. The pages enumerated in the table will give the reader the details of each lesson used if he refers to the CEEB workbook "Deciding."[1]

Instruments

To assess the effect of the decision-theory paradigm this

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[1]H. B. Gelatt, Barbara Varenhorst, and Richard Carey, Deciding (Princeton, New Jersey: College Entrance Examination Board, 1972).

TABLE 2

SUMMARY OF THE PROGRAM

Session 1	Introduction to the "Deciding" Program Pre-tests administered--SEI, SIV, BRF
Session 2	Discussion of the story of Milo. Deciding, p. 5 & 6
Session 3	Discussion of the story of Mike. Deciding, p. 7 & 8
Session 4	"Values for Teens," Side 1 of Guidance Associates film strip in the "Adolescent Experience" series
Session 5	"Values for Teens," Side 2 of Guidance Associates film strip. Discussion
Session 6	What each student values. Deciding, p. 12
Session 7	Headlines from week's newspapers and news magazines to look at America's values. See p. 15, Deciding
Session 8	Unfinished stories for students to make decisions for the character in the story presented
Session 9	Seeking information, p. 27 & 29, Deciding
Session 10	Unfinished stories for students to select alternatives and decide those that are acceptable and unacceptable
Session 11	Decision-making strategies. Deciding, p. 41
Session 12	Discussion of grades as report cards came out this week. Students discussed choices they had open to them and the consequences of each alternative as they planned strategies for the next grading period
Session 13	Risk-taking. Deciding, p. 38 & 40. Stories were presented for students to decide strategies
Session 14	Strategies and Probabilities. Deciding, p. 43 & 44
Session 15	Post-tests administered--SEI, SIV, BRF

study included the pre-post test method using the three tests, Survey of Interpersonal Values, Self-Esteem Index , and the Behavior Rating Form. The subjects were administered these tests at the initiation of the "Deciding" program and again at the conclusion of the fifteen week group sessions. These tests were selected to measure values, self-esteem, and behavior as rated by teacher and by self.

Theoretically, the value scale would identify and measure value changes which occured in the process. The self-esteem measure would reflect any change of a student's own feelings about himself in this fifteen week program. The use of both teacher and self ratings of the same behavior scale would measure directional change.

The Survey of Interpersonal Values (SIV) was developed by Gordon[1] to measure "certain critical values involving the individual's relationship to other people or their relationship to him."[2] The instrument consists of thirty triads. For each triad the student must select the one statement representing that which is most important to him and one statement least important to him. A high score indicates that the student is oriented toward that particular value. The interpersonal values measured by Gordon include: support, conformity, recognition, independence, benevolence, and leadership. Gordon defined these scales as follows:

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[1]Leonard V. Gordon, Survey of Interpersonal Values Manual (Chicago, Ill,: Science Research Associates, Inc., 1960).

[2]Ibid., p. 3.

S--Support: Being treated with understanding, receiving encouragement from other people, being treated with kindness and consideration.

C--Conformity: Doing what is socially correct, following regulations closely, doing what is accepted and proper, being a conformist.

R--Recognition: Being looked up to and admired, being considered important, attracting favorable notice, achieving recognition.

I--Independence: Having the right to do whatever one wants to do, being free to make one's own decisions, being able to do things in one's own way.

B--Benevolence: Doing things for other people, sharing with others, helping the unfortunate, being generous.

L--Leadership: Being in charge of other people, having authority over others, being in a position of leadership or power.[1]

Test-retest reliabilities for the SIV have been determined at .88 for a sample of 79 college students with ten days between administrations. Reliabilities were also estimated by the Kuder-Richardson formula on data for a sample of 186 college students and yielded .83.[2]

The Self-Esteem Index (SEI) developed by Coopersmith was chosen as the instrument to measure self-esteem. His definition of self-esteem as "being a personal judgment of worthiness that is expressed in the attitudes the individual holds toward himself" was used as the basic frame of reference.[3] The Coopersmith SEI is a

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[1] Ibid., p. 3.

[2] Ibid., p. 5.

[3] Stanley Coopersmith, The Antecedents of Self-Esteem (San Francisco, Cal.: Freeman and Company, 1967), p. 27.

pencil and paper self-report measure that has been used frequently with late elementary through secondary grades and has received a very favorable review from Robert Sears.[1] A high score indicates high self-esteem while a low score indicates low self-esteem. Coopersmith reported a test-retest reliability of .88 after five weeks with a sample of 30 children and of .70 after three years with a sample of 56 children.[2]

According to Coopersmith there are two major dimensions of self-esteem, the subjective and the behavioral. Coopersmith's Self-Esteem Index taps the subjective measure and his self-esteem Behavioral Rating Form (BRF) measures the behavioral. Items included in his BRF refer to such behaviors as the student's reactions to failure, his self-confidence in a new situation, his need for reassurance, etc. Pearson product-moment correlation has been computed as .73. The test-retest reliability has been reported as .96.[3]

The BRF was rated by each boy's core teacher, who had the student for the longest block of time during the school day. In addition each boy rated himself on the BRF, as a means of providing correlations between self and other measure of reality-based and/or defensive responses.

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[1]Robert R. Sears, "A Treatment of Worth," Contemporary Psychology, 14:146-147, March, 1969.

[2]Stanley Coopersmith, The Antecedents of Self-Esteem (San Francisco, Cal.: Freeman and Company, 1967), p. 101.

[3]Stanley Coopersmith, "A Method for Determining Types of Self-Esteem," Journal of Abnormal and Social Psychology, 59:87-94, February, 1959.

Hypotheses

The purpose of this study was to investigate a paradigm dealing with the decision-making function and to explore the effect this paradigm had on behavior-problem adolescents. In attempting to achieve this stated purpose, certain hypotheses were posited.

The adolescent can effect change in his behavior when he better understands his decision-making process. The student finds it possible to take responsibility for his choices when he recognizes he is the one who makes the decision and is, therefore, in control. Adolescents can learn to modify their actions through knowledge and use of the decision-making process. As a consequence, the first hypothesis of this research is:

H_1 = Classroom behavior of the problem student will be modified as he uses the decision-making process and seeks alternate outcomes.

The values a person holds are criteria for choices and serve as determinants of behavior. Learning that the values one holds can influence directly what an individual considers important and necessary is the beginning of recognition of the force which values exert upon the individual. By constantly attending to the values behind each choice, students can be helped to "see" their own value system, to understand how it is developed, and to take an active role in its development. Therefore, the second hypothesis of this research becomes:

H_2 = Change in the value system of the adolescent will be reflected in changed positive behavior as a result of utilization of the decision-theory paradigm.

Although defensive and distorting factors may be present, the subjective evaluation of self-esteem is, in most cases, in substantial agreement with its behavioral expression. Those persons whose feelings of self-esteem are realistic and positive tend to express this assurance in their behavior; while those who have unrealistic and negative feelings of self-esteem, generally tend to express this by attention-seeking and aggressive behaviors. Those feelings one holds about "how good I am/how bad I am," "how important/how unimportant I am," etc., are reflected in "good" and "bad" behavior as exhibited by the adolescent. As a function of the forces of self-esteem upon the behavior of the adolescent, the third hypothesis is:

H_3 = The self-esteem of the behavior problem student will increase as a result of implementing the decision-making paradigm.

Use of the Data

Data analysis included comparisons of the results of pre-tests with post-tests and included both qualitative and quantitative treatment of the data. Three approaches were used in assessing the data: (1) face validity, (2) computing means, standard deviations, variance, and t statistics, (3) and the sign test.

In attempting to interpret the data in terms of the purpose of this study, assumptions needed to made. These assumptions form the statistical hypotheses to be tested. This study tested the following null hypotheses:

H_o1 = No change will occur in value systems of the students as measured by an interpersonal value scale.

H_o2 = No change will occur in the students' feelings about themselves as reflected in a self-esteem index.

H_o3 = No significant change in the behavior of students as measured by a self-rating scale will be evidenced.

H_o4 = No change in the behavior of students in the classroom will occur as measured by teacher ratings.

In testing a given hypothesis, the maximum probability with which we would be willing to risk rejecting a hypothesis when it should be accepted is the level of significance of the test. In practice, a level of significance of .05 or .01 is conventional in much of educational and psychological research.

Further statistical inference was made by assuming an unknown distribution for the test results and using the sign test.[1] The sign test is a test statistic which compares distributions without specifying their form. The null hypothesis, H_o, to be postulated is that each difference, i.e., pre-test minus post-test, has a probability distribution with a median 0. The null hypothesis will be accepted if each difference is symmetrically distributed about a mean of zero. The null hypothesis will be rejected when the number of positive and negative signs differ from equal.

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[1] W. Allen Wallis and Harry Roberts, Statistics: A New Approach (Glencoe, Illinois: The Free Press, 1963) p. 598.

Limitations

Research is a process of inquiry which meets two conditions, careful control and proper sampling. Control, as indicative of internal validity, can be defined as that condition which prevents the operation of non-relevant confounding factors. In educational/social science research this validity is almost always in question as there are so many complicating variables. In this investigation, the control was provided by one counselor using the identical program and techniques in the school setting with the total sample. It must be assumed, however, that confounding variables remained.

Proper sampling, as external validity, is the condition which permits the extension of the findings of the inquiry. For this investigation the sample was obtained through purposive selection; that is, a stated criterion was used. This criterion was expulsion from class enough times to warrant suspension. Every student who met this criterion was included in the sample. No doubt, a minor source of bias in this criterion was the teachers' toleration level.

Although the research purists would term an investigation[1] as a least adequate form of inquiry, it is prevalent in the educational field.

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[1]This writer refers here to the four levels of research inquiry: (1) investigation, (2) survey, (3) study, and (4) experiment. This is supported by Jack Culbertson and Stephen Hencley in Educational Research: New Perspectives (Danville, Illinois: Interstate Printers, 1963), pp. 240-244.

CHAPTER IV

ANALYSIS OF THE DATA

Of the thirty-nine students included in this investigation only one did not complete the program. The student with identification number two moved out of the county with his family three weeks before the study was concluded. All the students (N_1=39) were pre-tested on the Survey of Interpersonal Values, the Self-Esteem Index, Behavior Rating Form (Self-rated and Teacher-rated). After a fifteen week decision-making program, the students (N_2=38) were tested on the same instruments. The analysis of the data from each test is presented here. The six scales of the Survey of Interpersonal Values are treated as separate tests. Data were analyzed on the Self-Esteem Index and also on the Behavior Rating Form as rated by both student and teacher.

SURVEY OF INTERPERSONAL VALUES (SIV)

The results of each test were analyzed to determine if the responses after the decision-making program differed statistically from the responses prior to the fifteen week program. The statistical outcomes are included under each test section. Additional quantifying information can be found in the appendix on all tests included in this study. An analysis of variance, Components of

Variance model[1], was used to ascertain whether or not the treatment affected each of the four groups, two of seventh graders and two of eighth graders, the same. There was no difference. This information is also included in the appendix.

S-Support

The results of the raw data on the Support Scale of the SIV are presented schematically in Figure 2 which represents each individual's pre- and post- score on this test. The range of the scores on the pre-test was 23-3 while the scores on the post-test ranged from 30-6. Figure 3 presents the group scores in bimodal form for both pre-and post-scores and are graphic representations of frequency distributions.

Support Scale scores showed a $\bar{x}_1$ of 14.66 and a S_1 of 4.72. After the fifteen weeks of instruction, the test scores showed a $\bar{x}_2$ of 15.81 and an S_2 of 4.84. In the test for any significance of the difference between the two means, the following formula was used:

$$\hat{\sigma}_d = \sqrt{\frac{S_1^2}{N_1} + \frac{S_2^2}{N_2}}$$

$$= \sqrt{\frac{(4.72)^2}{39} + \frac{(4.84)^2}{38}} = 1.089$$

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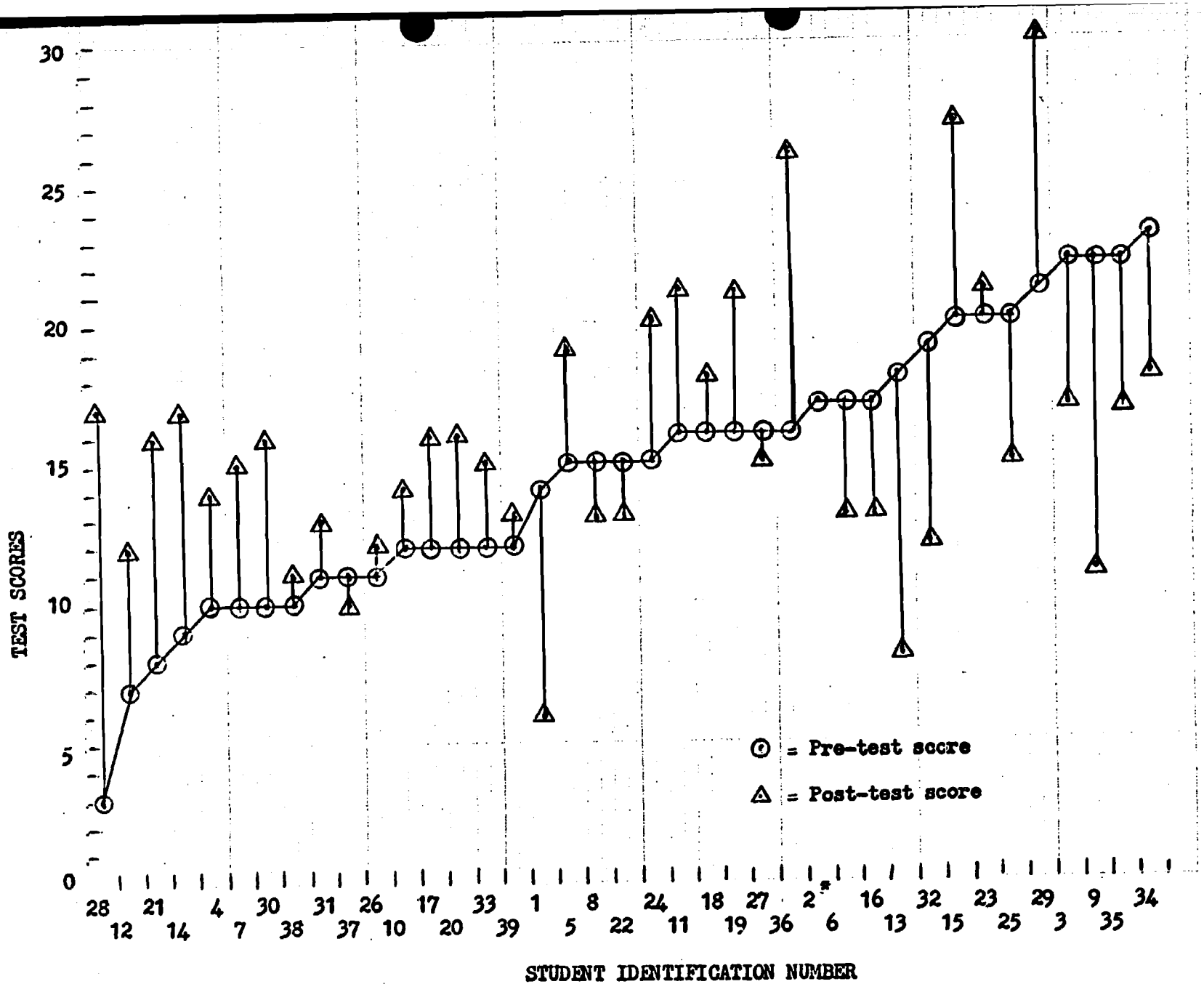
[1]Johnson and Leone, Statistics and Experimental Design, Vol. II (New York: Wiley and Sons, 1964), p. 41.



*Student dropped out

Figure 2

STUDENT SCORES
SUPPORT SCALE—SIV

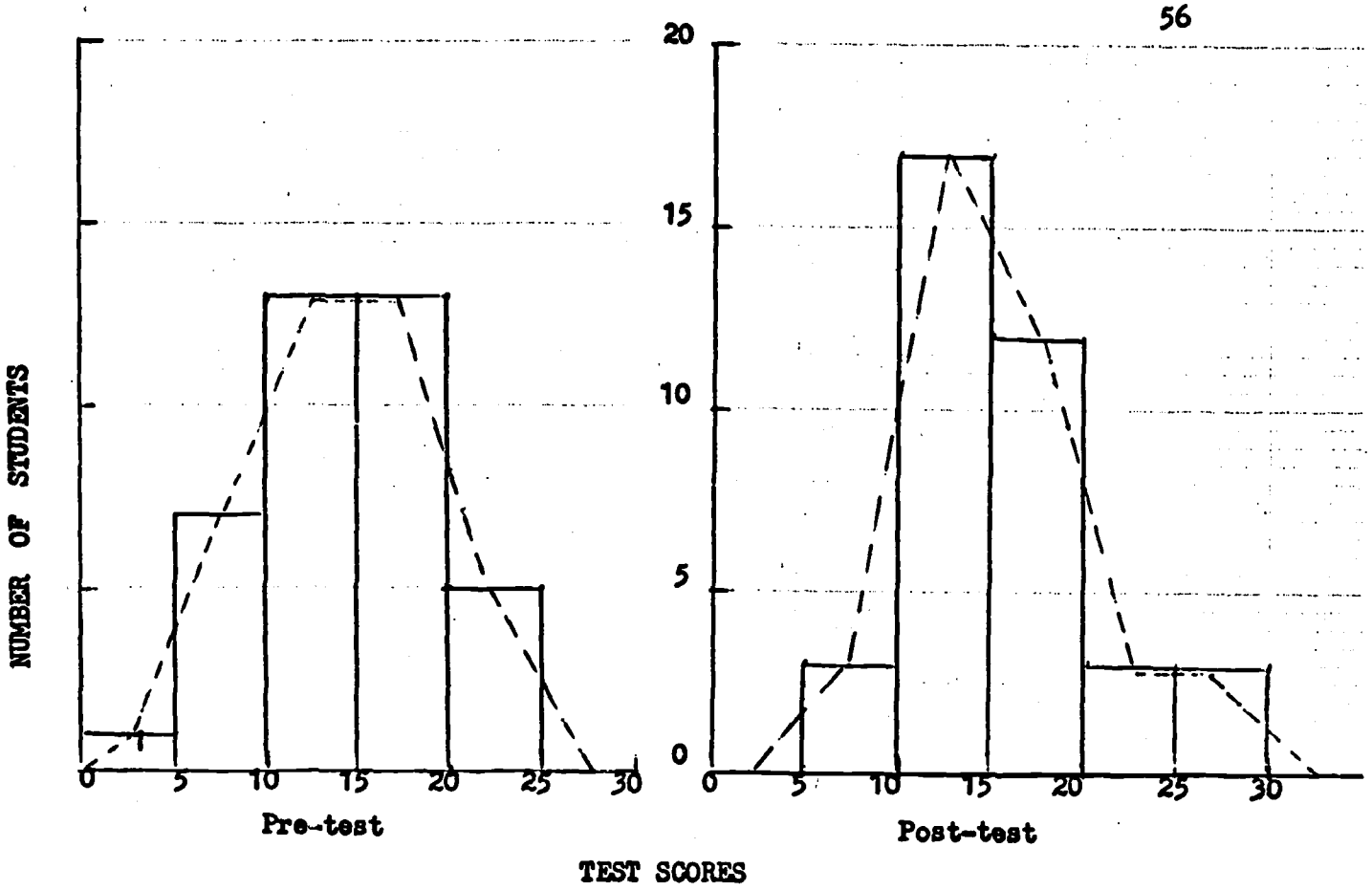


Figure 3

HISTOGRAM & FREQUENCY POLYGON
SUPPORT SCALE--SIV

Since the standard deviations of the two populations are not known, the standard deviation of the sample is used as an approximation of the standard deviation of the population. Using this approximation, the estimated standard of error of the difference between the sample means is 1.089.

To evaluate the validity of a null hypothesis ($H_o: \mu_1 = \mu_2$, population means are equal) in light of the two samples, $\bar{x}_1 = 14.66$ and $\bar{x}_2 = 15.81$, we can calculate the Z value. With an observed difference, $d = 1.15$, we can pursue the following formula:

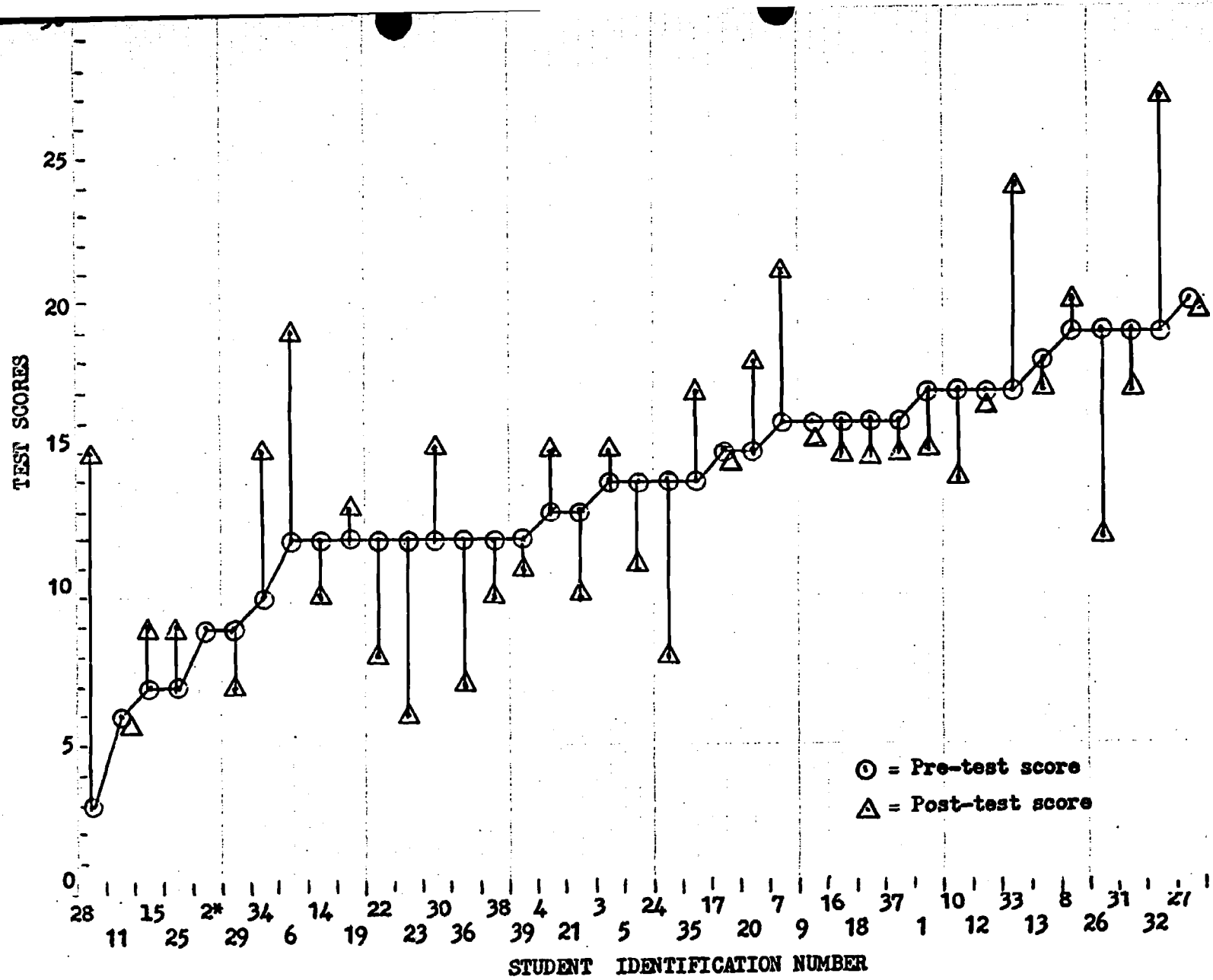
$$Z = \frac{d - E(d)}{\sigma_d}$$

$$Z = \frac{1.15 - 0}{1.089} = 1.056$$

The Z value for .05 level of significance is 1.96 and since our Z value for the Support Scale is 1.056 and less than 1.96, we accept the null hypothesis. Statistically this suggests that the difference in means is probably due to chance factors rather than to real differences and, therefore, there is no change in the students' value systems as measured by the Support Scale of the SIV

C-Conformity

Raw data on the Conformity Scale of the SIV are graphically depicted in Figure 4. This presents each student's pre- and post-test scores. The range of scores on the pre-test was 20-3 and on the post-test 27-6. Figure 5 presents the group score information and, as previously indicated, additional data are included in the appendix. The sample yielded a $\bar{x}_1$ of 13.66 and an S_1 of 3.94.



*Student dropped out

Figure 4

STUDENT SCORES
CONFORMITY SCALE—SIV

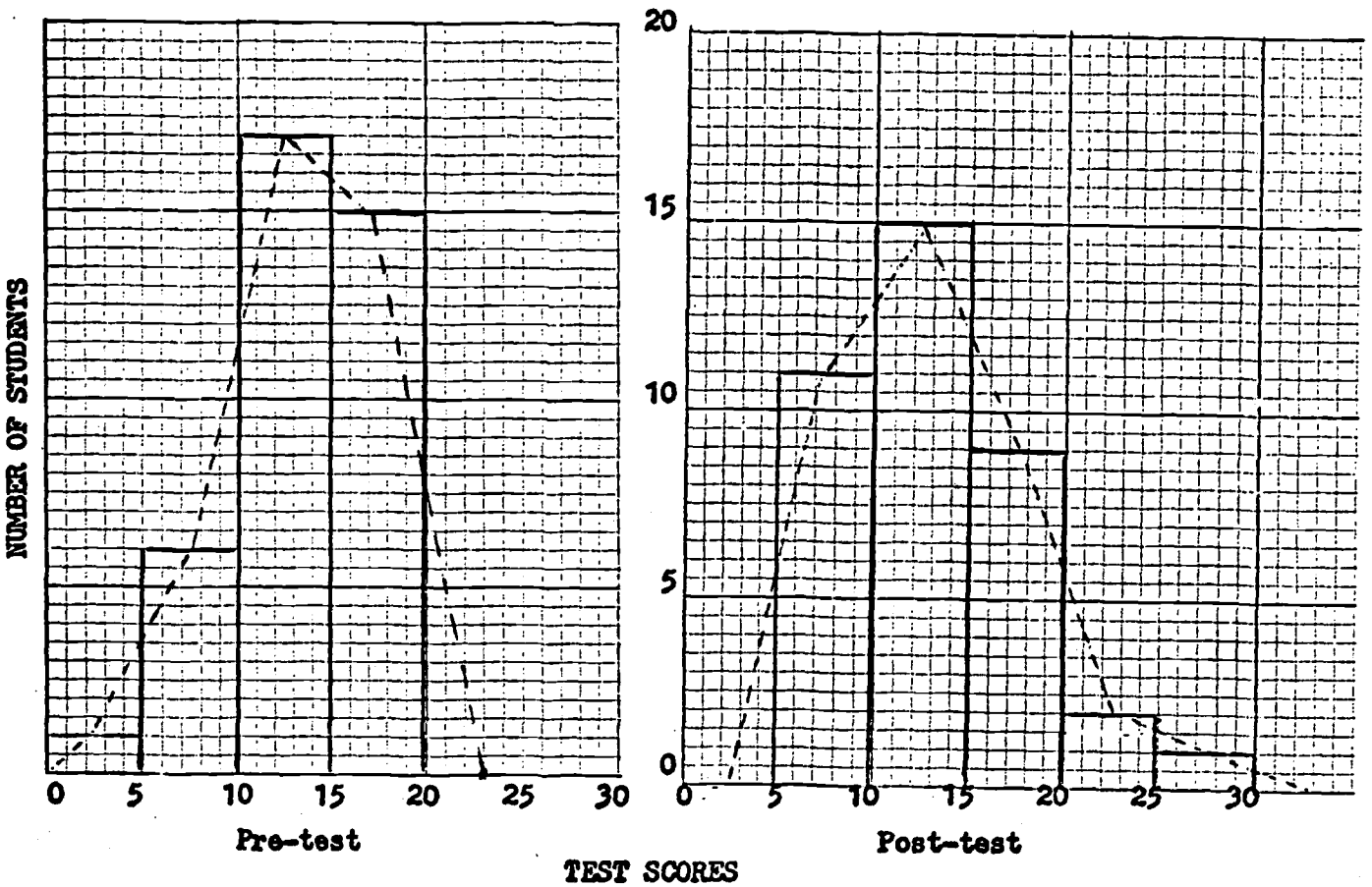


Figure 5

HISTOGRAM & FREQUENCY POLYGON
CONFORMITY SCALE—SIV

Following the instruction, the same sample demonstrated a $\bar{x}_2$ of 14.05 and a S_2 of 4.93. In the test for any significance of the difference between the two means and using the same formulas as presented in the previous Scale, there was no significant difference indicated.

R-Recognition

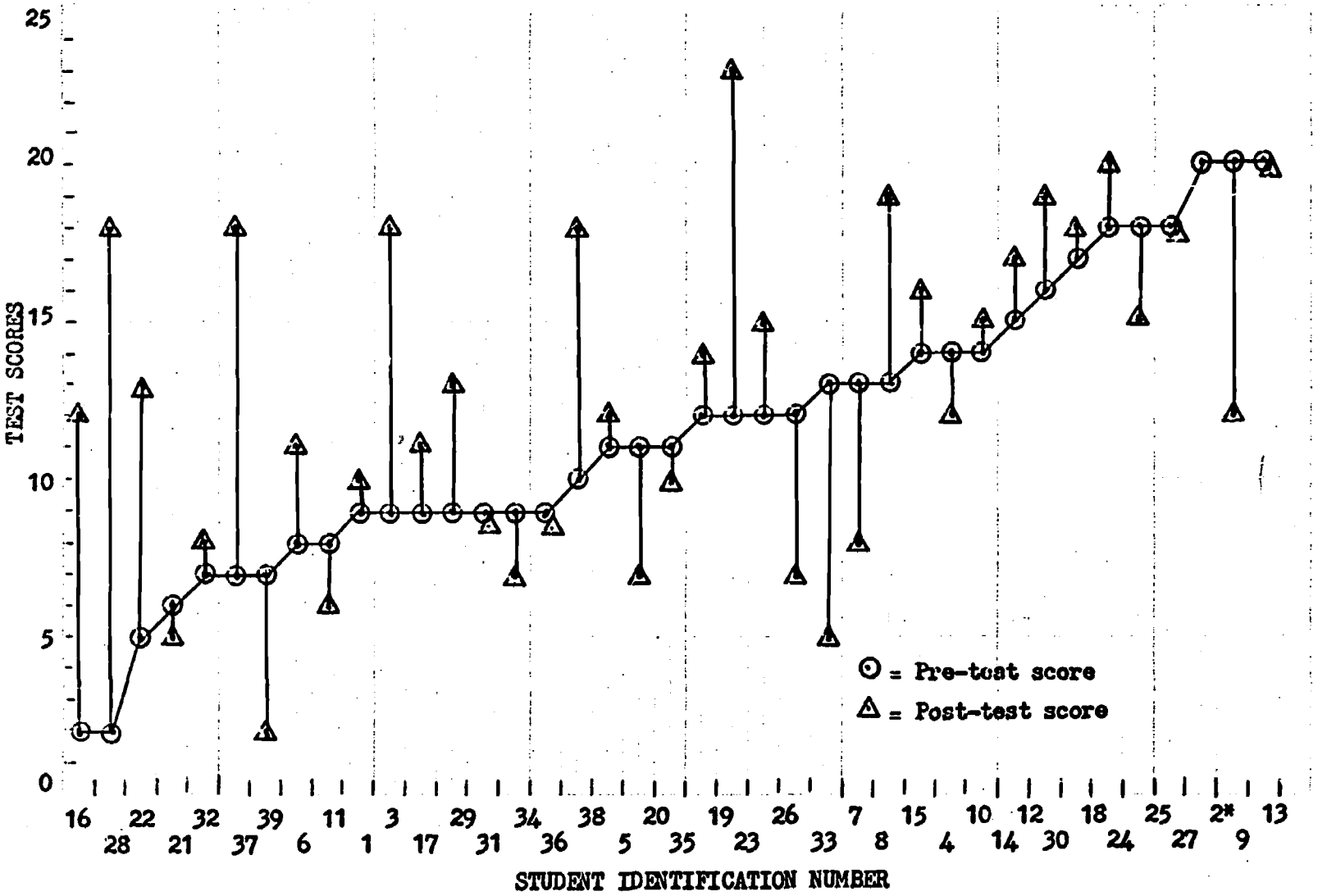
Figure 6 indicates the individual student's pre- and post-scores for the Recognition Scale of the SIV. The range of the data points for the pre-test was 20-2 with the spread of the post-test 23-2. Group score information is presented in Figure 7. The pre-test $\bar{x}_1$ was 11.51 and the S_1 was 4.63; the post-test yielded a $\bar{x}_2$ of 12.89 and a S_2 of 5.13.

I-Independence

The individual pre-test and post-test scores for the Independence Scale are indicated in Figure 8. The range of the pre-test scores was 29-5 and the post-test range was 31-7. Group score information is indicated in Figure 9. The pre- and post- means and standard deviations for this scale were $\bar{x}_1 = 16.66$, $\bar{x}_2 = 17.21$ and $S_1 = 5.34$, $S_2 = 6.26$.

B-Benevolence

The Benevolence Scale of the SIV yielded individual scores presented in Figure 10. The range of the pre-test was 28-1 and the



*Student dropped out

Figure 6

STUDENT SCORES
RECOGNITION SCALE—SIV

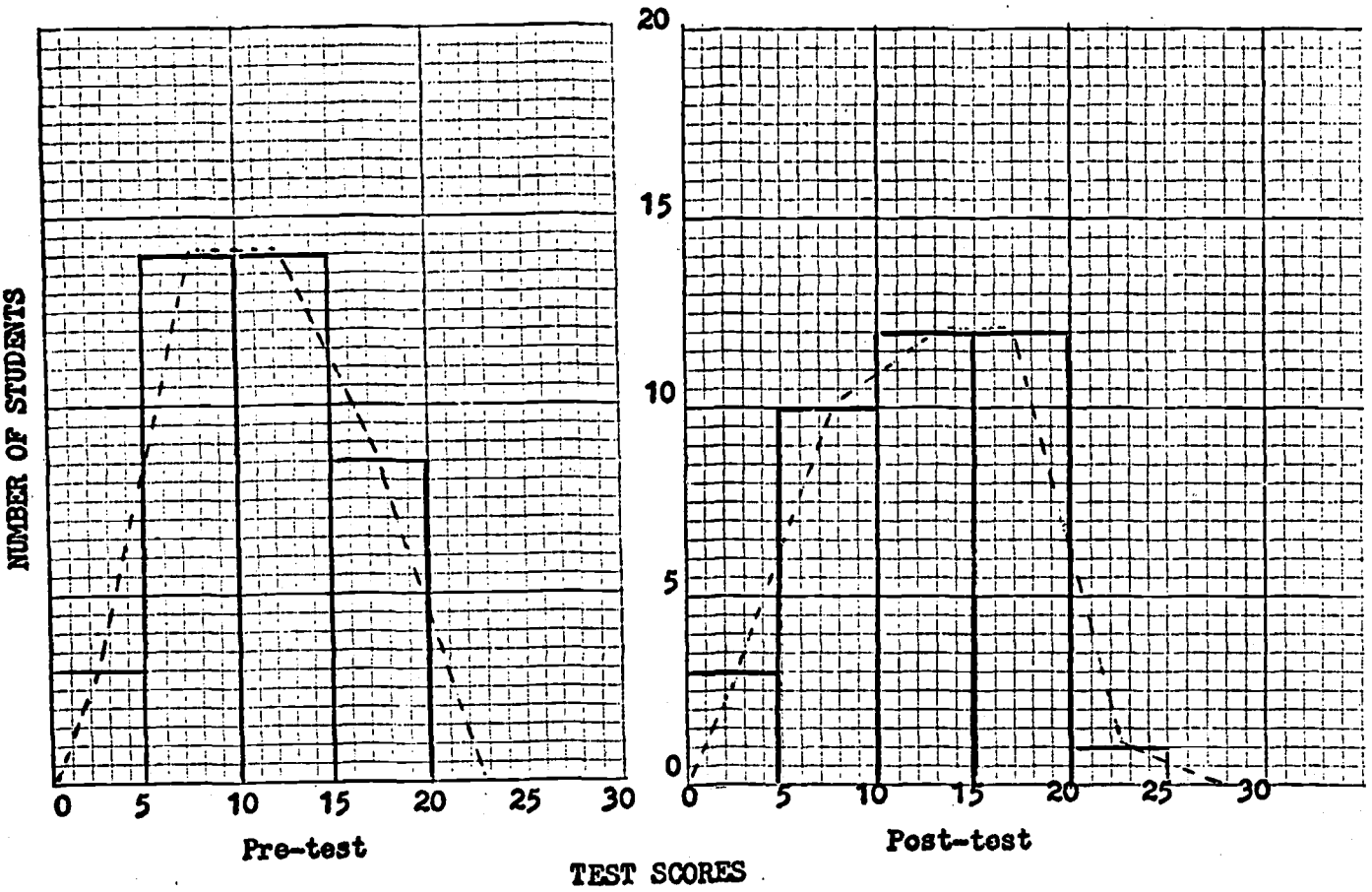


Figure 7

HISTOGRAM & FREQUENCY POLYGON
RECOGNITION SCALE—SIV

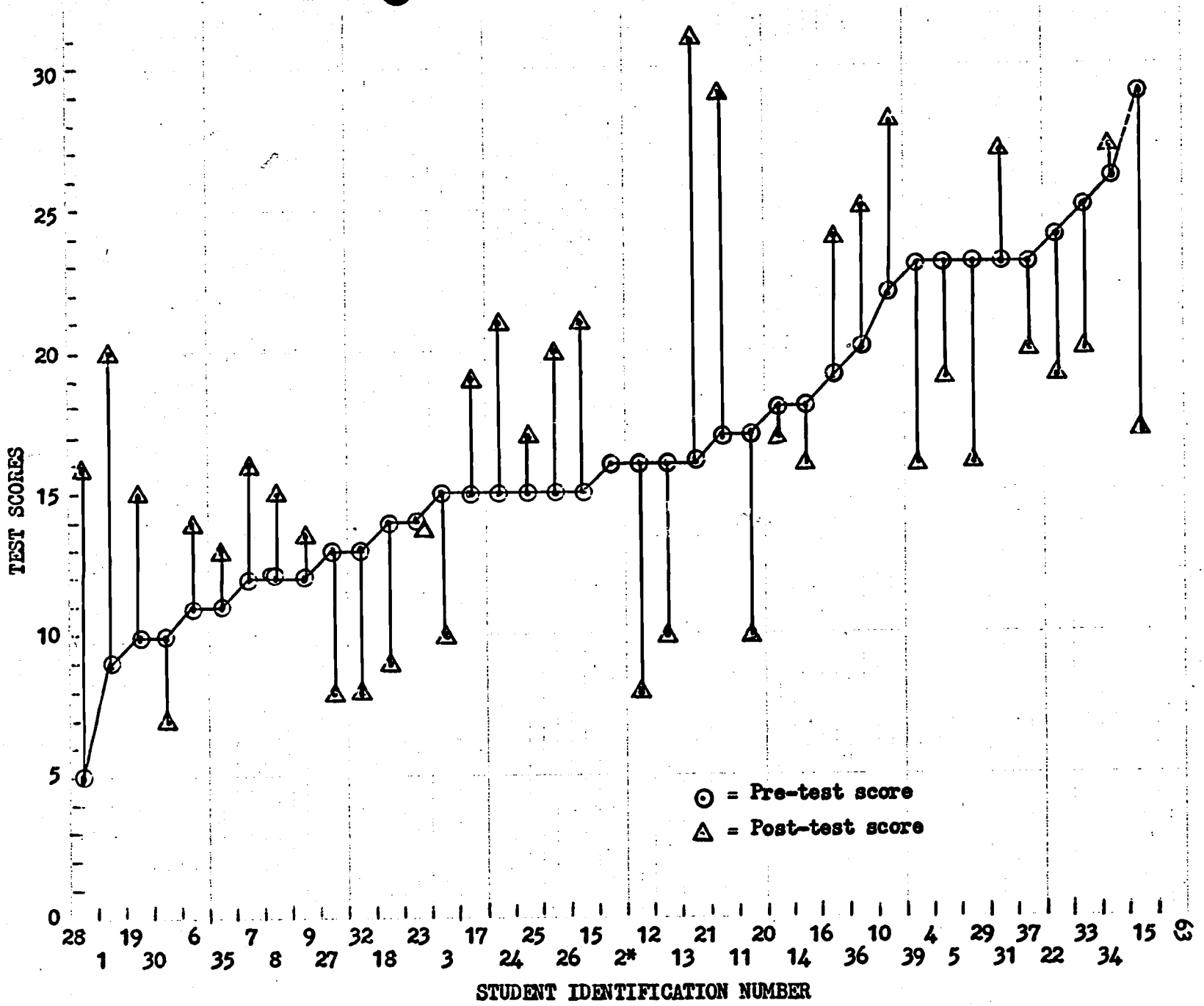


Figure 8

*Student dropped out

STUDENT SCORES
INDEPENDENCE SCALE--SIV

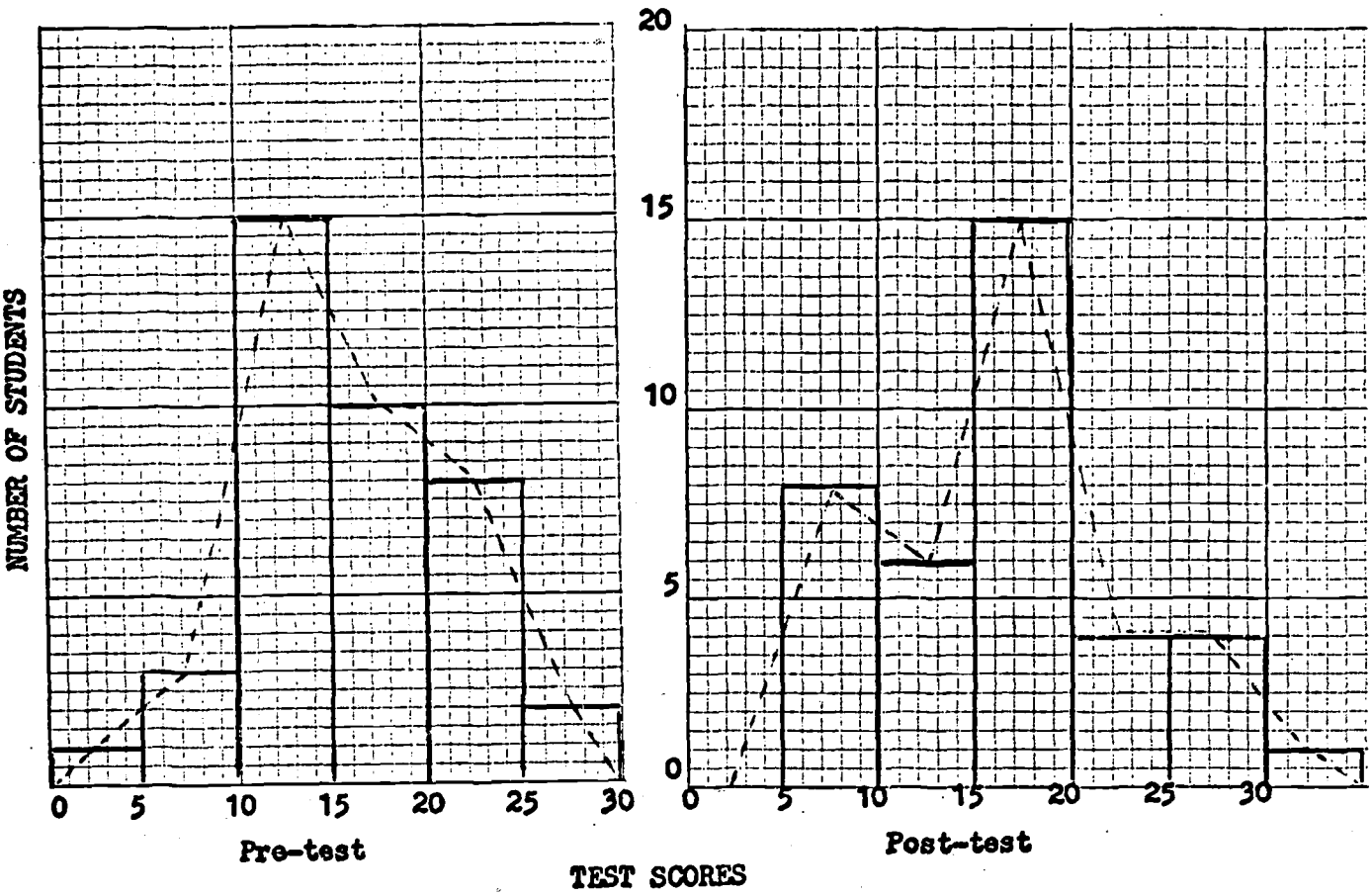
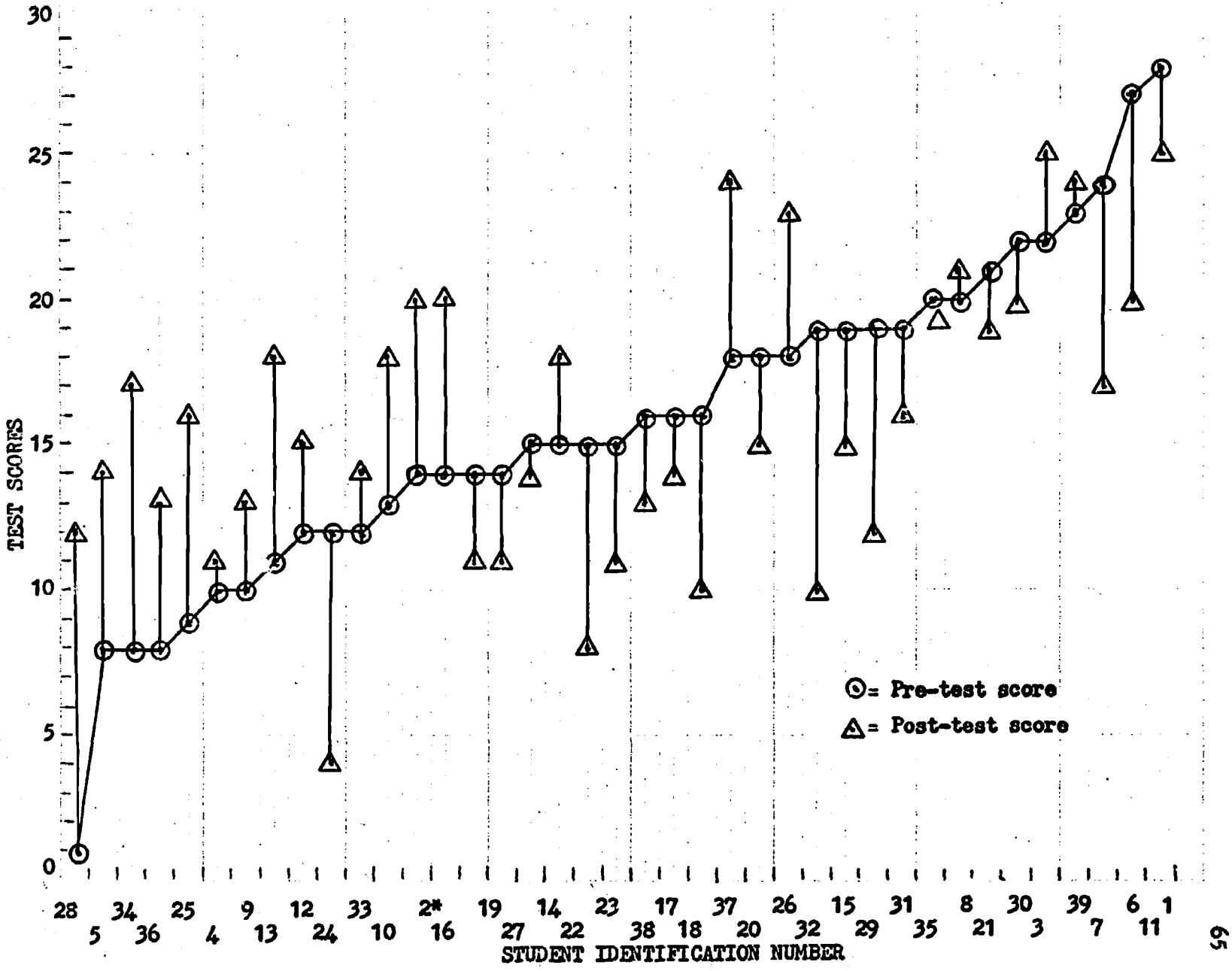


Figure 9

HISTOGRAM & FREQUENCY POLYGON
INDEPENDENCE SCALE--SIV



*Student dropped out

Figure 10

STUDENT SCORES
BENEVOLENCE SCALE—SIV

post-test spread was 25-4. Figure 11 graphically depicts the group scores of this test. The means and standard deviations as computed for the Benevolence Scale were $\bar{x}_1 = 15.76$, $\bar{x}_2 = 15.81$ and $S_1 = 5.6$, $S_2 = 5.6$.

L-Leadership

Figure 12 presents the individual scores on the Leadership Scale. The ranges of the pre- and post- scores were 29-7 and 21-6, respectively. The group scores for this test are pictured bimodally in Figure 13. The pre-test mean and standard deviation were $\bar{x}_1=13.84$ and $S_1=4.59$; and the post-test yielded $\bar{x}_2=13.15$ and $S_2=3.58$.

In summary, the analyses showed little or no effect on the students values, as measured by the SIV, due to the decision-making program. Therefore, H_o1 is accepted: no change will occur in the value systems of the students as measured by an interpersonal value scale.

SELF-ESTEEM INDEX (SEI)

The graphic representations of individual and group scores obtained from the pre- and post- tests of the SEI are presented in Figure 14 and Figure 15 respectively. These are similar to the presentations of the six scales of the SIV as reported in the previous data section on the SIV. In the SEI test the range for the pre-scores was 46-8 and for the post scores 48-10. The means and standard deviations were computed as $\bar{x}_1=28.41$, $\bar{x}_2=28.02$ and the $S_1=9.76$, $S_2=9.76$.

The data revealed no significant change of the students' self-esteem, as measured by the SEI, as a result of the decision-making paradigm. Therefore, H_o2 is accepted; no change will occur

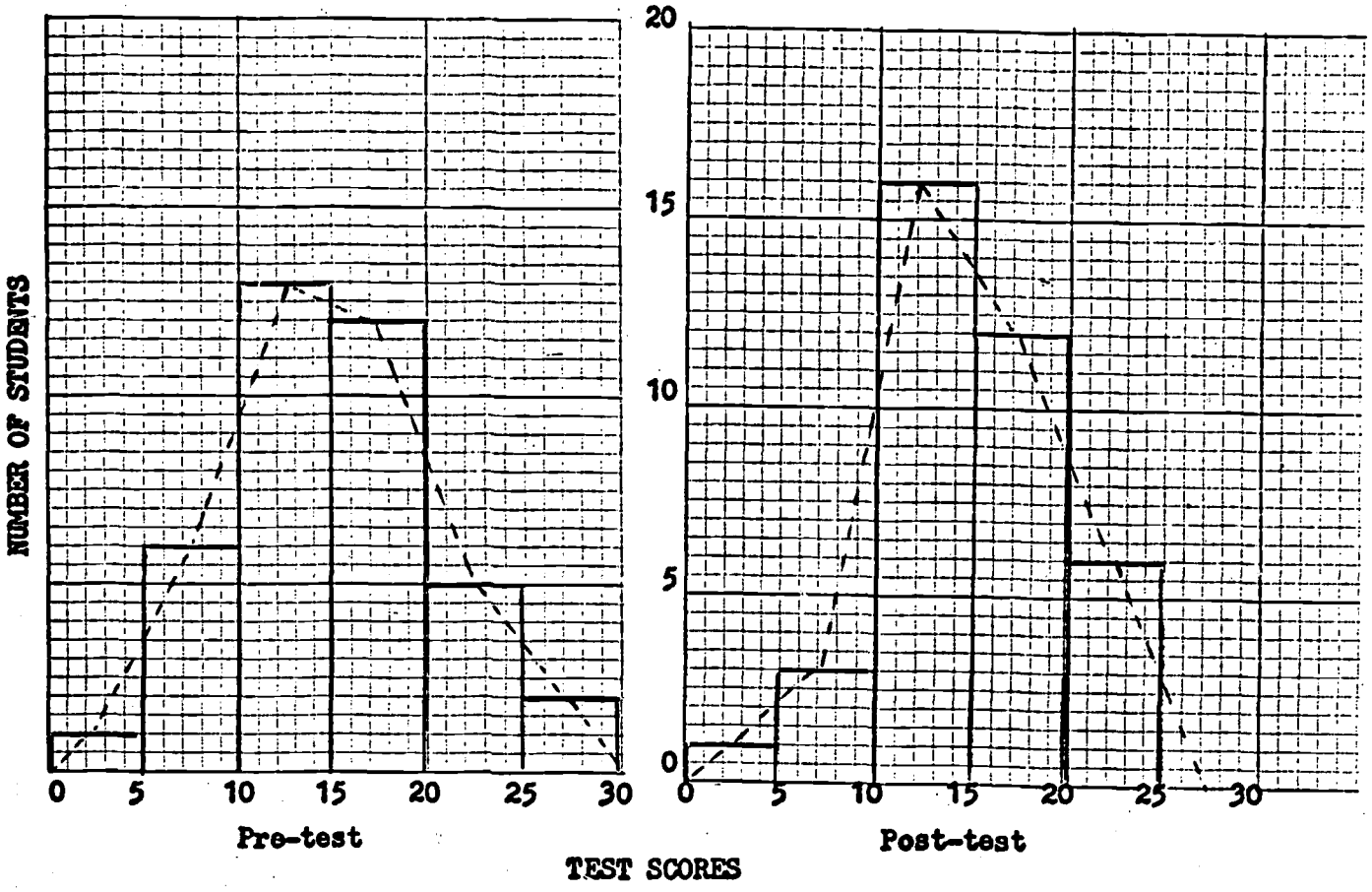


Figure 11

HISTOGRAM & FREQUENCY POLYGON
BENEVOLENCE SCALE

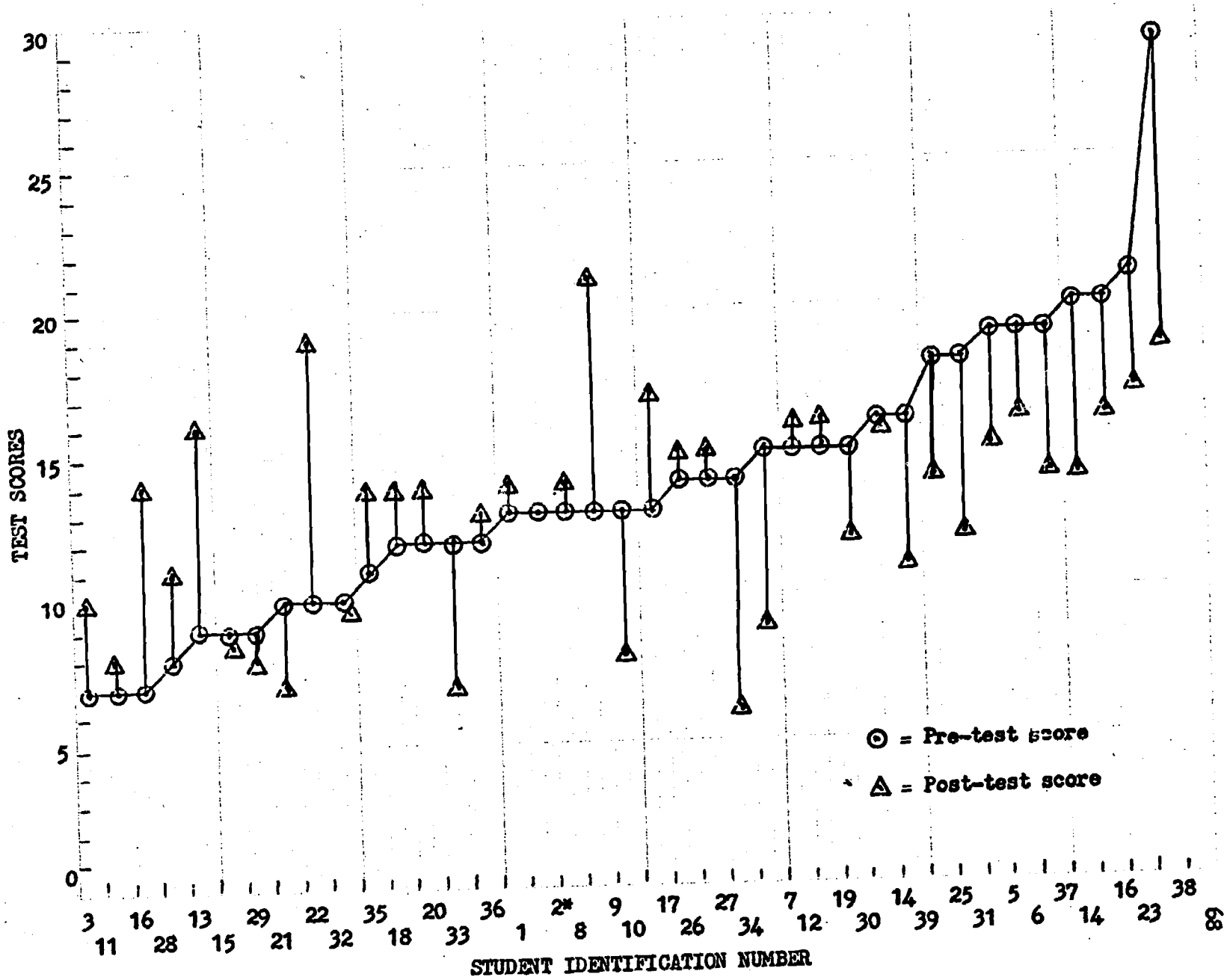


Figure 12

*Student dropped out

STUDENT SCORES
LEADERSHIP SCALE—SIV

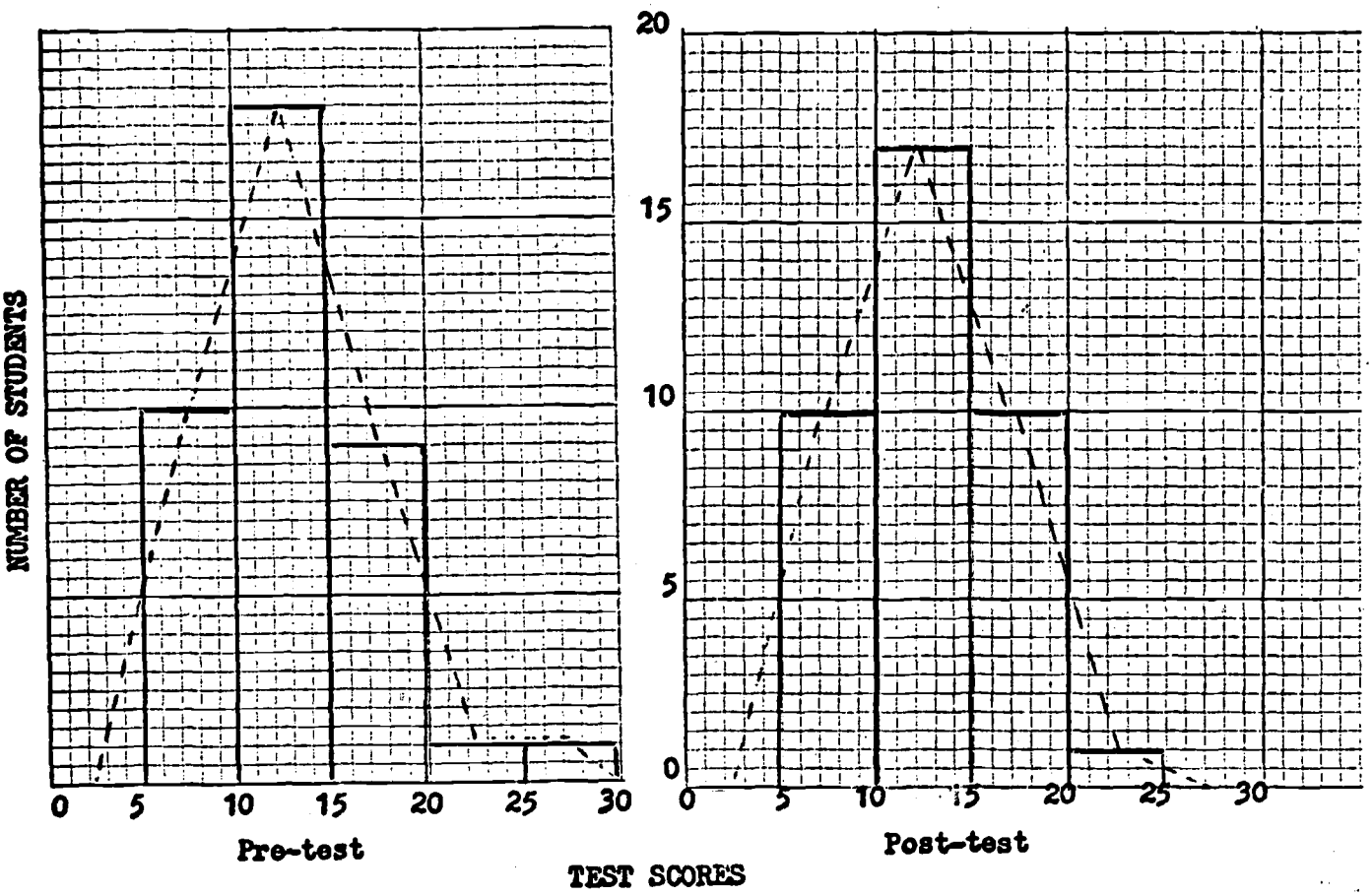
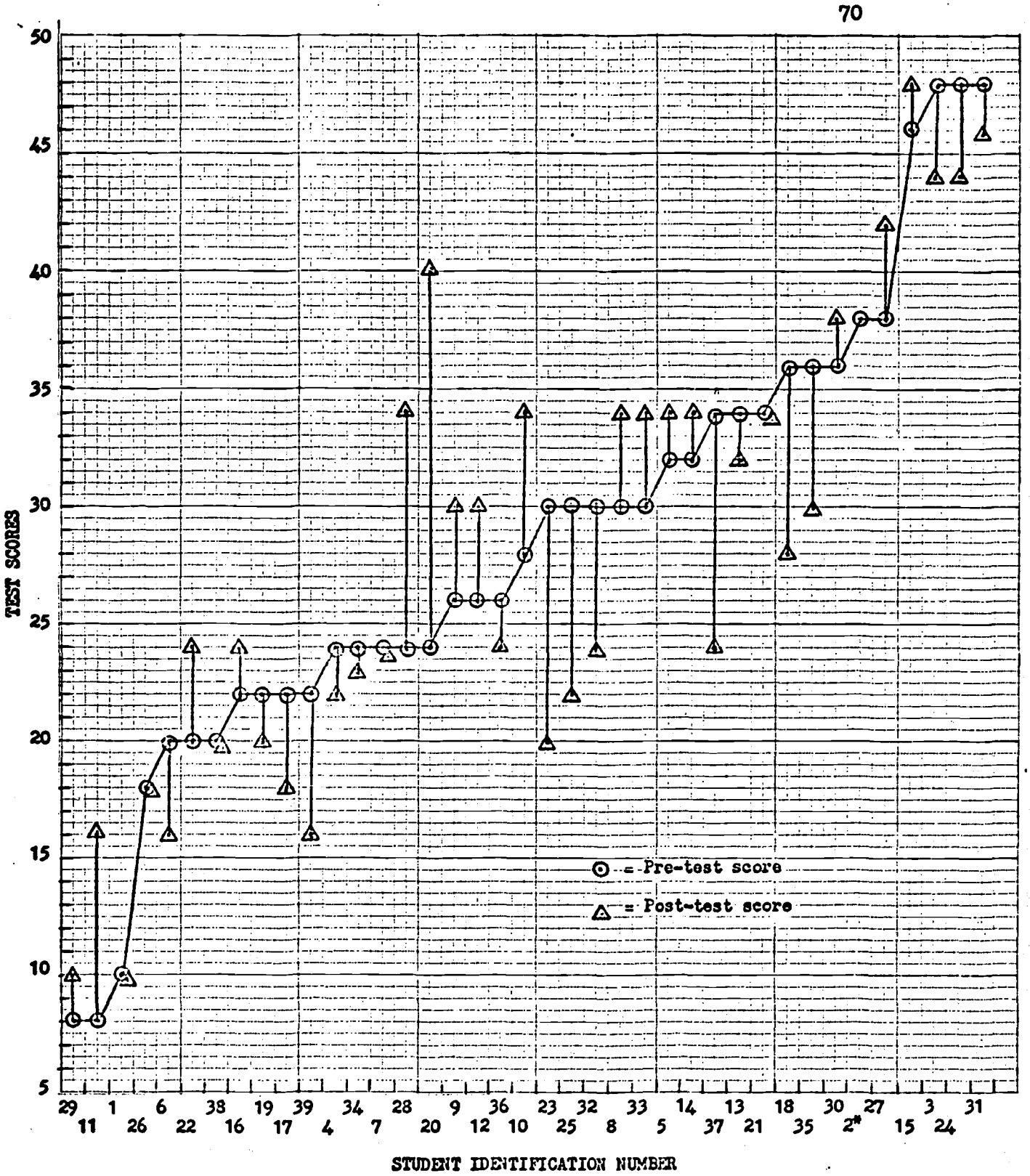


Figure 13

HISTOGRAM & FREQUENCY POLYGON
LEADERSHIP SCALE—SIV



*Student dropped out

Figure 14

STUDENT SCORES
SELF-ESTEEM INDEX

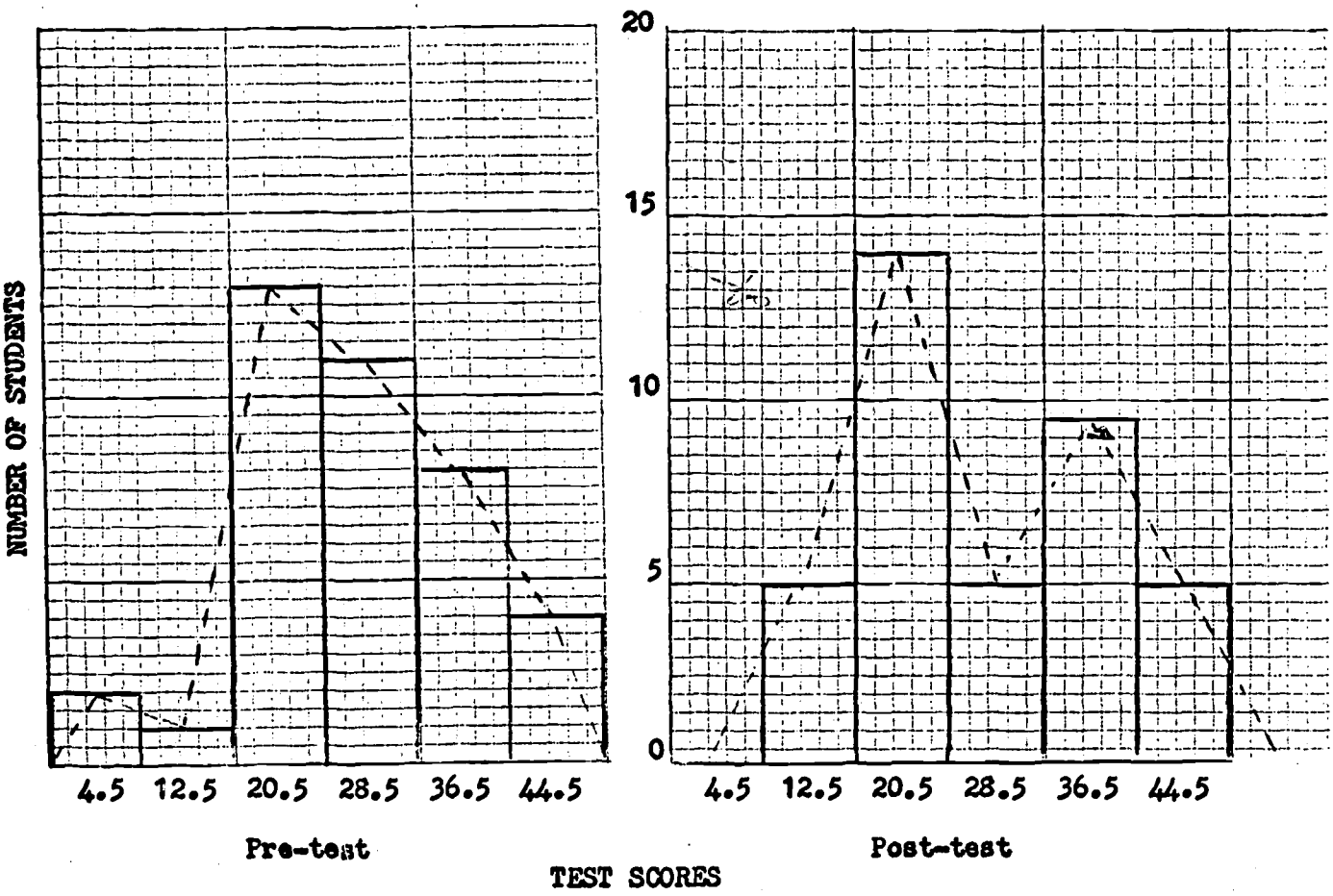


Figure 15

HISTOGRAM & FREQUENCY POLYGON
SELF-ESTEEM INDEX

in the students' feelings about themselves as reflected in a self-esteem rating.

On the SEI the 38 students answered 25 questions each for a total of 950 questions before the decision-making program and 950 questions after. The percentage of the 295 answers changed after the fifteen week interval was 31%. Of the changed answers, 49.4% (146/295) increased and 50.6% (149/295) decreased. The data indicates students increased and decreased their scores at about the same rate.

The Sign Test indicated no significant difference in the pre- and post-test scores of any of the tests used in this study. Table 3 presents the raw data of the Sign Test and shows a total of 171 positive changes in the test scores and 147 negative changes. The difference of 24 was not significant.

TABLE 3

SIGN TEST RAW DATA

Test Instrument	+Change	No Change	-Change
Survey of Interpersonal Values			
S-Support	24	0	14
C-Conformity	15	5	18
R-Recognition	22	4	12
I-Independence	20	1	17
B-Benevolence	18	1	19
L-Leadership	18	3	17
Self-Esteem Index	16	5	17
Behavior Rating - Self	24	2	12
Behavior Rating - Teacher	14	3	21
Totals	171	24	147

BEHAVIOR RATING FORM (BRF)

Self-Rating

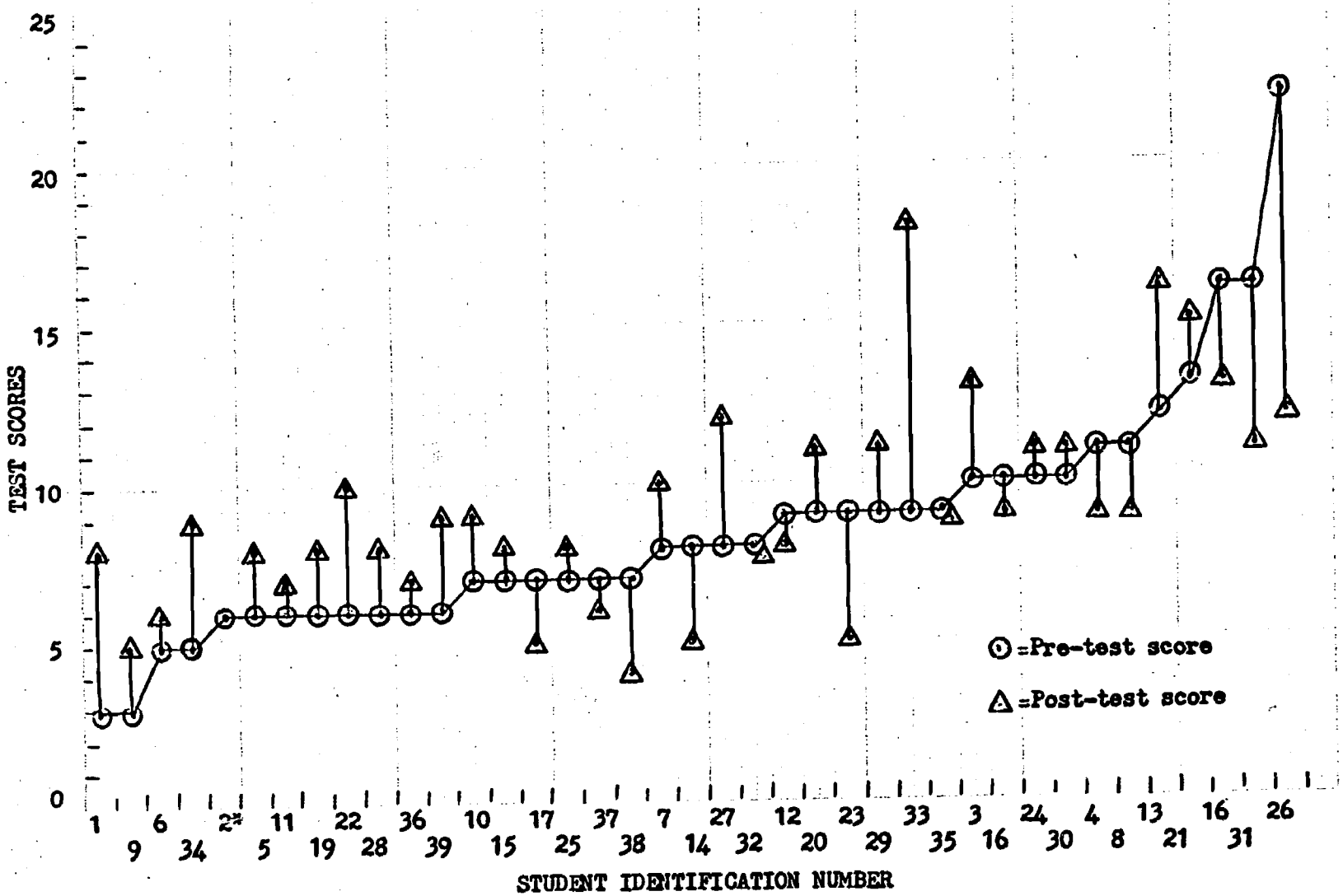
On the BRF as the students rated themselves, the individual pre- and post- scores are presented in Figure 16. The range on the pre-rest was 16-3 and the post-test range was 18-4. Figure 17 denotes visually the group scores. The means for the pre- and post-tests were $\bar{x}_1 = 8.53$, $\bar{x}_2 = 9.23$ and the standard deviations were $S_1 = 3.63$, $S_2 = 3.07$.

The scores did not change enough to indicate any significant behavior change following the decision-making program. Consequently, the H_o3 is accepted; no significant change in the behavior of students as measured by the self-rating scales will occur.

Teacher-Rating

Teachers rated the students on the same rating scale as the students rated themselves. The teacher scores for individuals are indicated in Figure 18. The scores ranged from 39-4 on the pre-test and from 33-3 on the post-test. Figure 19 presents the group information on this particular test. The means for the test were $\bar{x}_1 = 8.66$, $\bar{x}_2 = 9.47$, and the standard deviations were $S_1 = 4.95$, and $S_2 = 6.96$.

In analyzing to ascertain whether significant differences exist between student and teacher ratings prior to and following the decision-making program, the following t test was used:



*Student dropped out

Figure 16

STUDENT SCORES
BEHAVIOR RATING FORM

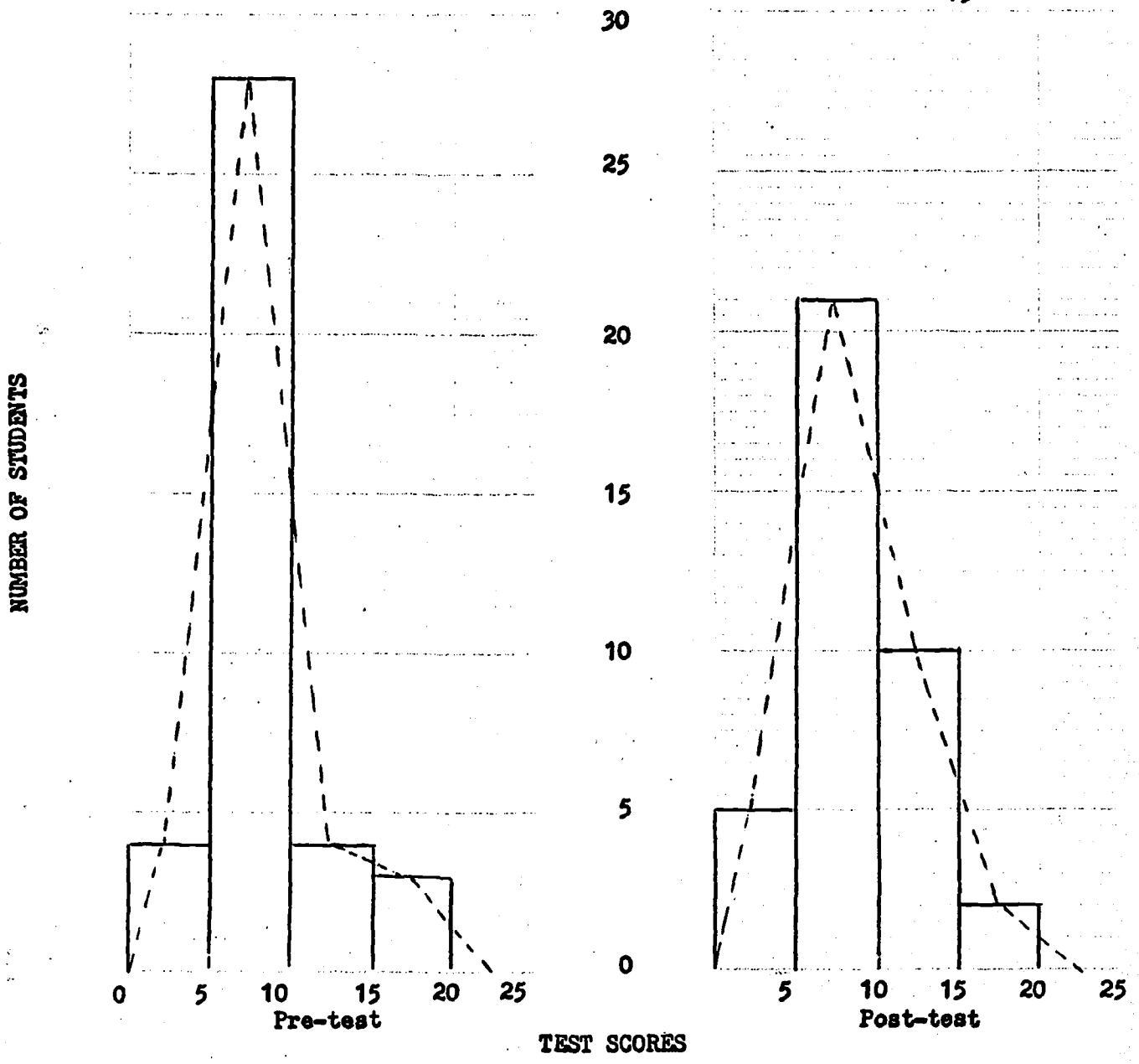


Figure 17

HISTOGRAM & FREQUENCY POLYGON
STUDENT RATINGS—BRF

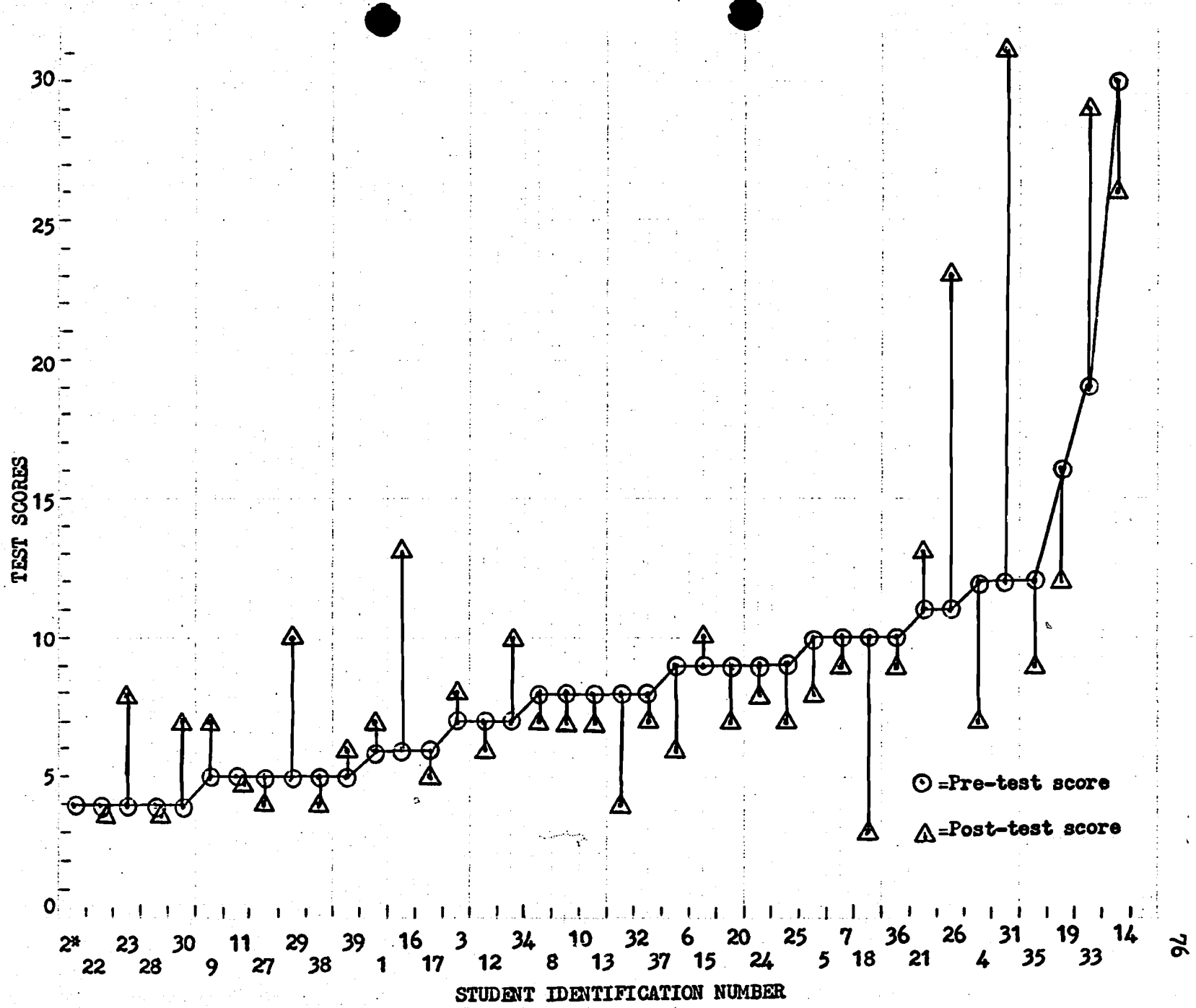


Figure 18

*Student dropped out

TEACHER RATINGS
BRF

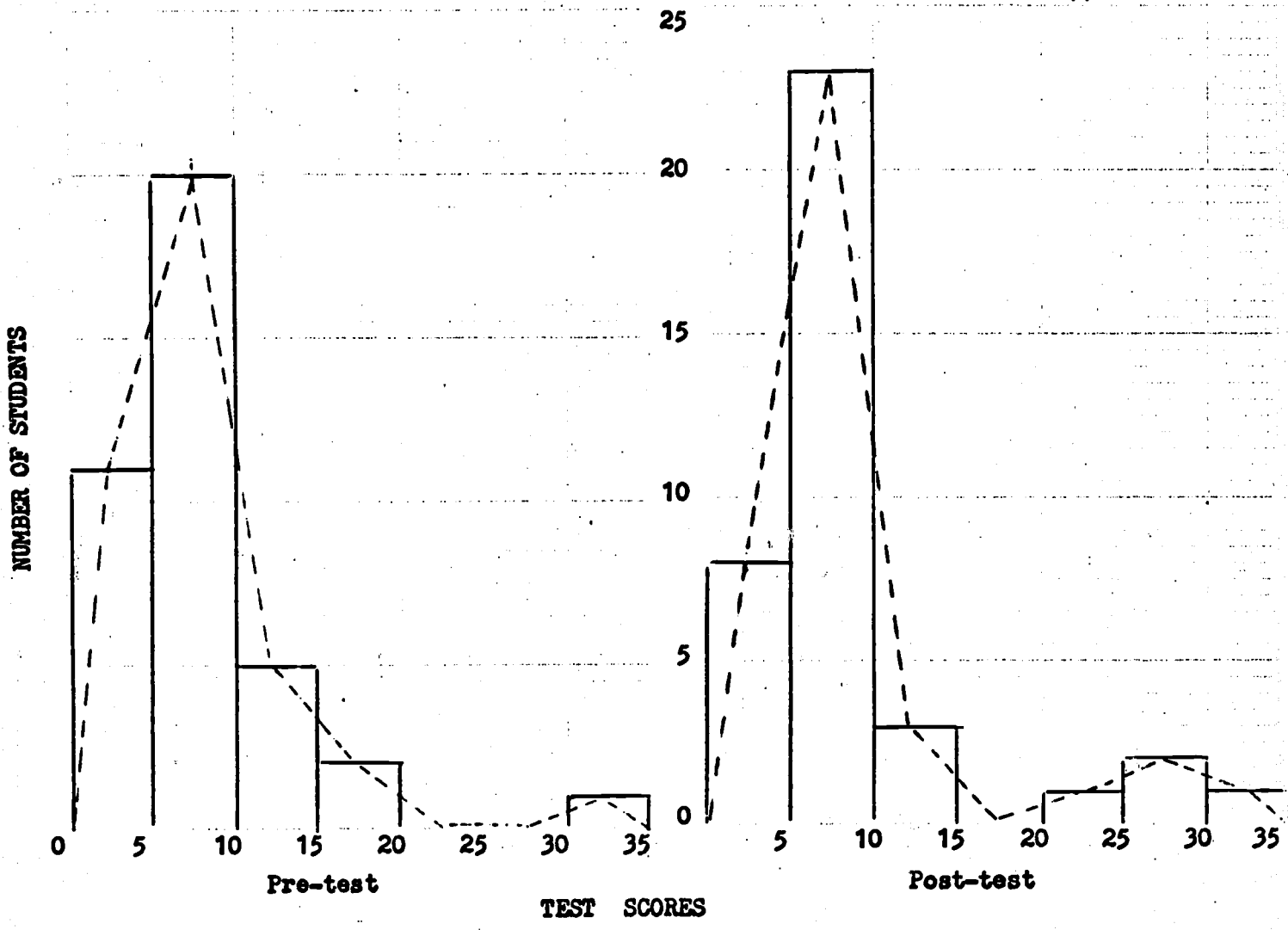


Figure 19

HISTOGRAM & FREQUENCY POLYGON
TEACHER RATINGS--BRF

$$t = \frac{(\bar{x}_1 - \bar{x}_2)}{\sqrt{s_1^2 + s_2^2}}$$

In each instance the variance was <1, indicating little or no difference between the student and teacher ratings.

The analysis of the data showed no significant differences exist between student and teacher evaluation either before or following the decision-making program. Therefore, the H_o4 is accepted; no change will occur in the behavior of students as measured by the teacher ratings.

OTHER DATA

At the conclusion of the decision-making program, the students were asked to respond to three questions via the tape recorder. This was done because some students had written communication problems and found it difficult to write ideas but could verbalize quite adequately. The three questions each student replied to were: (1) what have you gained from this experience? (2) what have you liked most about these sessions? (3) how would you change this program? The responses to Question Two were without exception dealing with their feelings about themselves and included such statements as, "nobody laughs when you answer any questions here and that feels good," "here my ideas are just as good as anybody else's," "I have never talked like this before and it is fun," "I don't feel so dumb when I can say something I think is important and others listen to me," "I haven't really heard

things like this before; guess everybody has trouble deciding things, just like me." Students' responses to all three questions were positive and, for these students, enthusiastic.

It appeared that although the paper and pencil test of self-esteem yielded no significant differences, the student evaluation of the program indicated otherwise.

From the scores on the Behavior Rating Form no significant change was indicated but this lack of change was not supported by results of other evidences tabulated. The number of times these students (N_2=38) had been removed from classes for three weeks prior to the initiation of the program had been 207. For the last three weeks of the program, these students had been put out of class a total of 19 times. The decrease in the number of times removed from class is some indication of change in classroom behavior in itself since this difference of 188 is significant at the .05 level. The students still had the same teachers for the same subjects but their classroom behavior had changed in some manner evidently. Teachers also could have become more tolerant of certain behaviors if they felt some relief was being provided to them through this particular decision-making program. Whatever the cause, something was occurring to alter the number of times these students were being put out of classes.

Another behavior change was observed via grades. The reporting period coincided relatively close to the conclusion of the program, and grades are one more indication of student behavior.

Of the thirty-eight students, 25 improved their grade point average, 10 dropped, and 3 remained the same. This change is significant at the .10 level. Some of the improvement in grades could be the result of spending more time in class instead of being in isolation.

A summary of pre- and post- means and standard deviations of all the tests administered in the investigation is tabulted in Table 4. From this data it is noteworthy that the post- means were mostly higher. Although these higher means cannot be described as statistically significant, they can be interpreted as evidence that the decision-making paradigm had some effect upon the students' behavior.

TABLE 4

SUMMARY OF MEANS AND STANDARD DEVIATIONS

Test Instrument	$\bar{x}_1$	$\bar{x}_2$	S_1	S_2
Survey of Interpersonal Values				
S-Support	14.66	15.81	4.72	4.84
C-Conformity	13.66	14.05	3.94	4.93
R-Recognition	11.51	12.89	4.63	5.13
I-Independence	16.66	17.21	5.34	6.26
B-Benevolence	15.76	15.81	5.60	5.60
L-Leadership	13.84	13.15	4.59	3.58
Self-Esteem Index	28.41	28.02	9.76	9.76
Behavior Rating - Self	8.53	9.23	3.63	3.07
Behavior Rating - Teacher	8.66	9.47	4.95	6.96

SUMMARY

None of the pencil and paper tests in the study indicated any change of statistical significance in the behavior of students following a decision-making program. However, the statistics from the tests do not represent the only evidence gathered in the fifteen week program. Significant change was reflected through decreased numbers of times these students were removed from classes by their teachers for unacceptable behaviors. Improved grades were also possible indications of positive change in these students. The generally higher post-test means also point to an indication that some change had occurred during the decision-theory program.

If we dissect only one dimension of this research, we can define part of the inability to statistically discriminate behavior change. For example, values are a part of a person's behavior pattern, yet it seems extremely difficult to obtain a measure of such attributes on a pencil and paper test. A pencil and paper test validated on behavior would, of course, be at least as useful as it would be difficult to perfect. The problem of determining change depends upon the adequacy of measurement. Consequently, until such measurement is perfected, other evidences of change in behavior appear important and relevant. Therefore, the other data gathered in this investigation tend to support the research hypotheses.

CHAPTER V

SUMMARY AND CONCLUSIONS

In general, the results of this study provided limited support for the effect of a decision-making paradigm on the behavior of middle school behavior-problem students. The decrease in the numbers of class removal incidence and the improvement of grades as well as the self-reported improved feelings of self-esteem, all were indicative of some specific changes in student behavior. Although the tests did not reflect statistically significant change, it is proposed that this was due to the lack of discriminating testing instruments rather than an ineffective program. Change in student behavior was complicated since the study concerned only students with very obvious and somewhat deviant problems. Behavior of problem students must be viewed as symptomatic of a number of underlying psychodynamics which relate differently to the same symptom.

The lack of significant change of student behavior as rated by the teachers may be a deficiency of the rating scale. These scores as representative of behavior change certainly did not correlate with the noticeable decrease in numbers of times the students were removed from class for behavior infractions. Keeping the student in the classroom is (1) an indication his behavior has changed somewhat so that it is acceptable to the teacher, or (2) an indication the teacher has changed requirements concerning a particular

behavior. The teachers maintained their requirements had not altered; hence, it is reasonable to conclude that the decreased numbers of student removal from classes represents behavior change. These results suggest an extension of the previous findings of the Palo Alto School District study which concluded that the greater the knowledge of strategies and consequences the more likely the student will be able to choose outcomes he desires or those which will not get him into trouble.

The import of the accuracy of self-esteem may be questioned also because of the measurement technique. Furthermore, the measurement of change in self-esteem provides no assurance that this will be followed by change in observable behavior. Perhaps the most valid expression of real self-esteem change of these students was presented in their taped evaluations. Apparently the opportunity to express their ideas and to hear what others were thinking and how they were reacting to their school/life situations was an important need for the behavior problem student. The decision-making process met this need and some positive changes began to surface. Even though the Recognition Scale of the SIV test was part of the test for value change, it supported the self-reported evaluations of the students in terms of self-esteem. The change represented their need to be looked up to and admired, to be considered important, to attract favorable notice.

The face of change as described in these findings is limited and cannot be presumed to be universal. The small number of subjects in the study as well as the absence of cross-validation data mitigates

against over-generalization. Despite the limitations of this study, the findings would encourage the use of the decision-making paradigm as another effective device for counselors to use with some behavior problem students.

An experimental attitude is necessary for the individual counselor who views part of his role as a change agent. If counseling is a learning process and a talking process, then the possibility is obvious that it could move the client toward a goal of change effectively. Therefore, the counselor must develop methods of being effective in a variety of settings with a variety of individuals. The decision-making paradigm offers some promise as a tool for a counseling approach to encourage clients to be open to change and to have the courage to try more effective strategies in their decision-making. More accountable counseling may become a greater possibility when more specific treatments and outcome measures are developed which are appropriate and sensitive enough to detect change.

There are implications for curriculum development, as well, since the decision-making paradigm could be used with large groups of students as a teaching tool. As an additional outgrowth of this paradigm, the decision-making program may be a helpful tool in preventing problems for the adolescent too.

A specifid implication of this study is that tools and techniques for counseling the behavior-problem client demand further investigation.

APPENDIX

TABLE 5

ANALYSIS OF VARIANCE
FOR EFFECT OF DECISION-MAKING PARADIGM UPON
VALUES OF STUDENTS

Source of variance	SS	df	Ms	F
Support Scale--SIV				
Between groups	40.3644	3	13.4548	< 1
Program effect	27.8421	1	27.8421	1.16
Interaction	53.7990	3	17.9330	< 1
Conformity Scale--SIV				
Between groups	91.1066	3	30.3688	1.6532
Program effect	0.1184	1	0.1184	< 1
Interaction	30.3562	3	10.1187	< 1
Recognition Scale--SIV				
Between groups	325.5215	3	108.5091	5.5619*
Program effect	84.2105	1	84.2109	4.2827*
Interaction	37.3071	3	12.4357	< 1
Independence Scale--SIV				
Between groups	318.6499	3	106.2166	3.2973*
Program effect	5.2631	1	5.2631	< 1
Interaction	25.3823	3	8.4607	< 1
Benevolence Scale--SIV				
Between groups	221.2909	3	73.7569	2.6731**
Program effect	0.0	1	0.0	< 1
Interaction	7.2104	3	2.4034	< 1
Leadership Scale--SIV				
Between groups	19.4813	3	6.4937	< 1
Program effect	9.5922	1	9.5922	< 1
Interaction	115.7019	3	38.5673	2.3209**

* $p < .05$
** $p < .10$

TABLE 6

RAW SCORES FOR GROUP I

Student ID#	SEI		Support		Conformity		Recognition		Independence		Benevolence		Leadership	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	10	10	14	06	17	15	09	10	09	20	28	25	13	14
2	38	*	17	*	09	*	20	*	16	*	14	*	13	*
3	48	44	22	17	14	15	09	18	15	10	22	20	07	10
4	24	22	10	14	13	15	14	16	23	16	10	11	20	14
5	32	34	15	19	14	11	11	12	23	19	08	14	19	15
6	20	16	17	13	12	19	08	11	11	14	24	17	19	16
7	24	24	10	15	16	21	13	05	12	16	23	24	15	09
8	30	34	15	13	19	20	13	08	12	15	20	20	13	14
9	26	30	22	11	16	16	20	12	12	13	10	13	13	21
10	28	34	12	14	17	14	14	12	20	25	13	18	13	08
11	08	16	16	21	06	06	08	06	17	29	27	20	07	08
12	26	30	07	12	17	17	15	17	16	08	12	15	15	16

Student ID#	BRF-Self		BRF-Teacher	
	Pre	Post	Pre	Post
1	03	08	06	07
2	06	*	04	*
3	10	13	07	08
4	11	09	12	07
5	06	08	10	08
6	05	06	09	06
7	08	10	10	09
8	11	09	08	07
9	03	05	05	07
10	07	09	08	07
11	06	07	05	05
12	09	08	07	06

*Student dropped out

TABLE 7

RAW SCORES FOR GROUP II

Student ID#	SEI		Support		Conformity		Recognition		Independence		Benevolence		Leadership	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
13	34	32	18	08	18	17	20	10	16	10	11	18	09	16
14	32	34	09	17	12	10	14	07	18	17	15	14	16	16
15	46	48	20	27	07	09	13	19	29	17	19	10	09	09
16	22	24	17	13	16	15	02	12	18	16	14	20	07	14
17	22	18	12	16	15	15	09	11	15	19	16	13	13	17
18	36	28	16	18	16	15	17	18	14	09	16	14	12	14
19	22	20	16	21	12	13	12	14	10	15	14	11	15	16
20	24	40	12	16	15	18	11	07	17	10	18	24	12	14
21	34	34	08	16	13	10	06	05	16	31	20	21	10	07
22	20	24	15	13	12	08	05	13	24	19	15	18	10	19

Student ID#	BRF-Self		BRF-Teacher	
	Pre	Post	Pre	Post
13	12	16	08	07
14	08	05	31	27
15	07	08	09	10
16	10	09	06	13
17	07	05	06	05
18	16	13	10	03
19	06	08	16	12
20	09	11	09	09
21	13	15	11	13
22	06	10	04	04

TABLE 8

RAW SCORES FOR GROUP III

Student ID#	SEI		Support		Conformity		Recognition		Independence		Benevolence		Leadership	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
23	30	20	20	21	12	06	12	23	14	14	15	08	21	17
24	48	44	15	20	14	08	18	20	15	21	12	04	20	16
25	30	22	20	15	07	09	18	15	15	17	09	16	18	14
26	18	18	11	12	19	12	12	15	15	20	18	15	14	15
27	38	42	16	15	20	20	18	18	13	08	14	11	14	15
28	24	34	03	17	03	15	02	18	05	16	01	12	08	11
29	08	10	21	30	09	07	09	13	23	16	19	15	09	08
30	36	38	10	16	12	15	16	19	10	07	21	19	15	12

Student ID#	BRF-Self		BRF-Teacher	
	Pre	Post	Pre	Post
23	09	05	04	08
24	10	11	09	08
25	07	08	09	07
26	22	12	11	23
27	08	12	05	04
28	06	08	04	04
29	09	11	05	10
30	10	11	04	07

TABLE 9

RAW SCORES FOR GROUP IV

Student ID#	SEI		Support		Conformity		Recognition		Independence		Benevolence		Leadership	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
31	48	46	11	13	19	17	09	09	23	26	19	12	18	12
32	30	24	19	12	19	27	07	08	13	08	18	23	10	10
33	30	34	12	15	17	24	12	07	25	20	12	14	12	07
34	24	23	23	18	10	15	09	07	26	27	08	17	14	06
35	36	30	22	17	14	17	11	10	11	13	19	16	11	14
36	26	24	16	26	12	07	09	09	19	24	08	13	13	12
37	34	24	11	10	16	15	07	18	23	20	16	10	19	14
38	20	20	10	11	12	10	10	18	15	21	15	11	29	18
39	22	16	12	13	12	11	07	02	22	28	22	25	16	11

Student ID#	BRF-Self		BRF-Teacher	
	Pre	Post	Pre	Post
31	16	11	12	33
32	08	08	08	04
33	09	18	19	29
34	05	09	07	10
35	09	09	12	09
36	06	07	10	09
37	07	06	08	07
38	07	04	05	04
39	06	09	05	06

TABLE 10

STATISTICAL DATA FOR SELF-ESTEEM INDEX

Class intervals	Class boundaries	Class mark	Number of scores		Frequency of scores	
			Pre	Post	Pre	Post
1-8	.5 — 8.5	4.5	2	0	2	0
9-16	8.5 — 16.5	12.5	1	5	1	5
17-24	16.5 — 24.5	20.5	13	14	13	14
25-32	24.5 — 32.5	28.5	11	5	11	5
33-40	32.5 — 40.5	36.5	8	9	8	9
41-48	40.5 — 48.5	44.5	4	5	4	5

TABLE 11

STATISTICAL DATA FOR SUPPORT SCALE

Class intervals		Class boundaries		Class mark		Number of scores		Frequency of scores	
Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
0-5	5-10	0.5-5.5	5.5-10.5	3	8	1	3	1	3
6-10	11-15	5.5-10.5	10.5-15.5	8	13	7	17	7	17
11-15	16-20	10.5-15.5	15.5-20.5	13	18	13	12	13	12
16-20	21-25	15.5-20.5	20.5-25.5	18	23	13	3	13	3
21-25	26-30	20.5-25.5	25.5-30.5	23	28	5	3	5	3

TABLE 12

STATISTICAL DATA FOR CONFORMITY SCALE

Class intervals		Class boundaries		Class mark		Number of scores		Frequency of scores	
Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
0- 5	6-10	0.5- 5.5	5.5-10.5	3	8	1	11	1	11
6-10	11-15	5.5-10.5	10.5-25.5	8	13	6	15	6	15
11-15	16-20	10.5-15.5	15.5-20.5	13	18	17	9	17	9
16-20	21-15	15.5-20.5	20.5-25.5	18	23	15	2	15	2
	26-30		25.5-30.5		28		1		1

TABLE 13

STATISTICAL DATA FOR RECOGNITION SCALE

Class intervals	Class boundaries	Class mark		Number of scores		Frequency of scores	
		Pre	Post	Pre	Post	Pre	Post
0- 5	0.5- 5.5	3	3	3	3	3	3
6-10	5.5-10.5	8	8	14	10	14	10
11-15	10.5-15.5	13	13	14	12	14	12
16-20	15.5-20.5	18	18	8	12	8	12
21-25	20.5-25.5		23		1		1

TABLE 14

STATISTICAL DATA FOR INDEPENDENCE SCALE

Class intervals		Class boundaries		Class mark		Number of scores		Frequency of scores	
Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
0- 5	6-10	0.5- 5.5	5.5-10.5	3	8	1	8	1	8
5-10	11-15	5.5-10.5	10.5-15.5	8	13	3	6	3	6
10-15	16-20	10.5-15.5	15.5-20.5	13	18	15	15	15	15
15-20	21-25	15.5-20.5	20.5-25.5	18	23	10	4	10	4
20-25	26-30	20.5-25.5	25.5-30.5	23	28	8	4	8	4
25-30	31-35	25.5-30.5	30.5-35.5	28	33	2	1	2	1

TABLE 15

STATISTICAL DATA FOR BENEVOLENCE SCALE

Class intervals	Class boundaries	Class mark		Number of scores		Frequency of scores	
		Pre	Post	Pre	Post	Pre	Post
0-5	0.5- 5.5	3	3	1	1	1	1
6-10	5.5-10.5	8	8	6	3	6	3
11-15	10.5-15.5	13	13	13	16	13	16
16-20	15.5-20.5	18	18	12	12	12	12
21-25	20.5-25.5	23	23	5	6	5	6
26-30	25.5-30.5	28		2		2	

TABLE 16

STATISTICAL DATA FOR LEADERSHIP SCALE

Class intervals	Class boundaries	Class mark		Number of scores		Frequency of scores	
		Pre	Post	Pre	Post	Pre	Post
5–10	5.5–10.5	8	8	10	10	10	10
11–15	10.5–15.5	13	13	18	17	18	17
16–20	15.5–20.5	18	18	9	10	9	10
21–25	20.5–25.5	23	23	1	1	1	1
26–30	25.5–30.5	28		1		1	

TABLE 17

STATISTICAL DATA FOR BEHAVIOR RATING–SELF

Class intervals	Class boundaries	Class mark		Number of scores		Frequency of scores	
		Pre	Post	Pre	Post	Pre	Post
0– 5	0.5– 5.5	3	3	4	5	4	5
6–10	5.5–10.5	8	8	28	21	28	21
11–15	10.5–15.5	13	13	4	10	4	10
16–20	15.5–20.5	18	18	3	2	3	2

TABLE 18

STATISTICAL DATA FOR BEHAVIOR RATING-TEACHER

Class intervals	Class boundaries	Class mark		Number of scores		Frequency of scores	
		Pre	Post	Pre	Post	Pre	Post
0- 5	0.5- 5.5	3	3	11	8	11	8
6-10	5.5-10.5	8	8	20	23	20	23
11-15	10.5-15.5	13	13	5	3	5	3
16-20	15.5-20.5	18	18	2	0	2	0
21-25	20.5-25.5	23	23	0	1	0	1
26-30	25.5-30.5	28	28	0	2	0	2
31-35	30.5-35.5	33	33	1	1	1	1

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