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STUDENT SELF APPRAISAL: A TECHNIQUE TO MODIFY  
STUDENT BEHAVIOR

by

Girolama Thomasina Garner

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A Dissertation Submitted to the Faculty of the  
DEPARTMENT OF ELEMENTARY EDUCATION  
In Partial Fulfillment of the Requirements  
For the Degree of  
DOCTOR OF EDUCATION  
In the Graduate College  
THE UNIVERSITY OF ARIZONA

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GRADUATE COLLEGE

I hereby recommend that this dissertation prepared under my  
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entitled STUDENT SELF APPRAISAL  
A TECHNIQUE TO MODIFY STUDENT BEHAVIOR  
be accepted as fulfilling the dissertation requirement of the  
degree of Doctor of Education

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## ABSTRACT

The purpose of this study was to investigate the effectiveness of two approaches designed to help intermediate grade students use self appraisal as a technique to modify their self concepts and classroom verbal and non-verbal behavior.

The 325 subjects involved in this experiment were randomly assigned to one of three groups: partial treatment, full treatment, or control. Full treatment consisted of eight, twenty minute videotape recordings, and eighteen, weekly, forty minute classroom sessions devoted to self appraisal activities. During the self appraisal sessions the students in the full treatment group evaluated the behavior of other students and also evaluated their own behavior as recorded on videotape. Partial treatment differed from full treatment in one aspect: students in the partial treatment group were not videotaped; therefore, they never had the opportunity to evaluate themselves but did evaluate the behavior of others.

Analysis of covariance was used to test between group significance of difference in self concept on the posttest data after taking into account the initial differences of grade level, IQ, and performance on the self concept pretest.  $t$  tests were computed to determine the

significance of the difference between the correlated means of the recorded scores for pre- and post-verbal and nonverbal behavior of students in the full treatment group and for significance of the difference between the correlated means of pre- and post-self concept test scores for all groups. The instruments used for collection of data were Waetjen's test, Self Concept As A Learner Scale, and the Student Self Appraisal Observation System developed by the author.

Several hypotheses designed to examine change in self concept and change in verbal and nonverbal classroom behavior were tested. Each hypothesis was tested for statistical significance at the .05 level.

Results of the study were as follows:

1. Students who viewed themselves on videotape and who coded their own behavior did significantly change their positive nonverbal behavior but did not significantly change their positive verbal behavior.
2. Students in the partial and full treatment groups made significant change in self concept while students in the control group did not significantly change in self concept.
3. There was no significant difference in self concept on the posttest data between the partial and full treatment groups.
4. There was significant difference in self concept on the posttest data between the partial treatment

group and control group and between the full treatment group and the control group.

5. The greatest significant difference of change in self concept was recorded for students in the partial treatment group.

Based on the findings of the research it would appear that it would be safe to make the following conclusions:

1. Intermediate grade children can accept the responsibility for change in their own nonverbal classroom behavior and can point that change toward a positive direction.
2. Change in the self concepts of intermediate grade students can be promoted by means of self appraisal activities.
3. The additional factor of students viewing and evaluating their own behavior does not produce enough impact to cause significant change in self concept.

## CHAPTER I

### THE PROBLEM

#### Introduction

Education is an exceedingly complex undertaking which rarely can be labeled as success or failure due to the complicated nature of evaluation as well as the educational process itself. The evaluating process must be viewed as a means of making the educational process more effective. One problem of evaluation is devising evidence-gathering procedures which can be clearly related to the educational process; another problem is that of relating this evaluating process to the teacher and the student so that both can make the most effective use of the instruments and evidence (Gage 1963). Techniques for conducting evaluation have not kept pace with the deluge of innovative ideas and programs found in today's educational field (Dwyer and Critchfield 1972).

Teachers have always had the responsibility of evaluating their students, and more recently students have been formally evaluating their teachers (Cubberley 1922). It has been demonstrated that student feedback can be a useful, convenient, reliable, and valid means of

self-supervision and self-improvement for the teacher (Gage, Runkel, and Chatterjee 1960).

Modern electronic equipment has made possible more objective means of evaluating the educational process. Early attempts to record the teaching-learning process focused on teacher behavior as related to teacher effectiveness and self-evaluation (Flanders 1963). Since this procedure has been found to be profitable for the teacher, perhaps the student could become more effective in his role, and could modify the way he feels about himself if he had the opportunity to observe and evaluate his behavior.

This study is an attempt to use self appraisal techniques to establish relationships between classroom behavior and self concepts held by fourth, fifth, and sixth grade students.

#### Statement of the Problem

The purpose of this study was to assess the effectiveness of two approaches designed to help students modify their classroom behavior. The main problem considered was that students who became aware of and critically analyzed their behavior through self-appraisal by means of video tape recordings would evidence greater change in self concept than would students who did not have the opportunity to see themselves in action.

### Significance of the Study

A pupil's self concept can be a significant factor in determining how he utilizes his academic potential. Individuals such as Bledsoe and Garrison (1962) refer to the self concept as one of the most vital areas of human growth. They state that an individual's perception of himself may be the central factor influencing his behavior. Research conducted by authorities in the field (see Review of Literature) support the contention that a teacher can facilitate a pupil's motivation and academic learning by creating situations which allow the student to enhance his self esteem.

Kokovich and Matthews (1971) write that even though it is difficult to evaluate the effect of self image on learning, a student with a poor self image often experiences academic difficulties, particularly in the area of reading. These experimenters devised a pilot study to determine if providing an opportunity to help others would improve the self concept of a student with a poor self image. It was concluded, with objective evidence, that the students in the program were successful in improving their self image as well as their reading.

According to Wallis (1969):

It is becoming increasingly important in our society that every person should feel that he can contribute to the welfare of his country, that he has had his chance in life, and that he has made the most of it. If students can feel this about

themselves, they can think well of themselves, and they can come to think well of their associates, community, and country.

Student's self-evaluations are due in part to the interaction between self-consciousness, the attitudes of others as they are perceived and interpreted, and the adjustments made in his own self concept. It is necessary for teachers to approach the problem of understanding human behavior by recognizing that there are certain types of needs relevant to self-esteem that are universal in form but which have different content in different situations. Since the form is constant, each teacher can develop guidelines for his own classes without violating the existence of alternative measures in other situations.

Students are human beings who have the same needs, the same urges, and are subject to the same principles of behavior as others. Schools in remembering these facts may substantially improve not only student performance but also the level of gratification in academic life (p. 141).

Deutsch (1960) in his study of minority groups and class status as related to achievement, concluded that the self concept is learned, and that the teacher and others associated with the child participate in this learning and changing process.

Since self concepts develop to a great extent through the perceptions and evaluations of others, we come to see ourselves as we think others see us; however, these self concepts often bear only slight resemblance to a person's actual characteristics (Serot and Teevan 1961, Luszki and Schmuck 1965). If, then, an individual's perception of himself is such an important factor in determining his behavior, it would seem that one of the greatest

contributions a teacher could make to his pupils would be to help each person identify himself and make a realistic appraisal of himself.

Since electronic equipment which was prohibited by cost and technical considerations earlier is available for classroom use today, making use of this equipment would permit students to see themselves as others see them. The teacher by giving the student an opportunity to view his own behavior and to analyze that behavior would be placing the responsibility for changing that behavior upon the student himself.

The rationale for self appraisal is tied to basic beliefs concerning behavior held by perceptual psychologists. Behavior is primarily determined by an individual's perception of external stimuli rather than by the external stimuli. What governs behavior from the point of view of the individual himself are his unique perceptions of himself and the world in which he lives (Combs and Snygg 1959, Rogers 1969). Combs and Snygg illustrate this point of view with the following example:

Recently, I heard a kindergarten child try to tell his teacher how pretty a little girl looked in her brand-new party dress. "She was pretty as . . . , pretty as . . . , pretty as a mother!" said the little fellow searching his mind for the prettiest thing he could think of. Now the fact of the matter is, from the outside observer's point of view, this child's mother could only be described as a very homely woman (p. 17).

Changes occur in behavior as change occurs in the perceptual field of the individual and consequently in the perception of the environment and self. Only the individual can reorganize his own perceptual field and thus alter his behavior (Rogers 1951).

Within the same framework of thought Maslow (1962) states:

Life is a continual series of choices for the individual in which a main determinant of choice is the person as he already is (including his goals for himself, his courage or fear, his feeling of responsibility, his ego-strength or "will power," etc.). We can no longer think of the person as "fully determined" where this phrase implies "determined only by forces external to the person." The person, insofar as he is a real person, is his own main determinant. Every person is, in part, "his own project," and makes himself (p. 36).

In the same vein Dreikurs, Grunwald, and Pepper (1972) write concerning children:

The individual has the power to move in any self-determined direction. All his actions, qualities and characteristics as well as his emotions can be understood by his effort to find a place for himself in society. A child's actions may be based on faulty assumptions about life and about himself. Although his behavior may appear to be inappropriate, it reflects his conviction that this is the only possible way for him to be significant.

He cannot perceive reality as it is, only as he interprets it. How the child looks at life, at others, and at himself, and what he decides to do about it, depends on his private logic. The trained educator has to help him to understand himself, his goals, his private logic (p. 56).

With this rationale in mind this study was directed toward attempting to point pupil's self concepts in more

positive directions by making it possible for students to become aware of and responsible for changing their own behavior through self-evaluation.

### Hypotheses to be Investigated

Based upon the statement of the problem, the following hypotheses were formulated to provide direction for the study. They are as follows:

#### Hypothesis 1

Students who receive instruction in the analysis of classroom behavior, who view themselves in the classroom situation as recorded on video tape, and who analyze their own behavior on those tapes will exhibit greater change in self concept than will those students who receive instruction in the analysis of student behavior, who analyze the behavior of other students but do not have the opportunity to view and analyze their own behavior.

#### Hypothesis 2

Students who receive instruction in the analysis of classroom behavior, who view themselves in the classroom situation as recorded on video tape, and who analyze their own behavior on those tapes will exhibit greater change in self concept than will those students who do not receive instruction in the analysis of student behavior, who do not

analyze the behavior of other students, and who do not have the opportunity to view and analyze their own behavior.

#### Hypothesis 3

Students who receive instruction in the analysis of classroom behavior, who analyze the behavior of other students but do not have the opportunity to view and analyze their own behavior will exhibit greater change in self concept than will those students who do not receive instruction in the analysis of student behavior, who do not analyze the behavior of other students, and who do not have the opportunity to view and analyze their own behavior.

#### Hypothesis 4

Students who receive instruction in the analysis of classroom behavior, who view themselves in the classroom situation as recorded on video tape, and who analyze their own behavior on those tapes will exhibit significant change in positive verbal behavior.

#### Hypothesis 5

Students who receive instruction in the analysis of classroom behavior, who view themselves in the classroom situation as recorded on video tape, and who analyze their own behavior on those tapes will exhibit significant change in positive nonverbal behavior.

### Hypothesis 6

Students who receive instruction in the analysis of classroom behavior, who view themselves in the classroom situation as recorded on video tape, and who analyze their own behavior on those tapes will exhibit significant change in self concept.

### Hypothesis 7

Students who receive instruction in the analysis of classroom behavior, who analyze the behavior of other students but do not have the opportunity to view and analyze their own behavior will exhibit significant change in self concept.

### Hypothesis 8

Students who do not receive instruction in the analysis of classroom behavior, who do not analyze the behavior of other students, and who do not have the opportunity to view and analyze their own behavior will not exhibit significant change in self concept.

### Assumptions Underlying the Research Problem

For the purposes of this study the following assumptions were made:

1. Behavior is determined by the point of view held by the student himself. Students behave according to

the facts as they perceive them, and not according to the facts as others perceive them.

2. Students may develop a greater sense of personal worth and respect for themselves as individuals as a result of an awareness of their interaction with others through self appraisal.

#### Limitations of the Study

This investigation was conducted under the following limitations:

1. The study was limited to intermediate grade students in an average socioeconomic neighborhood.
2. The data were limited to the verbal and nonverbal behavior of students as recorded on videotape and coded according to the Student Self Appraisal Observation System, performance on the Lorge Thorndike Intelligence Test, and performance on the Self Concept As A Learner Scale self concept test.
3. The quality of the data collected by means of video tape was limited by the quality of the tape and the effectiveness of the training in the coding of those tapes provided students by their teachers.
4. Viewing of the tapes was limited by the availability of the video playback units.
5. The coding of nonverbal behavior was done solely by the students on tape.

Definition of Terms

For the purpose of this study the following definitions were utilized:

**Student Self Appraisal**

The process by which the student evaluates his own behavior and the effect of that behavior upon himself and others.

**Student Verbal Behavior**

The manner in which the student communicates orally his thoughts or feelings.

**Student Nonverbal Behavior**

The manner in which the student communicates through body language his thoughts or feelings.

**Self Concept**

The abstraction the student has developed about the attributes, capacities, objectives, and activities which he possesses and pursues.

**Coding**

The process of tabulating verbal and nonverbal student behavior as measured by the Student Self Appraisal Observation System.

**Positive Verbal Behavior**

Verbal behavior coded as supportive or receptive as defined by the Student Self Appraisal Observation System.

**Positive Nonverbal Behavior**

Nonverbal behavior coded as supportive or receptive as defined by the Student Self Appraisal Observation System.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

The experimental study considered the modification of the self concepts of students by means of self appraisal techniques. Therefore, in this chapter, it was appropriate to review the literature related to both self concept and self evaluation.

#### Literature Related to Self Concept

Research concerning self concept examines the role the concept of self plays in determining how one functions in his environment and the role that the environment plays in the shaping of the self concept. In the school setting, much of the research is directed toward studying the relationship between self concept and academic achievement. Waetjen (1967), Liddle (1967), Coopersmith (1967), and Barclay (1972) conducted research that produced reliable instruments for use in measuring self concept for school aged children.

Teachers have long sensed the significant relationship between a student's performance in school and his concept of himself. They have felt that students who feel good about themselves and their capabilities are more likely to succeed than those students who see themselves and their

capabilities in a negative light. For many years studies have supported this contention that academic success or failure is related to self attitudes on the part of the student (Gates 1941, Brandt 1958, Swayze 1966, Bledsoe 1967).

More recently, the relationship of self concept to reading achievement was the major focus in a study conducted by Jackson (1972). In relating self concept to reading achievement Jackson wrote:

It has been found that the young child who is intelligent and has a good self-image learns to read easily. One with equal intelligence but a poor self-image is plagued by difficulties. The slow learner who has a good self-image makes slow but steady progress. Learning to read is an unbearable burden to the slow child with a poor self-image (p. 755).

An investigation carried out by Cummings (1970) supports the idea that positive self concepts are related to adequate reading achievement. In her study, the researcher found that children's reading achievement in comparison to that of others in their own classroom seemed more related to their self concept than achievement in comparison to one's own anticipated reading achievement. The most significant differences were found between groups based on reading level in their own classroom. This study supports the earlier findings of Toller (1968) who compared self evaluations of achieving readers with those of retarded readers.

In a study researched by Frerichs (1970) concerning inner city black sixth graders, the results showed that children who had a high degree of school success as measured by grade point average and reading level also scored significantly higher in self esteem as measured by the self esteem scale developed by Rosenberg (in Frerichs 1970) than did less successful students.

Berretta (1970), realizing that an adequate self concept is an important component of successful reading, studied methods of developing self concept within the context of an individualized approach to reading. She wrote: "The self concept may be thought of in the same way as basic skills such as vocabulary building, recognition skills and work attack techniques, each of which is an important element of reading success" (p. 233).

Cohn and Kornelly (1970) working with students whose records showed a history of reading failure over several years, structured a program which offered help in the needed skill area as well as help in evolving a successful self-image. The authors stated:

We cannot ignore the defeatist and negative attitudes of the student when we deal with his reading needs. To ignore these attitudes is to court failure. To recognize them and try to change them is to pave the way toward a more successful learning experience (p. 201).

Jones (1971) attested that a child's economic background and resultant social position, as well as his self

concept are important factors which influence a child's success in learning to read. The author also noted that:

Emotional stability comes through the development of a positive self-concept. It can be stimulated and encouraged. Help the child succeed in little things. Comment on these successes and encourage him to try more new things. Show him his progress. Accept small failures as a matter of course and lead him to try again. Along with all the developmental experiences comes the attitude the child is developing toward himself as a person, as a learner, and as a potential reader (p. 51).

Hirsch and Costello (1970), in studying the variables they thought seemed most important for distinguishing between achievers and underachievers, identified these to be the quality of the children's interpersonal relationships and self concepts. According to their research, achievers had experienced more intense, satisfying and predictable relationships with family members than had the underachievers. During the interviews and puppet plays which were part of the treatment, achievers manifested clear self concepts and predominantly positive self evaluations. The underachievers, with only two exceptions, manifested more diffuse self concepts and predominantly negative self evaluations.

Crabbe and Scott (1972) investigated the relationship between academic maladjustment and general personal maladjustment with the focus on general self concept and school performance. In the study, four instruments were used to measure adequacy of the general self concept while

three instruments were used to measure the adequacy of performance in school. Each subject was also rated on his general adjustment by two close friends. The results of the study indicated that self reported inadequacy as a student correlated substantially with self-reported general personal inadequacy; however, school performance as reflected by grade point average did not correlate highly with friends' ratings of adjustment.

Peper and Chansky (1970) sought to test the hypothesis that rankings of arithmetic achievement are significantly related to rankings of esteem as an achiever in arithmetic. They investigated the relationships between rankings made by the teacher, rankings by peers, and rankings by the pupil himself. The coefficients of correlation reported in the study between test rankings and rankings by the pupils themselves, their peers, and their teachers were of sufficient magnitude to support the hypothesis.

Strauss and Dufour (1970), realizing how important a part the understanding of self is to school success, devised a humanities course for sixth grade children entitled "Discovering Who I Am." The authors committed themselves to the premise that before the arts could become relevant, the student who was being exposed to them must be aware of the "I" who is doing the experiencing. Because of this premise, the course places a primary stress on

materials and methods of achieving a sense of identity rather than on the arts as structure. The authors wrote: "A person's role is not only his patterned way of evaluating and behaving toward the world of others; it is also his way of evaluating and behaving toward himself" (p. 86). The concentration in the course is on role-playing to explore group behavior and the dilemmas of the child as he searches for his identity and his personal values.

Van Wessel (1968) also worked out a special program for underachievers from junior high grades. The students in this program were assigned to tutor younger children classified as slow learners. The tutors volunteered and were given choices as to what they would teach; however, stress was usually on their own educational needs. An evaluation of the program indicated that the tutors learned from teaching and increased in self confidence and self esteem through participation in the program.

Since researchers have established that there is a relationship between self concept and achievement, other researchers have been concerned with methods or techniques of changing self concepts. Many have promoted changes in school environment as the vehicle by which changes in self concept may occur.

In view of this Sears (1963) sought an answer to the following question: Would the self esteem of children be greater after a year in a classroom where the teacher

showed relatively more behavior of a rewarding and approving type than in a classroom where the teacher was less rewarding? She found that there was a positive relationship between the children's self esteem and the amount of reward and approval used by the teacher.

Spaulding (1965), in analyzing recorded classroom behavior of superior teachers, sought to discover how teacher method and style affected pupil personality development and educational relationship. He found a significant relationship between placement of a child in a superior teacher's classroom and subsequent self-esteem, academic achievement, and creative thinking. Another interesting relationship his study supported was that a high degree of private communication yielded high self-esteem.

In the same vein Flowers and Marston (1972) investigated the problem of changing the behavioral self confidence of low self confident elementary school students within a classroom setting. Their study attempted to artificially force an increase in self confidence responses which could then be regularly reinforced. The procedure used was a take-off on the national television game of College Bowl. The experimenters found that there was a positive relationship between competence in the game and initial confidence; however, the rise in competence was least for the low self-confident students who gained most in confidence. The researchers interpreted this to mean that students who

increased most in confidence did so by risking more wrong answers, and therefore, getting the correct answer is even less of a reinforcer for confidence than is suspected. They stated that the implication here for the teacher was that it seems to be of value to raise self-confidence even at the expense of competence.

Pigge (1970), in reviewing literature concerning children and their self concepts, cited a study by Payne and Dunn (in Pigge 1970). These researchers also sought to change self concepts of children through manipulation of the classroom environment. The purpose of their investigation was to study the effect of group counseling upon the self concept of culturally different students. The experimenters believed that group counseling activities would provide such children the opportunity to discuss common problems, causes of their concerns, and appropriate ways to solve them. Their findings indicated that more positive gains in self concept were accomplished by those pupils who experienced the group counseling.

Another study reported by Pigge (1970) was that done by Whisenton (1970). Her research concerned self concepts of sixth grade Negro students. This researcher sought to investigate the efficacy of planned experiences with outstanding Negro citizens of the community upon the self concepts of the sixth graders. The experimental group of students in this study had one hour each week of planned

experiences with adult models for a period of 16 weeks. At the termination of the study, it was found that the experimental group was significantly different from the control group in gains in positive self attitudes. Because of this, the researcher concluded that Negro children who have an opportunity to interact with Negro adult models of achievement, may thereby enhance their attitudes toward self.

Purkey and Graves (1970) focused their research concerning self concept on children enrolled in two different types of schools. They compared children in an innovative, team teaching, ungraded elementary school with those in a traditional self contained classroom design. The general findings of the study indicated that the students enrolled in the innovative school did show evidence of greater self esteem. Another interesting finding was that as grade level increased, the differences in self esteem between the pupils of the two schools increased.

Similarly, Simula (1969) collected data which were used to enable educators to determine the extent to which the Duluth Individualized-Contract Program was successful in implementing the individualization of instruction concept. The study concerned fifth and sixth graders both from the experimental program and from a more conventional program. The researcher found that students who were enrolled in the individualized-contract form of classroom organization attained expected levels of academic achievement; however,

at the same time they acquired less positive attitudes about learning, school, fellow classmates, and themselves.

Scheiner (1969) sought to study achievement and attitudes in first graders who were assigned to class by sex and taught by a teacher of the same sex. The single sex classes scored significantly higher in reading than the control group, but there were no significant differences between the all boys classes and the all girls classes in reading and arithmetic. The all boys classes were more positive toward school, learning, teachers, peers, and self than the other groups. The control group was more positive in these attitudes than the all girls classes.

Linton (1972), in his research concerning the relationship of self concept and achievement of Anglo and Mexican-American sixth graders of three different socioeconomic groups, found no significant differences between the ethnic groups in terms of self concepts; but he did find significant differences in self concept between the different socioeconomic levels. High socioeconomic level was associated with high self concept, and low socioeconomic level was associated with low self concept.

Much of the recent research centers on the so-called "disadvantaged student"; however, Harvey and Denby (1970) writing an NCTE/ERIC Report article entitled "Life at an Early Age: Nourishing Self-Concept in the Classroom" stated: "The aroused interest in the plight of minority group

students has served to focus our attention on an aspect of personality (self concept) that is important in all children, regardless of their ethnic origins" (p. 993).

#### Literature Related to Self Evaluation

Classrooms created by educators are places designed to help students grow. Researchers have developed various techniques through which students receive and use data about themselves to facilitate the growth process (Simon and Boyer 1967). This growth process implies the changing of behavior. Leading perceptual psychologists contend that each person behaves according to the way things appear to him, and that before behavior can change, the nature of the individual's perceptual field must change. Reorganization of one's perceptual field can only be done by the individual himself. Accordingly, emphasis on self evaluation as a means to expedite behavior change is appropriate (Combs 1962, Maslow 1962, Kelley 1962, Rogers 1951, 1969).

As early as 1961 Cate used the media of photography as the device through which children could exercise self evaluation. The purpose of the investigation was to test the effectiveness of this media in the modification of children's classroom behavior and self concepts. It was hypothesized that the opportunity for children to observe photographs of themselves in school within a positive frame of reference would enable them to develop a more positive

self concept, to develop more positive behavior, and to more rapidly correct antisocial or unacceptable behavior, personality structure, and self concept. In the judgment of the investigator, the impact of the pictures produced important changes of personality and self concept in some subjects. The available tests used did not provide accurate measurement of the changes produced.

Considerably later, Tamashiro (1971) also used photography as a means of amplifying self esteem in the elementary school. In his study children were exposed to a number of photographs in which they appeared. Most of the photographs displayed one of the behaviors listed on a checklist which was used in determining the level of the student's self esteem at the beginning of the study. The photographs were discussed among the children and presented in various contexts. The value judgments concerning the photographs were made by the students rather than the teachers. After four months, the behavior checklist was again used to see whether or not the frequency of behaviors identified as those with positive value had increased. It was found that all but four of the children in the class had maintained or amplified their self esteem. Only one of the four students who had not was in the experimental group.

Maehr and Stallings (1972), in two studies in which the effects of internal (self) and external (from others) evaluation on performance and motivation were considered,

found that internal evaluation seemed to spawn greater motivation for continued performance at difficult tasks than did external evaluation. The elementary school subjects who were evaluated by others appeared to prefer easy tasks to difficult tasks. This tendency was most clearly exhibited in the case of high achieving boys.

The traditional role of television has been to transmit messages to mass audiences. More recent uses of television which allow face to face interaction can lead to new kinds of behavior by the parties involved. In an attempt to assist children to monitor their behavior independently Mazza and Tufte (1972) permitted children to view themselves from a different perspective than usually available. These experimenters videotaped children without their knowledge in a classroom situation chosen by the children. Before the children viewed the videotape, they verbally assessed their behavior as they perceived it during the taping. No comment was made by the teacher. The children were asked to determine whether or not their assessment of their behavior was realistic. If the children needed help, teachers asked specific questions about the behavior on the videotape. Without guidance from the teachers, the children set goals for themselves for changes they felt desirable. There were no controls utilized by the teachers who worked with this technique of using videotape recordings as a means of helping children become more responsible for their behavior. It was

noted, however, that behavior improvement occurred in several children who were utilizing the videotape self assessment technique. Future controlled research was planned.

Krause (1972) wrote that person-centered evaluation is beneficial toward development of self concepts. He contends this type of evaluation enables teachers to create safe learning climates for children. The author has found to his dismay that many elementary teachers are reluctant to involve students in evaluation. He notes that these teachers have failed to realize that children evaluate everything that takes place in the classroom anyway. Children accept that which is meaningful and tune out that which has little value for them. The author stated:

When students are involved in evaluation of their own work, they establish their own goals with the aid of the teacher and assume responsibility for the attainment of these goals. They are given an opportunity to develop skills in solving their own problems. And, most important, their own self concept is enhanced because they set a course of direction in which success can be attained. It is a well known fact that self-motivated learning is far more successful than that which is directed by external force (p. 293).

Older students, particularly on the college level, have been given various opportunities to analyze feedback about themselves. Self evaluation is an important component of the micro teaching technique developed at Stanford (Allen 1966). After teaching a micro lesson which has been taped, students, student teachers, or teachers receive immediate

feedback. This procedure which has been adopted into various programs and adapted by others has proved to be a successful means of changing behavior (Allen and Fortune 1966, Amidon and Rosenshine 1968, Goodkind 1968).

Kearney (1970) used videotape recordings, Flanders Interaction Analysis, and regular classroom observation in a study involving three groups of elementary student teachers. Videotapes were used by one experimental group to describe, identify, and classify the teaching style exhibited by members of that group. The Flanders group learned to identify and categorize ten types of verbal behavior as defined in the Flanders system. The students, themselves, tabulated the data and interpreted their own matrices. The third group of students was exposed to the traditional approach to supervision. The supervisors met with each of these students for a conference following a formal observation of the student in a classroom teaching situation. The results of the study did not offer overwhelming support for the efficacy of any of the three approaches although the positive direction of change of students in the Flanders group was evident. The experimenter interpreted this to mean that the students in the Flanders group moved in an atmosphere that was far less threatening than either of the other two groups. In addition since these students were involved in analyzing their own teaching behavior this may

have encouraged them to experiment with methods and materials in order to teach their students more effectively.

Allen and McDonald (1967) also assessed the usefulness of television recordings in improving student teaching performance. These experimenters wished to compare the effects of self evaluation of a teaching performance with feedback provided by a supervising instructor. They found evidence to indicate that self evaluative procedures were more effective in improving teaching performance than the more traditional approach to supervision. These findings were supported in part by Johnston (1969) who studied the relationship of self supervision to change in attitude and behaviors of secondary student teachers. The method of self supervision used for the experimental group studied included videotapes combined with Flanders Interaction Analysis within the concept of micro teaching. The control group was supervised in the traditional manner used in most colleges of education. The researcher concluded that the method of self supervision studied provided a desirable alternative in the supervision of student teachers where indirect teaching and pupil accepting attitudes are sought. In contrast, however, Bern (1967) in his research found no significant differences in the performance of student teachers who had used videotapes as a means of self evaluation compared to those who had been evaluated in the conventional manner. He contributed this lack of significant differences between the

groups to an erroneous statistical comparison that resulted in a sleeper effect plus extreme variations in feedback content.

Belt (1967), Borg (1968), and Webb (1969) all designed programs which utilized videotaped feedback and self evaluation of performance of student teachers. They all concluded that video feedback is an effective means of evaluating performance of student teachers and emphasize that the concern is no longer with justification of such programs but with the expansion of such programs.

Brooks (1967) and Weidner (1972) conducted studies designed to assess the effectiveness of various inservice programs with respect to modification of teacher classroom behavior. The techniques used in these studies provided teachers with videotaped feedback which was coded according to previously selected observation systems. Inservice sessions provided teachers with the skills necessary to analyze and interpret data about themselves. Both studies reported this procedure to be an effective way of modifying teacher classroom behavior.

Young (1969) reviewed research concerned with modification of teaching behavior using audio and videotaped models. After considering the findings of Orme (1966), Young (in Young 1969), Allen (1966), Allen and McDonald (1967), and White (1968), Young (1969) concluded:

Video taped models are most effective when a supervisor provides a discrimination training while a teacher is viewing or when such discrimination training is provided by the addition of auditory and visual cues on the tape.

Listening to an audio taped model with a typescript and subsequently verbalizing the model teacher's indirect verbal behavior effected significant behavior changes in the predicted direction (p. 402).

He further suggested:

Although a number of questions need further investigation, the concept of modeling has been demonstrated as an effective technique in modifying teacher behavior and warrants further serious consideration. The self-instructional models (audio and/or video) offer an opportunity for teacher educators to supplement and complement the training of preservice and inservice teacher alike (p. 402).

Dwyer and Critchfield (1972) writing in Educational Technology suggested that new media for evaluation may be just as appropriate as new media for innovating. They stated that the use of the film media in evaluation comes closer than any other means in communicating accurately what goes on in a given situation, where it goes on, and how it goes on. The only means that is better is actually being there since films provide a very revealing mirror.

## CHAPTER III

### RESEARCH PROCEDURES

This chapter describes (1) the work done in preparation for the study, (2) the selection and description of the sample population, (3) the design of the study, (4) the instruments used to gather the data, (5) the description and use of equipment, and (6) the treatment of the data.

#### Activities Prior to the Study

Preparation for a student self appraisal program began during the spring semester of 1970. During the months of February and March, the experimenter, having been previously involved as both a participant in and team leader for the Teacher Self Appraisal In-Service Program of Tucson School District #1, discussed with her class of fifth and sixth graders the concept of student self appraisal. Together, the students and researcher developed a list of student behaviors exhibited by members of the class during periods of classroom interaction (Appendix A).

The class of twenty-nine members was randomly divided into three groups. Each group participated in a micro teaching situation that was recorded on videotape. The three micro teach situations were designed to portray classroom interaction. These experiences consisted of a

discussion which culminated a unit of study on pollution in the Tucson area, the introduction of a reading lesson, and a science lesson involving an inquiry approach to the processes of observation and inference as related to animals and their adaptation to the environment. Each student had the opportunity to view the replay of all three videotapes, as well as the opportunity to code his own behavior or that of one of his classmates according to the behavior checklist devised earlier.

For coding purposes a superimposed beep sounded every ten seconds on the videotapes, and coding consisted of checking the appropriate behavior at each beep. After the coding sessions, the children were given time to discuss their classroom behavior as they so desired; however, no value judgments were made by the teacher. This involvement on the part of the students and experimenter led to the development of the Student Self Appraisal Observation System (Appendix B) and to the submission of a proposal for a research study involving a planned and controlled program of self appraisal for intermediate grade students.

#### Selection and Description of Population

During the first week in September, 1971, the Student Self Appraisal project was discussed with the intermediate grade teachers at Hudlow Elementary School in the Tucson District #1 School System. All six intermediate

grade teachers at Hudlow School expressed a desire to take part in the program. The students in these six classes were assigned to the experimental group designated as Group I. During the same week of September a meeting of the intermediate grade teachers at Kellond Elementary School, a neighboring Tucson District #1 elementary school bordering Hudlow on the south, was held. The Student Self Appraisal Project was explained and accepted favorably. Six of the nine intermediate grade classes were randomly selected, by drawing numbers out of a hat, to participate as the control group. These six classes were designated as Group II. Both Hudlow Elementary School and Kellond Elementary School serve students living in an average, urban, middle class socio-economic area.

The students in each class in Group I were randomly assigned, by drawing numbers out of a hat, to one of two treatment groups: IA or IB. Group IA consisted of sixty students at the beginning of the study: ten students from each of the six classes. Due to changes of address during the experimental period, complete data were compiled for fifty-five of the original sixty students. Group IB consisted of all students in the six classes who were not randomly selected for participation in Group IA. A total of 120 students were assigned to Group IB at the beginning of the experimental period; however, complete data were collected for 116 of these students because of address

changes during the experimental period. The students in Group II numbered 168 at the beginning of the project with 154 of the original 168 remaining at the end of the experimental period.

### Design of the Study

This study was designed to investigate the feasibility of self appraisal as a technique for behavior and self concept modification for intermediate grade children. The self concepts of children in the two experimental groups (IA and IB) and the control group (Group II) were examined as well as the positive verbal and positive non-verbal behavior of experimental group IA.

Students in Group IA received instruction from their teachers in the analysis of student classroom behavior. The instruction consisted of weekly sessions of approximately 40 minute duration of various classroom activities beginning the week of September 27 and continuing through the week of April 24 (Appendix C). To maintain some degree of consistency in the instruction in the classes, biweekly inservice sessions were held for the teachers. A resume of the activities and materials used are included in Appendix D.

The students in Group IA also received instruction in coding student classroom behavior according to the Student Self Appraisal Observation System. The three

videotape recordings made of micro teaching situations in the spring, films of classroom interaction, and role playing situations were the devices used for practice in coding. The teachers made no value judgments concerning the behavior on the films, videotapes, or that exhibited during the role playing situations but merely helped the students identify the types of behavior observed as defined by the Student Self Appraisal Observation System.

Eight twenty minute videotapes were made of students in Group IA at regularly scheduled intervals during the experimental period (Appendix E). The students in Group IA coded their own nonverbal behavior immediately after each taping session. Each student in Group IA also coded his own verbal behavior within two days after each taping session. This schedule was determined by and suited to the convenience of each teacher and class. The children were free to discuss their verbal and nonverbal behavior after they had coded themselves. No value judgments were made by the teachers concerning the results of the coding. The tally sheets, identified by number only, were collected for the pre- and post-tapes and given to the researcher. All other tally sheets were the children's own property to do with as they chose.

Students in Groups IA and IB remained as a class during all taping sessions; however, students in Group IB were out of camera range at all times. Students in Group IB

did receive from their teachers the same instruction, at the same time, in the analysis of student classroom behavior as did Group IA. Students in Group IB also practiced coding student classroom behavior according to the Student Self Appraisal Observation System as did students in Group IA. The students in Group IB coded other students' behavior but never had the opportunity to code their own behavior since they did not appear on the tapes.

The students in Group II, the control group, did not receive instruction in the analysis of classroom behavior nor did they learn to code student behavior according to the Student Self Appraisal Observation System (see Table I).

Table I. Research Design

Treatment	Group		
	IA	IB	II
Pre Self Concept Test (SCAL)	X	X	X
Pre Videotapes--two 20 minute tapes	X		
Classroom Self Appraisal Activities			
1. Weekly 40 minute sessions devoted to analysis of classroom behavior	X	X	
2. Appraisal of behavior of others on videotape	X	X	
3. Appraisal of self on videotape	X		
Post Videotapes--two 20 minute tapes	X		
Post Self Concept Test (SCAL)	X	X	X

### Instruments Used to Gather Data

The instrument selected for purposes of analysis of the change in self concept was the Self Concept As A Learner Scale Test (SCAL, Appendix F) developed by Waetjen (1967). All students involved in the research project were administered SCAL during the week of September 20 before the beginning of the experimental period and again during the week of May 1 after the completion of the treatment period.

This instrument consists of fifty items and is divided into four components which constitute certain dimensions of one's self concept as a learner. Items within each component are judged in terms of the way an adequate learner would respond. The components of the instrument as well as the numbers for the items which are relevant to each are as follows: Motivation, items 1-13; Task Orientation, items 14-26; Problem Solving or Intellectual Ability, items 27-39; and Class Member, items 40-50. Each section is divided into positive and negative statements. In response to descriptive statements such as, "I am usually eager to go to class," the student selects one of the following answers: Completely True (5), Mostly True (4), Partly True and Partly False (3), Mostly False (2), Completely False (1). He records the number that represents the particular answer he chooses.

Separate scores for each component part may be obtained from the test as well as an overall total score. In scoring, positive items are given the same weight as the number which the student put in the blanks for those items. For example, if a student answers item No. 28, which is a positive item, with a response of "5," a weight of "5" is assigned to that item in the scoring process. For negative statements, the procedure is reversed. For example, if a student answers item No. 47, which is a negative item, with a response of "5," a weight of "1" is assigned to that item in the scoring process. The addition of weights assigned to all statements for each component, and for all components, yields a total numerical score for the test.

Three studies of reliability of SCAL have been conducted with so-called normal subjects. The first two studies investigated the overall reliability of the instrument as well as the reliability of each of the components. The third study yielded a reliability figure for the total test only. The results of the studies are presented in Table II.

Since a search for an instrument already developed designed for purposes of describing objectively student verbal and nonverbal behavior proved futile, one was developed by the researcher and a fellow student during the summer of 1971. This instrument had its beginning with the behavior checklist produced by the experimenter and

Table II. Self Concept as a Learner Scale--Reliability Studies

	Moti- vation	Task Orienta- tion	Intel- lectual Ability	Class Member- ship	Total
Study A (test-retest after 7 days)	.61	.73	.80	.66	.80
Study B (test-retest after 8 days)	.61	.81	.73	.75	.90
Study C (test-retest after 35 days)					.90

SCAL has been used with 2,236 students.

intermediate grade children. Through a study of films displaying classroom interaction, the three videotaped micro teaching lessons discussed earlier, and the behavior checklist, the categories for the Student Self Appraisal Observation System evolved.

The Student Self Appraisal Observation System was designed to provide information to students concerning their verbal and nonverbal interaction in the classroom setting. In analyzing interaction between students or student and teacher it is assumed that it is possible to classify all student classroom interaction as either verbal or nonverbal. This observation system utilizes videotape recordings of classroom interaction. Immediately after a videotaping of a classroom situation, the student views the tape recording

and marks on the Student Self Appraisal Observation Tally Sheet, at ten second intervals, the nonverbal behavior he used. Verbal behavior is also coded or marked at ten second intervals and recorded on a tally sheet; however, although desirable, this need not be done immediately after the taping session.

Student verbal interaction and nonverbal interaction is separated into four categories: supportive, receptive, uninvolved, and non-supportive. After the coding of a videotape recording, the tally sheet provides the student a visual pattern of his classroom interaction. At a glance the student can determine for himself the kind of behavior he has exhibited.

The research procedure for scoring of the tally sheets consists of totaling the tally marks for each verbal and nonverbal category. The totals are converted to percentage scores for all categories.

The Student Self Appraisal Observation System was tested by the developers by viewing the three micro teaching tapes mentioned earlier plus other video tapes of classroom interaction recorded during the Teacher Self Appraisal Inservice Program of Tucson School District #1. Definitions of the categories were modified as necessary to provide for more accuracy of cues for students while coding their behavior.

For purposes of analysis of the change in student verbal and nonverbal behavior two twenty minute pre-videotapes were recorded for each group of students in Group IA during the weeks of November 4 and November 11. Two twenty minute post-videotapes were made for each group of students in Group IA during the weeks of April 13 and April 20. The teachers kept a record of the type of classroom situation recorded during the pre-taping sessions and utilized comparable situations for the children during the post-taping periods. To assure some degree of consistency for purposes of analysis of behavior, teachers were given some guidelines for the taping sessions (Appendix G). Four other videotapes were made for each group of students in Group IA at regularly scheduled times between the pre- and post-taping sessions; however, the coded analysis of these tapes was not used for research purposes.

To establish coder agreement among the students involved in the research study, all students in Group IA coded a typescript which contained samples of each type of verbal and nonverbal behavior used in the observation system (Appendix H). This procedure was carried out twice, once during the week of October 25 prior to the first pre-taping session, and again during the week of January 13, the half-way point of the eight taping sessions. The results of the typescript coding, reported in Appendix I, indicated that the agreement among the students in Group IA

was adequate. Each student in Group IA coded his own verbal and nonverbal behavior on eight videotape recordings; however, only the two pre-tapes and two post-tapes were used for the research study. A crosscheck of the coding of verbal behavior was done by the experimenter who coded the verbal behavior for one student, randomly selected, on each of the pre- and post-videotapes. The results of the cross-check agreement is reported in Appendix J. Crosschecking of the nonverbal behavior was not possible, since only the student is capable of responding correctly to the nonverbal categories as defined by the Student Self Appraisal Observation System.

The Lorge Thorndike Intelligence Test was administered to all students involved in the study. This test was scheduled in accordance with the testing program in operation throughout Tucson School District #1.

#### Description of Equipment Used

The basic video recording unit used was the portable Ampex Vr-7000 Video Recorder. To this unit was added a control panel and remotely controlled cameras with zoom lenses and pan-and-tilt mechanisms. The purpose of this modification was to conduct videotaping without having the camera operator in the classroom. Additional accessories included live monitors, switcher, screen splitter, microphones, and a wireless lavalier microphone and receiver.

The portable video receiver with accessories was mounted in a small GMC Van from which all classroom videotaping was controlled by the camera operator. An Ampex VTR 5100 recorder was purchased for video playback purposes. This piece of equipment was housed in the intermediate wing of Hudlow School during the entire experimental period. Six teams of two students each learned to operate the video recorder and were responsible for setting up and operating the recorder for each teacher as requested. After the program was under way, some teachers, becoming familiar with the equipment, preferred to operate the playback unit themselves.

Experienced camera men employed by Tucson School District #1 had been given previous training for classroom videotaping for the Teacher Self Appraisal Inservice Program for Tucson School District #1. This type of camera work was adapted for the Student Self Appraisal Project. For this project the ten students in Group IA in each class were to be on the videotape at all times. Since split screen equipment was used, teachers were given some suggestions concerning the arrangement of the desks occupied by these students (Appendix K). The camera operator was accompanied by the experimenter during the pre-taping sessions to assure that proper classroom interaction was recorded. The students in the classes were familiar with the equipment since it had been used in the building during the previous three years

with classes and teachers involved in the Teacher Self Appraisal Inservice Program of Tucson School District #1.

#### Method of Treating the Data

Treatment of the data for analyzing student behavior and self concept was performed in two phases, each of which contained two parts.

Phase one, part one consisted of handscoring of the pre- and posttest, Self Concept As A Learner Scale, for the sample population. The total numerical score for each test was recorded on a data collection and coding sheet used by the key punch operator in carrying out phase two of the treatment procedures.

Phase one, part two consisted of handscoring the Student Self Appraisal Observation System Tally Sheets marked by students in Group IA as they coded their behavior on the pre- and post-videotapes. The percentage scores obtained for each category, for each student, were also recorded on the coding sheet for use in carrying out phase two of the treatment procedures.

In part one of the second phase of the treatment t tests to determine the significance of the difference between two correlated means as described in Garrett (1958, p. 226) were employed. Using this statistical technique, the difference between the correlated means was determined for the scores on the pre- and posttest Self Concept As A

Learner Scale; for the supportive verbal behavior, the sum of categories 1 and 2 as reported on the Student Self Appraisal Observation Tally Sheets, on the two pre- and two post-videotape recordings; and for the supportive nonverbal behavior, the sum of categories 1 and 2, as reported on the Student Self Appraisal Observation Tally Sheets on the two pre- and two post-videotape recordings. Differences were tested for statistical significance according to Garrett (1958, p. 449). Tables indicating these differences are found in Chapter IV. The degree of significance is noted if the differences were large enough to be significant at the .05 level or beyond.

Part two of the second phase of the treatment utilized a computer program developed by the research department of Tucson School District #1 (Markert). This program employed the statistical technique of analysis of covariance as described in Garrett (1958, p. 295) and then proceeded to calculate the probability by the Veldman's (1967, p. 129) FORTRAN Subroutine PRBF described in FORTRAN Programming for the Behavioral Sciences. Using this program the significance of differences was determined between the means of the final experimental data on the posttest, Self Concept As A Learner Scale, for each treatment group after taking into account and adjusting differences for the groups in grade level, intelligence as reported by stanine scores, and scores on the pretest, Self Concept As A Learner Scale.

Tables indicating the between group differences are found in Chapter IV. The degree of significance is noted if the between group differences were large enough to be significant at the .05 level or beyond (Garrett 1958, p. 449).

## CHAPTER IV

### ANALYSIS OF DATA

This chapter is divided into two major sections which present an analysis of data relative to the hypotheses proposed in Chapter I. Section 1 examines the data used to test Hypotheses One through Three. Section 2 examines the data used to test Hypotheses Four through Eight.

#### Findings for Hypotheses One, Two, and Three

Analysis of covariance was the statistical technique employed to test Hypotheses One through Three. This method of treatment was used to determine whether the groups (IA, IB, and II) differed significantly on the results of the self concept posttest. This statistical procedure also determined whether initial differences in the groups were important and, if so, allowed for the differences. The initial differences considered in this study were grade level, scores on the Self Concept As A Learner Scale pretest, and IQ scores reported in stanines. IQ scores, because they were readily available, were used as a precautionary measure and as a check on the makeup of the sample population.

For each null hypothesis the .05 level of significance was selected for rejection. In presenting the data, all reference to significance is for difference at the .05 level of significance, unless otherwise stated.

The results of analysis of covariance for self concept is reported in Table III.

Table III. Analysis of Covariance Comparison of Between-Group Differences on Post-Self Concept As A Learner Scale Test

Group	N	Adjusted Means for Posttest Scores		
		IQ Held Constant	Pre-SCAL Scores Held Constant	Grade Level Held Constant
IA	55	176.74	177.72	177.90
IB	116	177.92	177.91	179.50
II	154	170.20	169.85	168.60
General Means		174.06	174.06	174.06
F		6.73**	10.38**	11.70**
<u>t Test Values for Between Group Differences:</u>				
IA IB		NS	NS	NS
IA II		2.34*	3.19**	3.05**
IB II		3.53**	4.17**	4.56**

\*Significant at < .05 level.

\*\*Significant at < .01 level.

As indicated by Table III, when the initial differences (IQ, pre-SCAL scores, and grade level) were considered, all of the resulting F values were greater than needed for the .01 level of significance. Since differences among groups did exist, t tests for significance between pairs of means were necessary. A t value of 1.97 is needed for significance at the .05 level and a value of 2.59 for significance at the .01 level.

Hypothesis One, presented in Chapter I, reformulated in the null form states students who receive instruction in the analysis of classroom behavior, who view themselves in the classroom situation as recorded on videotape, and who analyze their own behavior on those tapes will not differ significantly in self concept than will those students who receive instruction in the analysis of student behavior, who analyze the behavior of other students but do not have the opportunity to view and analyze their own behavior. According to the results reported in Table III, the null hypothesis is retained.

Hypothesis Two, presented in Chapter I, reformulated in the null form states students who receive instruction in the analysis of classroom behavior, who view themselves in the classroom situation as recorded on videotape, and who analyze their own behavior on those tapes will not differ significantly in self concept than will those students who do not receive instruction in the analysis of student

behavior, who do not analyze the behavior of other students, and who do not have the opportunity to view and analyze their own behavior. According to the results as reported in Table III, the null hypothesis is rejected beyond the .05 level of significance.

Hypothesis Three, presented in Chapter I, reformulated in the null form states students who receive instruction in the analysis of classroom behavior, who analyze the behavior of other students but do not have the opportunity to view and analyze their own behavior will not differ significantly in self concept than will those students who do not receive instruction in the analysis of student behavior, who do not analyze the behavior of other students, and who do not have the opportunity to view and analyze their own behavior. According to the results as reported in Table III, the null hypothesis is rejected beyond the .01 level of significance.

#### Findings for Hypotheses Four, Five, Six, Seven, and Eight

The t test was the statistical technique used to examine the difference existing between correlated means on pre- and post-data collected for testing Hypotheses Four through Eight. The results of the t tests are presented in Tables IV through VI.

Hypothesis Four, presented in Chapter I, reformulated in the null form states students who receive

instruction in the analysis of classroom behavior, who view themselves in the classroom situation as recorded on videotape, and who analyze their own behavior on those tapes will not exhibit significant change in positive verbal behavior. The results of the t test which examines the difference between the correlated means of the pre- and post-positive verbal behavior of students in Group IA are reported in Table IV. A t value of 1.59 is reported, and since a t value of 2.01 is necessary for significance at the .05 level, the null hypothesis is retained.

Table IV. Correlated t Test for Scores Recorded for Supportive Verbal Behavior on Pre- and Post-Videotape Recordings

	Group IA	
	Pre	Post
N	55	55
Mean	1.29	1.73
SD	1.19	2.15
r	.22	
t	1.59 (NS)	

A t value of 2.01 is needed for significance at the .05 level.

Hypothesis Five, presented in Chapter I, reformulated in the null form states students who receive instruction in the analysis of classroom behavior, who view themselves in the classroom situation as recorded on videotape, and who analyze their own behavior on those tapes will not exhibit significant change in positive nonverbal behavior. The results of the t test which examines the difference between the correlated means of pre- and post-positive nonverbal behavior of students in Group IA are reported in Table V. A t value of 3.07 is reported, and since a t value of 2.01 is necessary for significance at the .05 level, the null hypothesis is rejected beyond the .01 level.

Table V. Correlated t Test for Scores Recorded for Supportive Nonverbal Behavior Pre- and Post-Videotape Recordings

	Group IA	
	Pre	Post
N	55	55
Mean	84.93	91.82
SD	20.21	12.97
r	.57	
t	3.07**	

\*\*Significant at < .01 level.

An analysis of the data concerning Hypotheses Six, Seven, and Eight is reported in Table VI. All three hypotheses examine the change in self concept on the pre- and posttest, Self Concept As A Learner Scale, for each treatment group.

Table VI. Correlated t Test for Scores Recorded for the Pre- and Post-Self Concept As A Learner Scale Test

	Group IA		Group IB		Group II	
	Pre	Post	Pre	Post	Pre	Post
N	55	55	116	116	154	154
Mean	171.04	177.95	173.03	179.48	168.82	168.59
SD	15.86	21.92	17.77	19.09	17.08	18.82
r	.46		.62		.63	
t	2.52*		4.30**		.19	

\*Significant at  $< .05$  level (t value of 2.01 is needed for significance at the  $.05$  level).

\*\*Significant at  $< .01$  level.

Hypothesis Six, presented in Chapter I, reformulated in the null form states students who receive instruction in the analysis of classroom behavior, who view themselves in the classroom situation as recorded on videotape, and who analyze their own behavior on those tapes will not exhibit

significant change in self concept. The null hypothesis is rejected beyond the .05 level since a t score of 2.52 was reported.

Hypothesis Seven, presented in Chapter I, reformulated in the null form states students who receive instruction in the analysis of classroom behavior, who analyze the behavior of other students but do not have the opportunity to view and analyze their own behavior will not exhibit significant change in self concept. The null hypothesis is rejected beyond the .01 level since a t value of 4.30 was reported.

Hypothesis Eight, presented in Chapter I, reformulated in the null form states students who do not receive instruction in the analysis of classroom behavior, who do not analyze the behavior of other students, and who do not have the opportunity to view and analyze their own behavior will not exhibit significant change in self concept. The null hypothesis is retained since a t value of .19 which is less than that needed for significance at the .05 level was reported.

## CHAPTER V

### SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

The study was developed to test the effectiveness of two approaches designed to help intermediate grade children use self appraisal as a technique to modify their self concepts and classroom behavior. The study involved 325 students in two elementary schools which serve students living in an average, urban, middle class socioeconomic area. A summary of the experimental procedures and results, conclusions and implications, and recommendations for further study are presented in this chapter.

#### Summary

The students involved in this experiment were randomly assigned to one of three groups: full treatment (Group IA), partial treatment (Group IB), or control (Group II). Treatment consisted of: (1) the viewing of eight videotapes for the purpose of self appraisal for students in Group IA, (2) eighteen, weekly forty minute classroom sessions devoted to the study of the analysis of classroom behavior which concentrated on the study and evaluation of the behavior of others for students in Groups IA and IB, and (3) administration of the test Self Concept As A Learner

Scale to students in Groups IA, IB, and II. The videotapes of classroom behavior exhibited by students in Group IA were analyzed for pre- and post-data. The instrument used for the analysis of student classroom behavior defined two domains of classroom behavior, verbal and nonverbal, each of which was organized into four main categories.

Analysis of covariance was used to test between group significance of difference in self concept on posttest data after taking into account the initial differences of grade level, IQ, and performance on the self concept pre-test. t tests were computed to determine the significance of the difference between the correlated means of the recorded scores for pre- and post-verbal and nonverbal behavior of students in Group IA, and for significance of the difference between the correlated means of pre- and post-self concept test scores for Groups IA, IB, and II. The .05 level of significance was selected for rejecting the null hypotheses.

Hypothesis One stated,

Students who receive instruction in the analysis of classroom behavior, who view themselves in the classroom situation as recorded on videotape, and who analyze their own behavior on those tapes will exhibit greater change in self concept than will those students who receive instruction in the analysis of student behavior, who analyze the behavior of other students but do not have the opportunity to view and analyze their own behavior.

The hypothesis was rejected.

Hypothesis Two stated,

Students who receive instruction in the analysis of classroom behavior, who view themselves in the classroom situation as recorded on videotape, and who analyze their own behavior on those tapes will exhibit greater change in self concept than will those students who do not receive instruction in the analysis of student behavior, who do not analyze the behavior of other students, and who do not have the opportunity to view and analyze their own behavior.

The hypothesis was retained beyond the .05 level of significance.

Hypothesis Three stated,

Students who receive instruction in the analysis of classroom behavior, who analyze the behavior of other students but do not have the opportunity to view and analyze their own behavior will exhibit greater change in self concept than will those students who do not receive instruction in the analysis of student behavior, who do not analyze the behavior of other students, and who do not have the opportunity to view and analyze their own behavior.

The hypothesis was retained beyond the .01 level of significance.

Hypothesis Four stated, "Students who receive instruction in the analysis of classroom behavior, who view themselves in the classroom situation as recorded on videotape, and who analyze their own behavior on those tapes will exhibit significant change in positive verbal behavior."

The hypothesis was rejected.

Hypothesis Five stated, "Students who receive instruction in the analysis of classroom behavior, who view themselves in the classroom situation as recorded on

videotape, and who analyze their own behavior on those tapes will exhibit significant change in positive nonverbal behavior." The hypothesis was retained beyond the .01 level of significance.

Hypothesis Six stated, "Students who receive instruction in the analysis of classroom behavior, who view themselves in the classroom situation as recorded on videotape and who analyze their own behavior on those tapes will exhibit significant change in self concept." The hypothesis was retained.

Hypothesis Seven stated, "Students who receive instruction in the analysis of classroom behavior, who analyze the behavior of other students but do not have the opportunity to view and analyze their own behavior will exhibit significant change in self concept." The hypothesis was retained beyond the .01 level of significance.

Hypothesis Eight stated, "Students who do not receive instruction in the analysis of classroom behavior, who do not analyze the behavior of other students, and who do not have the opportunity to view and analyze their own behavior will not exhibit significant change in self concept." The hypothesis was retained.

## Conclusions and Implications

### Conclusion One

Since no between group significant differences in self concept was determined between the full treatment group (IA) and partial treatment group (IB), Hypothesis One was rejected.

Implication. It would appear that the additional factor of students viewing and evaluating their own behavior did not produce enough impact to cause significant change in self concept. A longer period of exposure to behavior as recorded on videotape might have resulted in significant change.

### Conclusion Two

Since significant between group difference in self concept was determined between the full treatment group (IA) and the control group (II), and also between the partial treatment group (IB) and the control group (II), Hypotheses Two and Three were retained.

Implication. It would seem that from all of the classroom self appraisal activities those which had enough impact to cause significant change in self concept were: (1) the weekly forty minute sessions devoted to the analysis of classroom behavior, and (2) the appraisal or evaluation of the behavior of others.

### Conclusion Three

Since no significant difference was determined from the overall positive verbal behavior observed for students in the full treatment group (IA) Hypothesis Four was rejected.

Implication. It would appear that possibly one of two things might have happened: (1) the training provided and the instrument used to analyze verbal behavior need modification, or (2) the amount of verbal behavior analyzed was too limited due to the classroom situations utilized during the taping sessions. Since these sessions were approximately twenty minute sampling sessions of verbal classroom interaction, it would not be expected that all participants and teacher could be verbal on any one videotape. Perhaps, if the analysis of a larger amount of verbal behavior had been possible, changes might have been significant.

### Conclusion Four

Since significant difference was determined from the overall positive nonverbal behavior observed for students in the full treatment group (IA) Hypothesis Five was retained.

Implication. It may be implied that even though self appraisal instruction was limited to the analysis of nonverbal behavior on eight twenty minute videotapes, and to

the weekly sessions devoted to the analysis of classroom behavior, the nonverbal behavior of students in Group IA was modified as a result of the treatment; therefore, it might be feasible to expect that intermediate grade children can accept the responsibility for change in their own behavior and point that change toward a positive direction. It would seem that additional treatment or modified treatment should result in significant change of student nonverbal behavior for any aspect of nonverbal behavior for which change is desired.

#### Conclusion Five

Since significant difference in self concept was determined between data recorded for the pre- and post-self concept test for the full treatment group (IA) and also for the partial treatment group (IB), Hypotheses Six and Seven were retained.

Implication. It would appear safe to conclude that the change in self concept was a result of the treatment; however, because of Conclusion One, the partial treatment given Group IB was sufficient to produce significant difference. The instruction in the analysis of classroom behavior plus the opportunity to view and analyze the behavior of others produced enough impact to result in significant change in the self concept of the students. The viewing of one's own behavior on videotape may have

been too threatening to produce significant change; however, an explicit implication of the data is that the classroom does lend itself to promoting positive self concepts if students are utilized as the change agents.

#### Conclusion Six

Since no significant difference in self concept was determined between data recorded for the pre- and post-self concept test for the control group (II), Hypothesis Eight was retained.

Implication. It would appear that treatment of some kind is necessary if change in the self concept of students is desired. It would seem that change in self concept, if desired, cannot be left to chance but can happen as a result of planned treatment.

#### Recommendations for Future Study

The contribution of this exploratory study will be determined by the extent to which future research is initiated. The results suggest many research possibilities which may utilize the use of video equipment and the concept of self evaluation for elementary school children. On the basis of the findings of this study the following recommendations appear to be in order.

1. This study should be replicated with modifications which would provide for a more normal classroom situation during the taping sessions. With

additional cameras, all students in the class could be on the videotape. This would eliminate special seating arrangements during taping sessions. The experimental group, randomly selected for self appraisal of behavior as recorded on the tape, could analyze their tapes in private. Provision should be made to instruct all students in the experimental group in the operation of the video playback unit. This arrangement would contribute to the effectiveness of the coding of behavior.

Additional videotaping of the students before the research tapes are obtained could also provide data for analysis that would better describe the student's actual classroom behavior. Weekly taping sessions in between the tapes collected for research would provide additional assurance of a more normal classroom situation during research taping sessions.

An additional factor that might prove worthy of investigation if the study is repeated, would be an indepth look at the correlation existing between pre- and post-verbal behavior data. Since this study indicated a low correlation for pre- and post-verbal behavior of students in the full treatment group, it appears likely that something was happening. Also, a look at the between group

differences of the correlation between pre- and post-self concept data might be revealing.

The element of time might also enhance findings of a future study. A more concentrated application of the treatment over a shorter or longer time period with periodic checks on self concept and behavior change might produce some evidence as to when change takes place.

2. A similar study could be carried out with the research concentrated on student centered classroom situations rather than teacher centered. This type of study would necessitate the development or location of an instrument to describe and categorize the classroom behavior of students as they work independently or in small groups within the school environment.
3. All self appraisal activities used in the total research project were tested with children who were essentially alike. Modifying the program for use with children who are different from those selected in this study or for children living in a different type of socioeconomic area should prove fruitful.
4. The results of the study indicate that intermediate grade children are capable of appraising their behavior and capable of assuming the responsibility for changing their own behavior. It would seem that

inservice programs for teachers, guidance counselors, and administrators directed toward the use of the self appraisal techniques used in this study should help teachers, guidance counselors, and administrators become aware of the possibilities that exist for self evaluation within the school setting and the effect this self appraisal may have on the self concepts of students and in turn on the overall school atmosphere.

## APPENDIX A

### STUDENT CLASSROOM BEHAVIORS

#### Student Self Appraisal

##### Talking

- answering teacher's question
- answering student's question
- asking a question
- offering additional information
- making an irrelevant contribution
- interrupting to make a relevant comment
- interrupting to make an irrelevant comment

##### Listening

- being attentive: looking at the person speaking, thinking about what is being said, etc.
- being inattentive: not looking at the person speaking, daydreaming, etc.
- being disruptive: yawning, fidgeting, talking to those about you about something other than the class subject, etc.

## APPENDIX B

### STUDENT SELF APPRAISAL OBSERVATION SYSTEM

The Student Self Appraisal Observation System was developed to include two aspects of student classroom behavior: (1) student verbal behavior, and (2) student nonverbal behavior. This system describes these two aspects of student behavior during classroom interaction between student and teacher or between students. The Student Self Appraisal Observation System was constructed on the assumption that all student classroom behavior can be classified as either verbal or nonverbal. Videotape recordings of classroom interaction is required for use with the system.

The Student Self Appraisal Observation System provides information to students concerning their own verbal and nonverbal behavior in the classroom setting. Immediately after the videotaping of a classroom situation, the student views the tape and codes his verbal and nonverbal behavior according to the system. The student records his coding on a Student Self Appraisal Tally Sheet. This provides the student with visual feedback concerning his classroom performance. By examining the profile of his behavior as recorded on the tally sheet, the student may become aware of his actual classroom behavior and may wish

to modify that behavior. By this means the student assumes responsibility for change in his behavior.

### Coding Procedures

When coding the tape, the student sits in front of a video playback unit with a Student Self Appraisal Tally Sheet in front of him. As the videotape is replayed, the student marks the appropriate verbal or nonverbal behavior category at ten second intervals. The time interval may be managed by placing in advance a superimposed beep at ten second intervals on the videotape or by recording a beep at ten second intervals on an audio tape to be played during coding sessions.

### Ground Rules

The definitions of the Student Self Appraisal Observation System are adequate for most coding; however, the following ground rules were established in order to maintain a reliable manner in which to take care of possible moments of confusion when coding.

1. Verbal behavior--code the exact words the student speaks on the beep.
2. Nonverbal behavior--code the expression used by the student on the beep.
3. When a student is speaking, if silence should occur at the time of the beep, but the student continues to speak, code the words spoken prior to the silence.

4. If there is indecision as to the proper category, choose the lowest numbered category. (For example, if a child is not sure whether his behavior is receptive[2] or supportive[1], choose supportive[1].)
5. If, at the beep, enough student verbal or nonverbal behavior is not given in order to code, play beyond the beep until enough clues are given to code.

#### Categories and Definitions

- |                   |    |   |
|-------------------|----|---|
| B<br>V E<br>E H   | 1. | <u>Supportive</u> : Student volunteers to answer teacher's question, initiates own thoughts, responds voluntarily to peer talk on the subject, laughs with others.                        |
| R A<br>B V<br>A I | 2. | <u>Receptive</u> : Student agrees verbally with speaker. "I see," "right," "yes," etc., answers when called upon, talking with peers on the subject. (Several at once not to whole class) |
| L O               | 3. | <u>Uninvolved</u> : Talking to neighbor off the subject, singing, whistling, etc.   |
| R                 | 4. | <u>Non-supportive</u> : Deflates others, antagonistic, sarcasm, intentionally distracting others verbally, laughing at speaker.   |
| N<br>O B<br>N E   | 1. | <u>Supportive</u> : Enthusiasm displayed by student through use of body language and voice tone, enthusiastic gesture, hand waving, maintaining eye contact.                              |
| V H               | 2. | <u>Receptive</u> : Facing speaker, but not maintaining eye contact, smiling, raising hand normally.   |
| E A<br>R V        | 3. | <u>Uninvolved</u> : Daydreaming, playing with pencil, etc., tapping on desk, yawning, facing away from speaker.   |

- B I 4. Non-supportive: Body language which displays malice,  
 A O frowns, etc., leaving place of work for  
 L R other parts of the room for purposes  
 other than work, horseplay, resentful  
 looks.

Sample Student Behaviors for the Analysis of  
 Student Classroom Behavior

The following sample behaviors are guidelines to be used in categorizing student classroom behavior.

Verbal

1. Supportive

Teacher: What types of pollution are we experiencing today?

Example

Student: Noise pollution, air pollution, water pollution, people pollution.

Several Students: Laughter because of the expression "people pollution."

2. Receptive

Teacher: Recently, we read an article in the Weekly Reader concerning water pollution. John tell us what you remember about the article.

Example

John: Well, a lot of fish were found dead along a river bank, and it was discovered that they died because a factory downstream was pouring its wastes into the river.

3. Uninvolved

## Example

Joan: (Whispering to Alison during the class discussion on pollution) What is on the menu for lunch today?

4. Non-supportive

Teacher: What type of pollution do you think is most serious today?

## Example

Lynn: Who cares anyway.

## Nonverbal

1. Supportive

Teacher: Are pollution problems just the concerns of the large cities?

## Example

Several students enthusiastically wave their hands in desire to respond to the question.

2. Receptive

## Example

As Deanna answered the question asked by the teacher, John appeared to be listening but was looking down at his desk rather than at Deanna.

3. Uninvolved

## Example

As Deanna answered the question asked by the teacher, Cindy and Tracy were playing a game of Tick Tack Toe.

4. Non-supportive

## Example

As Deanna answered the question asked by the teacher, Kevin ambled over to the reference center and looked up a word in the dictionary.



## APPENDIX C

### RESUME OF STUDENT SELF APPRAISAL CLASSROOM ACTIVITIES

Week of:

1. September 30. The Student Self Appraisal Program was explained to the students. Discussion followed the explanation. The Student Self Appraisal Observation System was introduced during this session.
2. October 7. Students divided into small groups for role playing purposes. Each group devised a skit which illustrated the behavior categories as defined by the Student Self Appraisal Observation System. As each group performed, the rest of the class coded the behaviors illustrated and marked the appropriate category on a tally sheet. For coding purposes, one student sounded a resonator bell or played an audio tape on which superimposed beeps were recorded at ten second intervals. Discussion of the coding results followed.
3. October 14. Students practiced coding the verbal behavior of selected students on one of the three training tapes provided (Video Training Tape #880, 1971; Video Training Tape #1020, 1971; Video Training Tape #1043, 1971). The training tape was stopped at two and four minute intervals at which time discussion of coding took place.
4. October 21. Students practiced coding the nonverbal behavior of fellow classmates. Students coded the behavior as they perceived it to be which was not always in agreement with the actual nonverbal behavior of the selected students. Sessions of this type were carried out during a regular class of the day as decided upon by teacher and students. Students were not always aware that they had been selected as the "coding subjects." All class members had opportunities to be coders.
5. October 28. An extension of the activities started during the week of October 21 was carried out for half of the class time. The Type Script Test was given during the second part of the period.

November 4. First Pre-Taping Session. Nonverbal behavior was coded immediately after taping. Students in Group IA coded themselves; students in Group IB coded a student of their own choice or one selected for them.

November 11. Second Pre-Taping Session. Nonverbal behavior was coded immediately after taping. Students in Group IA coded themselves; students in Group IB coded a student of their own choice or one selected for them.

6. November 18. A ten minute oral review of the observation system took place. Students coded the verbal behavior on the two pre-tapes. Students in Group IA coded themselves; students in Group IB coded a student of their own choice or one selected for them.

November 25. Holiday

7. December 2. The film, Point of View, Part I, prepared by the University of Illinois Laboratory School, was shown. A discussion of the lesson and the student classroom behavior followed (Point of View, 1966-1969).

December 9. Taping Session Three. Nonverbal behavior was coded immediately after taping. Students in Group IA coded themselves; students in Group IB coded a student of their own choice or one selected for them.

8. December 16. The coding of verbal and nonverbal behavior was reviewed through role playing. The verbal behavior on Tape Three was coded. Students in Group IA coded themselves; students in Group IB coded a student of their own choice or one selected for them.

December 23 and 30. Holidays

9. January 6. The activity of the week consisted of a discussion of the following article (Harris 1967).

Do You Act--or React?

I walked with my friend, a Quaker, to the newsstand the other night, and he bought a paper, thanking the newsboy politely. The newsboy didn't even acknowledge it.

"A sullen fellow, isn't he?" I commented.

"Oh, he's that way every night," shrugged my friend.

"Then why do you continue to be so polite to him?" I asked.

"Why not?" inquired my friend. "Why should I let him decide how I'm going to act?"

As I thought about this incident later, it occurred to me that the important word was "act." My friend acts toward people; most of us react toward them. He has a sense of inner balance which is lacking in most of us; he knows who he is, what he stands for, how he should behave. He refuses to return incivility for incivility, because then he would no longer be in command of his own conduct.

Nobody is unhappier than the perpetual reactor. His center of emotional gravity is not rooted within himself, where it belongs, but in the world outside him. His temperature is always being raised or lowered by the social climate around him, and he is a mere creature at the mercy of these elements.

Praise gives him a feeling of euphoria, which is false, because it does not last and it does not come from self-approval. Criticism depresses him more than it should, because it confirms his own secretly shaken opinion of himself. Snubs hurt him, and the merest suspicion of unpopularity in any quarter rouses him to bitterness.

Serenity cannot be achieved until we become the masters of our own actions and attitudes. To let another determine whether we shall be rude or gracious, elated or depressed, is to relinquish control over our own personalities, which is ultimately all we possess. The only true possession is self-possession.

January 13. Taping Session Four. Nonverbal behavior was coded immediately after taping. Students in Group IA coded themselves; students in Group IB coded a student of their own choice or one selected for them.

10. January 20. The verbal behavior on Tape Four was coded. Students in Group IA coded themselves; students in Group IB coded a student of their own choice or one selected for them. The Type Script Test was given again.

11. January 27. The film, Point of View, Part II, prepared by the University of Illinois Laboratory School was shown. A discussion of the lesson and the student classroom behavior followed.
12. February 3. Mr. Joe Thurston, the school social worker, carried on a discussion with each class on the topic, "How We Affect Others."
13. February 10. The activity of the week consisted of the completion and discussion of the following exercise.

Student Self Appraisal Test

Are you aware of how you react in a test situation?  
Complete the following.

1. Read everything before doing anything.
2. Put your name in the upper right hand corner of this page.
3. Circle the page number of this sheet.
4. Draw five small squares in the upper left hand corner of this page.
5. Put an X in each square.
6. Put a circle around each square.
7. Sign your name at the bottom of this paper.
8. Put a circle around number seven.
9. After the title on this page write . . . "yes, yes, yes."
10. Put an X in the lower left hand corner of this page.
11. Draw a triangle around the X you just made.
12. Where there is room on this sheet, multiply 703 x 66.
13. Draw a rectangle around the word paper in number seven.
14. LOUDLY call out your first name when you get to this point.

15. If you think you have followed directions carefully to this point in the test call out, "I have."
16. In the margin of this page, add 8950 and 9805.
17. Put a circle around your answer, then put a square around the circle.
18. Count out in a normal speaking voice from one to ten backwards.
19. Punch three small holes in the top of this paper with your pencil.
20. Underline all even numbers in this list.
21. If you are the first person near you to get this far, clearly say, "I AM THE FIRST PERSON TO THIS POINT AND I AM A LEADER IN FOLLOWING DIRECTIONS."
22. Say out loud, "I AM NEARLY FINISHED, AND I HAVE FOLLOWED DIRECTIONS."
23. Now that you have finished reading carefully, do only sentences one and two.

February 17. Taping Session Five. Nonverbal behavior was coded immediately after taping. Students in Group IA coded themselves; students in Group IB coded a student of their own choice or one selected for them.

February 24. Holiday

14. March 2. Mr. Joe Thurston, the school social worker, carried on a discussion with each class on the topic, "Self Discipline."
15. March 9. The coding of nonverbal and verbal behavior was practiced using either Part I or Part II of the film, Point of View. Discussion of the coded behavior followed.

March 16. Taping Session Six. Verbal and Nonverbal behavior was coded immediately after taping. The students in Group IA coded themselves; students in Group IB coded a student of their own choice or one selected for them.

- 16. March 23. Mr. Joe Thurston, the school social worker, carried on a discussion with each class on the topic, "Discipline or Punishment."
- 17. March 30. Role playing situations designed to force students to consider the ground rules when coding behavior as defined by the Student Self Appraisal Observation System. The procedure for the role playing was the same as that used during the earlier role playing sessions.
- 18. April 18. Mr. Joe Thurston, the school social worker, carried on a discussion with each class on the topic, "Being Honest with Yourself."

April 13. First Post-Taping Session. Nonverbal and verbal behavior was coded immediately after taping. Students in Group IA coded themselves; students in Group IB coded a student of their own choice or one selected for them.

April 20. Second Post-Taping Session. Nonverbal and verbal behavior was coded immediately after taping. Students in Group IA coded themselves; students in Group IB coded a student of their own choice or one selected for them.

April 27. Evaluation by the students. An oral discussion concerning the program by students in Groups IA and IB was carried out. Written completion of the following form by students in Group IA was asked.

Date \_\_\_\_\_ Name or # \_\_\_\_\_

Student Self Appraisal

BEHAVIORS I LIKED ABOUT ME

BEHAVIORS I DISLIKED ABOUT ME

WHAT I CAN DO TO CHANGE THE BEHAVIOR I DISLIKED

FORCES OVER WHICH I HAVE NO CONTROL THAT CAN CHANGE THE BEHAVIOR I DISLIKED

## APPENDIX D

### RESUME OF BIWEEKLY TEACHER INSERVICE SESSIONS

Biweekly inservice meetings were held for the teachers of the classes involved in the experimental study. Times were arranged at the conveniences of those involved. The inservice meetings consisted of the following activities:

1. Training in the use of the Student Self Appraisal Observation System.
2. Preview of materials to be used during the forthcoming student self appraisal classroom sessions.\*
3. Preview of activities to be used during the forthcoming student self appraisal classroom sessions.\*
4. Suggestions for procedures to be used with the materials and activities for purposes of keeping as much consistency as possible among the various classes.
5. Constant evaluation of procedures used through discussion concerning the happenings of the previous weeks.

\*Activities and materials are described in Appendix C.

APPENDIX E

VIDEOTAPING SCHEDULE

Memorandum

October 4, 1971

TO: Mrs. Garner  
Hudlow Elementary  
School

Copy to: Mrs. Bernice Harkrader  
Principal  
Hudlow Elementary  
School

FROM: Glen Broyles  
TV Coordinator

Gorden Tench and  
Glen Barnes  
Video Cameramen

Gorden Tench and I are firming dates for recording projects. We have set the following dates for your recording:

Thursday November 4, 1971

Thursday November 11, 1971

Thursday December 9, 1971

Thursday January 13, 1972

Thursday February 17, 1972

Thursday March 16, 1972

Thursday April 13, 1972

Thursday April 20, 1972

If there is any conflict, please advise us at once so we can arrange other recording times.

Thank you very much.

APPENDIX F

SELF CONCEPT AS A LEARNER SCALE TEST.

Developed by the University  
of Maryland and the Bureau  
of Educational Research and  
Field Services

SCHOOL \_\_\_\_\_

GRADE \_\_\_\_\_

DATE \_\_\_\_\_

Self-Concept As A Learner Scale\*  
Copyright © 1967, Walter B. Waetjen

Instructions: These statements are to help you describe yourself. Please answer them as if you were describing yourself to yourself. Do not omit any items. Read each statement carefully; then select one of the following answers; and next record the number that represents that particular answer in the blank space at the end of that statement.

Completely True	Mostly True	Partly True and Partly False	Mostly False	Completely False
5	4	3	2	1

Remember you are not trying to describe yourself as others see you, but only as you see yourself.

1. I am usually eager to go to class. \_\_\_\_\_
2. I never ask teachers to explain something again. \_\_\_\_\_
3. I try to change when I know I'm doing things wrong. \_\_\_\_\_
4. I wish I didn't give up as easily as I do. \_\_\_\_\_
5. I get the required work done, but I don't do extra work. \_\_\_\_\_
6. I would rather do well than poorly in school. \_\_\_\_\_

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7. Once in a while I put off until tomorrow what I should do today. \_\_\_\_\_
8. I become discouraged easily in school. \_\_\_\_\_
9. I give up easily in school work. \_\_\_\_\_
10. I do things without being told several times. \_\_\_\_\_
11. I am satisfied to be just what I am. \_\_\_\_\_
12. I like school jobs which give me responsibility. \_\_\_\_\_
13. I like to start work on new things. \_\_\_\_\_
14. I cannot remember directions for doing things. \_\_\_\_\_
15. I do well when I work alone. \_\_\_\_\_
16. I am satisfied with my ability to speak before the class. \_\_\_\_\_
17. I am able to get my work done on time. \_\_\_\_\_
18. I have difficulty deciding what to study. \_\_\_\_\_
19. I sometimes use unfair means to do my school work. \_\_\_\_\_
20. I do my share of school work. \_\_\_\_\_
21. I give up if I don't understand something. \_\_\_\_\_
22. I try to be careful about my work. . \_\_\_\_\_
23. I get tense when I'm called on in class. \_\_\_\_\_
24. I make mistakes because I don't listen. \_\_\_\_\_
25. I do things without thinking. \_\_\_\_\_
26. I have trouble deciding what is right. \_\_\_\_\_
27. I find it hard to remember things. \_\_\_\_\_
28. I think clearly about school work. \_\_\_\_\_
29. I can't express my ideas in writing very well. \_\_\_\_\_

30. I can tell the difference between important and unimportant things in a lesson. \_\_\_\_\_
31. I do poorly in tests and homework. \_\_\_\_\_
32. I change my mind a lot. \_\_\_\_\_
33. I feel good about my school work. \_\_\_\_\_
34. I do not understand what is going on in class. \_\_\_\_\_
35. I am as smart as I want to be. \_\_\_\_\_
36. I solve problems quite easily. \_\_\_\_\_
37. I can figure things out for myself. \_\_\_\_\_
38. Good grades come easily to me. \_\_\_\_\_
39. I know the answer before the rest of the class. \_\_\_\_\_
40. I can usually see the sense in other's suggestions. \_\_\_\_\_
41. I find it easy to get along with classmates. \_\_\_\_\_
42. I enjoy being part of the class without taking the lead. \_\_\_\_\_
43. I take an active part in group projects and activities. \_\_\_\_\_
44. I try to play fair with my classmates. \_\_\_\_\_
45. I try to understand the other fellow's point of view. \_\_\_\_\_
46. I am an important person to my classmates. \_\_\_\_\_
47. My classmates have no confidence in me. \_\_\_\_\_
48. I am not interested in what my classmates do. \_\_\_\_\_
49. I find it hard to talk with classmates. \_\_\_\_\_
50. I feel left out of things in class. \_\_\_\_\_

## APPENDIX G

### GUIDELINES FOR TAPING SESSIONS

#### Teaching Situations Suitable for Taping

The classroom situation should be as normal as possible; however, since student self appraisal is meant to give the student an opportunity to view and analyze his behavior with the teacher and other students, the taping of teaching situations which allow interaction to occur are most necessary. Group discussions, demonstrations, introduction of new material, etc., would be appropriate classroom situations for videotaping; whereas, activities such as viewing films, filmstrips, taking written tests, etc., would not be appropriate. For a reliable comparison of the pre- and post-tapes, the teacher should use the same type of a teaching situation for the pre-tapes as he does for the post-tapes. A record sheet for pre- and post-tapes will be provided on the appropriate dates.

Record Sheet for Pre- and Post-Tapes

Teacher's Name \_\_\_\_\_

Grade \_\_\_\_\_

Date \_\_\_\_\_

Time \_\_\_\_\_

1. Subject \_\_\_\_\_ Tape 1. \_\_\_\_\_ 2. \_\_\_\_\_

2. Teaching Situation

\_\_\_\_\_ Class Discussion

\_\_\_\_\_ Introduction of New Material

\_\_\_\_\_ Oral Quiz

\_\_\_\_\_ Review

\_\_\_\_\_ Other \_\_\_\_\_

3. Children on Tape--Use code numbers only

1. \_\_\_\_\_

6. \_\_\_\_\_

2. \_\_\_\_\_

7. \_\_\_\_\_

3. \_\_\_\_\_

8. \_\_\_\_\_

4. \_\_\_\_\_

9. \_\_\_\_\_

5. \_\_\_\_\_

10. \_\_\_\_\_

## APPENDIX H

### ESTABLISHMENT OF CODER AGREEMENT

\_\_\_\_\_ Student #

#### Student Self Appraisal Typescript

Please read the following statements made by students during a social studies class discussion concerning pollution. Classify the statements according to the Student Self Appraisal Verbal Categories. Write the number of the category for each statement on the blank spaces.

\_\_\_\_\_ 1. "Air pollution is certainly a very serious problem today. We might be without enough good air to breathe before we realize it," said Mark after volunteering to respond to the teacher's question.

\_\_\_\_\_ 2. "I believe I understand what Mark is saying about pollution, and I certainly feel he is right."

\_\_\_\_\_ 3. (Whispering) "Lisa can you come over after school?"

\_\_\_\_\_ 4. "Oh, I think Mark is stupid for saying that. I believe we'll always have enough air to breathe," said John after wildly raising his hand to obtain permission to speak.

\_\_\_\_\_ 5. "I believe we can always have enough air to breathe if we want to. A country that can figure out how to send men to the moon can solve this air pollution problem," remarked Joan after volunteering to answer.

\_\_\_\_\_ 6. "I feel Joan has a good point there," Jamey shouted without asking for permission to speak.

\_\_\_\_\_ 7. "Sure seems like it," remarked Jorge to Jamey.

\_\_\_\_\_ 8. (Low talking) "How long till lunch?"

\_\_\_\_\_ 9. "We'll never solve this problem," stated Jim when called upon.

\_\_\_\_\_ 10. "Ha, ha, what a defeatist attitude you have," laughed Eddie.

Please read the following descriptions of students as they sat in class during this social studies discussion. Classify the descriptions according to the Student Self Appraisal Nonverbal Categories. Write the number of the category for each description on the blank spaces.

\_\_\_\_ 1. While Mark was telling how he felt about pollution, Anne was mentally humming a new tune she heard on KAKL the night before.

\_\_\_\_ 2. During the discussion Leigh was gazing out the window at the smog thinking how heavy it was today.

\_\_\_\_ 3. All the time Joan talked, Alison, Andy, and Mike were nodding in agreement although they were not looking at Joan.

\_\_\_\_ 4. During the discussion Richard left his seat to return an encyclopedia to the research center of the room.

\_\_\_\_ 5. After the teacher's initial question, several students showed their desire to respond by waving their hands very enthusiastically.

\_\_\_\_ 6. As John spoke, Bill frowned at him in such a manner that he may as well have said, "You're all wrong."

\_\_\_\_ 7. Several students raised their hands indicating a desire to respond to Joan's idea.

\_\_\_\_ 8. The class looked at the teacher as he summarized the ideas presented by various members of the class.

\_\_\_\_ 9. All during the discussion Jane was busily reading the school newspaper.

\_\_\_\_ 10. John spoke with great expression and enthusiasm as he let his ideas spill out.

Answers for Typescript

## Answers for verbal categories:

1. 1
2. 2
3. 3
4. 4 or 1 (coded as 1 according to the ground rules)
5. 1
6. 2
7. 2
8. 3
9. 1 or 2 (coded as 1 since Jim gives his own idea)
10. 4

## Answers for nonverbal categories:

1. 3
2. 2 or 3 (coded as 2 according to the ground rules)
3. 2
4. 4
5. 1
6. 4
7. 2
8. 2
9. 3
10. 1

APPENDIX I

CODER AGREEMENT FOR TYPESCRIPT

Experimental Group IA (55 students, 550 verbal choices, 550 nonverbal choices)

Verbal Items	October			January		
	Agree- ment	Disagree- ment	% of Agree- ment	Agree- ment	Disagree- ment	% of Agree- ment
1	54	1	98	53	2	96
2	53	2	96	54	1	98
3	55	0	100	54	1	98
4	40	15	73	44	11	80
5	55	0	100	55	0	100
6	44	11	80	43	12	78
7	46	9	84	45	10	82
8	55	0	100	54	1	98
9	32	23	58	36	19	66
10	<u>55</u>	<u>0</u>	<u>100</u>	<u>55</u>	<u>0</u>	<u>100</u>
Total	489	61	89	493	57	90
Non-Verbal Items						
1	53	2	96	54	1	98
2	31	24	57	35	20	64
3	53	2	96	51	4	93
4	55	0	100	55	0	100
5	50	5	90	51	4	93
6	52	3	95	53	2	96
7	50	5	90	51	4	93
8	54	1	98	54	1	98
9	55	0	100	55	0	100
10	<u>53</u>	<u>2</u>	<u>96</u>	<u>52</u>	<u>3</u>	<u>95</u>
Total	506	44	92	511	39	93

APPENDIX J

CROSSCHECK OF CODING OF VERBAL BEHAVIOR

Coder	Verbal Categories				
	Support- ive	Recep- tive	Not Involved	Non- Support- ive	Agree- ment
<u>Pre-Tapes</u>					
4th Grade Student #6 Experimenter	2% 2%	0 0	0 0	0 0	100%
4th Grade Student #17 Experimenter	1% 1%	2% 2%	0 0	0 0	100%
5th Grade Student #23 Experimenter	0 0	0 0	0 0	0 0	100%
5th Grade Student #37 Experimenter	2% 2%	0 0	0 0	0 0	100%
6th Grade Student #50 Experimenter	0 0	0 0	1% 1%	1% 1%	100%
6th Grade Student #55 Experimenter	0 0	0 0	1% 1%	0 0	100%
<u>Post-Tapes</u>					
4th Grade Student #3 Experimenter	3% 2%	0 1%	0 0	0 0	91%
4th Grade Student #15 Experimenter	0 0	0 0	0 0	0 0	100%

## Verbal Categories

Coder	Support- ive	Recep- tive	Not Involved	Non- Support- ive	Agree- ment
5th Grade Student #20 Experimenter	0 0	0 0	0 0	0 0	100%
5th Grade Student #36 Experimenter	2% 2%	0 0	0 0	0 0	100%
6th Grade Student #42 Experimenter	1% 1%	0 0	0 0	0 0	100%
6th Grade Student #47 Experimenter	4% 4%	0 0	0 0	0 0	100%

## APPENDIX K

### STUDENT SELF APPRAISAL TAPING INFORMATION

#### Schedule (Times are Approximate)

9:00		11:00	
9:30	Rooms 8, 9, 10	1:15	Annex
10:00		1:45	

#### Tips on Seating Arrangement of the 10 Students

Space--about 4 or 5 desks across and 2 or 3 deep. Try to alternate seats so students are not sitting directly in front of each other.

Students should all be facing in the same general direction.

If it is possible for the students to be facing the windows directly or diagonally, this is best.

Identifying the desks of the 10 students by means of a label or piece of construction paper taped to the front of the desk will make it easier for the technicians.

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Fill out a record sheet for each pre- and post-research tape and attach it to the completed coding sheets of the 10 students on tape. Include the code number for each child. Please put them in my box as you finish them.

Students are available to operate the playback unit for you if you wish. There are three tapes available for additional coding practice. Please don't hesitate to ask for help at any time. Thank you.

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