

AN ABSTRACT OF THE THESIS OF
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TITLE: THE IMMEDIATE EFFECT OF THE INSIDE/OUT HEALTH FILM
PROGRAM UPON SELF-CONCEPT DEVELOPMENT OF FIFTH-
GRADE STUDENTS *Redacted for Privacy*

Abstract Approved: _____

Dr. Arthur Koski

The purpose of this study was to determine the effect of the "Inside/Out" Health Film Series on self-concept change as measured by the scores on the "Self Appraisal Inventory--Intermediate Level". This study also investigated whether self-concept is a unidimensional or multidimensional construct. A sample N of 410 fifth-grade students was selected, with 205 Ss in an experimental group and 205 Ss in a control group. The experimental group was involved in the "Inside/Out" program over a period of fifteen weeks, and viewed nineteen of the thirty-film production. The "Inside/Out" program emphasizes an affective approach in dealing with social, emotional, and physical problems of eight-to-ten-year-olds.

The results of the treatment showed that there were no significant differences between the experimental and control group's mean scores on self-concept, as measured by the Self Appraisal Inventory--Intermediate Level. The researcher could only conclude that the analysis did not detect

any treatment differences in regard to the usefulness of the "Inside/Out" series in effecting positive self-concept change. It was also found that mean gain scores did not vary significantly on self-concept subscores, which gives support to the unidimensional self-concept construct.

The Immediate Effect of the Inside/Out Health Film
Program Upon Self-Concept Development of
Fifth-Grade Students

by

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The Immediate Effect of the Inside/Out Health Film
Program Upon Self-Concept Development
of Fifth-Grade Students

I. INTRODUCTION AND STATEMENT OF PROBLEM

The American Education system has traditionally used a cognitive-oriented curriculum in the nation's classrooms. This cognitive approach alone may not be the most desirable education approach. Many professional educators are now recognizing that a combination of the cognitive and affective domains would be a more desirable educational approach.

An "Ego Development Guide for Primary Teachers" concluded:

In facing the complex task of guiding young people in their total development, educators have come to understand that the psychosocial aspects of human development cannot be separated from the intellectual aspects of this development. The two, in fact, are so inextricably related that the neglect of one usually retards the growth of the other. (26, p. 1)

Dinkmeyer views the teacher as an effective facilitator of learning when he combines the affective and cognitive domains in education. He proposes that:

...the number one priority ... is concern for the emerging self.... If one is to assist another to learn and change, there must be access to the affective and cognitive domains. Feelings, values and attitudes must be openly revealed and considered. The dichotomy between one's emotions and intellect, often present in learning, cannot be permitted. (24, p. 618)

Many other educators are speaking out for more affective education.

One of the reasons that has caused this recognition of the importance of the affective domain in education is the development of the important, even central role, given to self-concept in personality development.

Self-concept is considered to be a key to human behavior; a change in self-concept will result in behavior change. A negative self-concept produces failure, and a positive self-concept makes success possible.

An individual makes a self-assessment in relation to others, using a collective image of society as a reference point to evaluate himself. The individual makes a qualitative judgement, consciously or unconsciously, as to who and what he is. The conclusion he comes to is his self-concept. Self-concept is, therefore, the image one has of himself.

Self-concept is an attitude so it must be learned. Acceptance or rejection is an important cue in self-concept development. Other important cues come from an individual's family, his neighborhood, the society, and the school.

Schools have done very little in attempting to change unsatisfactory self-concepts of students. Few compensatory programs give any information on specific techniques and materials teachers can employ, or activities pupils can do, to improve self-concept. It has been suggested that taking steps to improve the self-concepts of students will appreciably affect their personal experience as well as their total education.

How important is the self-concept? Many research findings support the conclusion that self-concept is closely related to all behavior. Survant concludes:

No students of human development will deny the importance of helping a child build a positive self-concept. It's relation to personality development, academic success, and

mental well-being has been demonstrated time and time again. And as teachers we know that helping children see themselves in a positive light is one of our most important jobs. (75, p. 94)

Combs agrees with Survant as he recognizes that "the most important single factor affecting behavior is the self-concept" (16, p. 39). Combs then goes on to put more emphasis here as he states "In fact the self-concept is even more important to its owner than the body in which it exists" (16, p. 40). The great majority of research studies agree with Survant and Combs.

Research on self-concept and the school-age child has recorded a host of findings. Self-concept is shown to be related to acceptable school adjustment and achievement, behavior and learning, and overall succeeding or failing (19). Educators must consciously and deliberately work at the business of personality development and personality change.

This point brings up the ethical questions involved in whether educators should treat and attempt to change self-concepts. Do educators have the right to try to influence and control student behavior? These are deep, philosophical considerations for all the behavioral sciences, which are rapidly developing capacities to predict and control behavior. While the writer does not fantasize his achieving a final resolution of these questions, some clarifying points on these issues can be made.

A program designed to control human behavior is patterned after:

- (1) a choice of specific or general goals, (2) discovery of the conditions or methods to reach the goals, (3) some teacher or group obtains the power to establish the conditions or use the discovered methods, (4) exposure of the

students to the prescribed conditions leading to the desired behavior. A major flaw that Rogers sees in this scientific control of human behavior is the "denial, misunderstanding, or gross underestimation of the place of ends, goals or values in their relationship to science" (44, p. 107). Rogers stresses the idea that

... this subjective value choice which brings the scientific endeavor into being must always be outside of that endeavor and can never become a part of the science involved in that endeavor. (44, p. 107)

The purpose or value is subjectively chosen by persons, and the selection of these values can focus on "fluid elements of process," (44, p. 111) not on end-states of being. Roger's concept of the control of human behavior is as follows:

1) It is possible for us to choose to value man as a self-actualizing process of becoming; to value creativity and the process by which knowledge becomes self-transcending.

2) We can proceed, by the methods of science, to discover the conditions which necessarily precede these processes and, through continuing experimentation, to discover better means of achieving these purposes.

3) It is possible for individuals or groups to set these conditions, with a minimum of power of control. According to present knowledge, the only authority necessary is the authority to establish certain qualities of interpersonal relationship.

4) Exposed to these conditions, present knowledge suggests that individuals become more self-responsible, make progress in self-actualization, become more flexible, and become more creatively adaptive.

5) Thus such an initial choice would inaugurate the beginnings of a social system or subsystem in which values, knowledge, adaptive skills, and even the concept of science would be continually changing and self-transcending. The emphasis would be upon man as a process of becoming. (44, p. 113)

The writer finds the ethics of educators dealing with student self-concept development and change in the above framework very acceptable. A constant review of self-concept programs to ascertain whether they fit into this conceptualization would be important. The main goal of the educator, then, would be to better enable the student to view himself realistically or to sharpen his understanding of the factors which enter into the complex self-concept.

A presumption is made that self-concept is a determining factor in the success or failure of a student. Therefore, two important areas of investigation are necessary: (1) What variables are involved in a treatment of self-concept. (2) What type of affective educational treatment will positively affect self-concept.

At the present time self-concept is the subject of an enormous amount of theory and research. Gordon and Gergen note the great number of variables that have been examined in relationship to the self.

The self has figured prominently in theory and research on social control, economic behavior, social deviance, personal aspirations, psychological development, interpersonal attraction, social influence, psychopathology and psychotherapy, to name but a few. (36, p. 1)

Gordon and Gergen, after an exhaustive review of the literature on self-concept, categorize the four primary theoretical issues of self-concept as: (1) the self as fact versus construct, (2) the self as subject versus object, (3) the self as structure versus process, and (4) the self as single versus multiple (36, p. 3).

This study concerned itself with the latter theoretical issue. One group of self-concept theorists looks at self-concepts as being plural, multidimensional and not always uniformly positive or negative. Another group of self-concept theorists views self-concept as a singular or global construct. There are implications here for education.

Should education treat the development of positive student self-concept as a singular or multidimensional construct? If the singular self-concept theory is accepted, a general non-specific treatment would likely be generated. If the multidimensional self-concept theory is accepted, then a specific analysis and treatment program would be preferable. Direct and inferred self-concept testing procedures could tell educators wherein the individual student may have a poor self-concept dimension. A specific treatment program could be devised to positively increase that specific dimension of the student's self-concept. Educators could learn which dimensions of the students' self-concepts the school experience could affect positively. They could also learn which self-concept dimensions were not being positively affected by the school experience and devise intervening processes to increase the positive growth of that dimension. This may call for outside help, such as the family.

Educational research is called for on this theoretical consideration. A study to determine if an educational program would have only a general effect on student self-concept, or have varying effects on different major dimensions of the self-concept would help educators in designing their curriculum to the greatest advantage in positive student self-concept development.

It is important here to define what positive self-concept is. Generally it is to feel good (as contrasted with bad or negative) about one's characteristics and abilities, and about the self in relation to others and the environment. Specifically in this study a positive self-concept would be a score in the upper half of the scoring range of the Self Appraisal Inventory--Intermediate Level. The self-concept would become more positive as it approached the top score of 77 on the Inventory.

If a student has a negative to average self-concept, can it be changed or improved in a positive direction? The literature indicates that self-concept is ever changing and that "more significant" persons (e.g. teacher, peer, or parent) can influence this change. Combs suggests it is probable that throughout the lifetime of an individual, change is constantly occurring in the self-concept as he perceives the reactions of others to himself (16).

Gordon believes that "although the family usually reinforces the culture's ideas, the school situation plays its part in modifying a child's self-esteem" (36, p. 1024).

Murphy believes that self-concept is ever changing and dictates one's reactions to outside social pressures. Other authorities of self-concept state that self is the emotional and social structure within a person and self-concept is open to change by the varying stimuli throughout life (59).

These researchers support the idea that self-concept can be influenced to become more positive or negative. Therefore, it would appear that schools can favorably alter self-concept through well designed programs which utilize

the known self-concept factors. Self-concept seems to change and significant people, including teachers, can influence the changes.

Beatty investigated research on Prescott's idea that feelings and emotions play a critical role in blocking or enhancing learning. Beatty concluded that "subsequent research has continued to support his findings, and yet, the area of feelings and emotion is neglected almost totally in our current educational process" (6, p. 86). Beatty goes on to say "learning must involve a change in self if it is to persist" (6, p. 88).

The crucial importance of a positive self-concept in the healthy, functioning individual has been established. It has been shown that self-concept is amenable to change. It has been suggested that affective domain materials included in the school curriculum may aid in developing positive self-concepts. Many professional educators are recognizing this neglected need in the school curriculum and are asking for the development of materials to aid them in developing the affective domain of education. National Instructional Television (N. I. T.) has responded by developing the "Inside/Out" Health Film Series.

"Inside/Out" is an affective Health Education program designed to help eight-to-ten year olds achieve and maintain well-being. It is a series of thirty 15-minute color films and outlined discussions and activities on all aspects of health. "Inside/Out" emphasizes communication skills, involvement and interacting, valuing and decision-making, and involves children emotionally. N. I. T. describes the "Inside/Out" program as a:

... series of programs and ... lessons which ... take into account the vital elements that form the wholeness of the self, both inside and out. This approach to health education enables the child to consider, to feel, and to act upon the choices that bear on the quality and scope of his own life. (46, p. 8)

Evaluation of the "Inside/Out" program by National Instructional Television has mainly involved a Teacher's Guide Survey and a subjective classroom observation study (66a). There is a great need for research to identify the nature of the effect of the "Inside/Out" program on the self-concepts of intermediate-age children.

Statement of the Problem

The purpose of the study was to determine the effects of the "Inside/Out" Health Film series on the self-concepts of intermediate-age children (fifth grade). The study was also designed to investigate whether self-concept is a singular or global construct; or a plural, multidimensional construct which is not always uniformly positive or negative.

Objectives

The major objectives of this study included: (1) the selection of a criterion instrument to assess self-concept changes and to give subscales which would measure self-concept as a singular or multidimensional construct; (2) the investigation of the effects on self-concept changes by the "Inside/Out" program.

Hypotheses

This study was specifically undertaken to investigate whether or not selected classes of fifth-grade students would show a greater positive change in their self-concepts if they had been subjected to the "Inside/Out" program than a control group who had not. The control group received no special attention other than the pre-and posttesting. The second purpose of the study was to investigate whether the "Inside/Out" program had a consistent, overall effect on self-concept with an even distribution of effect among family, peer, scholastic and general self-concept dimensions; or an inconsistent effect with an uneven distribution of effect among family, peer, scholastic, and general self-concept dimensions.

The first effect would give support to the singular self-concept theory, and the second effect would give support to the multidimensional self-concept theory. This investigation, therefore, will add evidence to the theoretical issue of self-concept being a singular or multidimensional construct.

The dependent variable in this study will be self-concept. The independent variable will be the "Inside/Out" program. Extraneous variables will be controlled by using a randomized control group pretest-posttest design. The null hypotheses formulated to test these purposes are as follows:

1. There will be no significant difference between the experimental and control group's mean gain scores on self-concept as measured by the Self Appraisal Inventory--Intermediate Level.

2. There will be no significant differences between the subscores (general, family, peer and scholastic self-concept) as measured by the Self Appraisal Inventory--Intermediate Level.

Definition of Terms

The results of this study can be interpreted best by an operational definition of the following terms.

1. Affective Domain: Webster defines Affective as, "of or arising from affects or feelings" (83, p. 23). This includes the emotional level of functioning and the whole range of human emotions and feelings such as sadness, happiness, joy, fear, love and hate. The affective domain involves introspection, or considering, feeling and wondering. This is in contrast to the cognitive domain, which involves knowledge and the process of knowing and intellectual abilities and skills.

2. "Inside/Out": This is an affective, personal involvement health education program designed to help eight-to-ten-year-olds achieve and maintain well-being. The programs and related materials were created, under the supervision of the National Instructional Television Center, through the resources of a consortium of 33 educational and broadcasting agencies with support from Exxon Corporation. The complete series came out in 1973 and is being used in school districts across the U. S. A. and many parts of Canada. The program itself consists of a series of thirty 15-minute color films and follow-up discussions which deal with day-to-day problems and emotions of

children from their point of view. The "Inside/Out" guide defines the program as:

The series of programs and the lessons which follow take into account the vital elements that form the wholeness of the self, both inside and out. This approach to health education enables the child to consider, to feel and to act upon the choices that bear on the quality and scope of his own life.
(46, p. 8)

The material in the Guide, which is part of the program, consists of the following:

- a. A synopsis of the individual program
- b. The purpose or major intent of each program
- c. A "things to consider" section which consists of questions worded for class discussion. The words "how" and "why", "explain", "discuss" are used in phrasing the questions as a means of promoting discussion.
- d. An "activities" section which suggests further involvement.

3. Self-Concept: In this study the definition of self-concept by Rogers served as the operational definition:

The self-concept or self-structure may be thought of as an organized configuration of perceptions of the self which are admissible to awareness. It is composed of such elements as perceptions of one's characteristics and abilities; the percepts and concepts of the self in relation to others and the environment; the value qualities which are perceived as associated with the experiences and objects; and goals and ideals which are perceived as having positive or negative valence. (68, p. 18)

More specifically, self-concept as used in this study represents how a child feels about four aspects of his self-concept (family, peer, scholastic and general), as measured by the Self Appraisal Inventory--Intermediate Level. The Inventory is described in more detail under "Procedure for Collecting of Data."

Need For the Study

The crucial importance of a positive self-concept in the healthy functioning individual has been established. A child must be given a chance to develop a positive self-concept by achieving and experiencing success rather than by meeting the expectation of educators who may be teaching only cognitive skills. Miller states the following: "For those children not yet highly motivated toward an academic program, the [development and] preservation of a positive self-concept is more important than the specifics learned" (58, p. 143).

Educators must consciously and deliberately work at the business of personality development and personality change. Frymier suggests that, "if educators are seriously concerned about the possibilities of excellence in education, they must assume the responsibility of improving self-concepts" (32, pp. 37-39).

An attempt has been made to improve self-concepts of intermediate-age children (grades four through six) through the use of the "Inside/Out" Health Film Series. There was a need to assess this special affective health

education film series and probe more deeply into the effectiveness of films as an instrument to bring about change in the students' self-concept. If this study revealed a significant change in self-concept for the group exposed to the "Inside/Out" series, a very important addition would be added to educational knowledge and affective education. An unlimited number of students could be exposed to the "Inside/Out" series that might be used to bring about positive changes in self-concept and, consequently, school achievement.

This study was an attempt to add more meaningful research to previously unexplored areas, namely, using the "Inside/Out" Health Film Series to improve self-concept. It was expected that this study would provide an impetus to the planning of future research in self-concept change by innovative programs. This study also attempted to investigate whether "Inside/Out" seemed to cause a unidimensional or multidimensional effect on self-concept by having a consistent or inconsistent effect on the general, family, peer and scholastic subscales of the Self Appraisal Inventory--Intermediate Level. This study may, therefore, help educators to know whether they should treat self-concept as a general or global construct, or a multidimensional construct.

The results of this study can be used as a basis for further research on general and specified school students who become involved with the "Inside/Out" program. A foundation study and follow-up research on the stated subject is imperative when it is reflected that thousands of American and Canadian school children are being, and will be, subjected to the "Inside/Out" program.

Basic Assumptions

1. The Self Appraisal Inventory--Intermediate Level, is a valid and reliable measure of phenomenal self-concept of children. An inherent weakness to the validity in this assumption is that any dishonest response by the student to apparent "socially desirable" items on the Inventory will weaken the validity of the study. Anonymity of the student was stressed to combat this invalidity potential.

2. Self-concept is quantitatively measurable. It is important to recognize here that self-concept is extremely complex. There is no instrument or method known to the writer that will measure the complete self-concept, but certain significant aspects of the self-concept can be subjected to quantitative analysis.

3. The time period of fifteen weeks will be long enough to detect some self-concept changes. Only a minimal amount of self-concept studies have used this short time period to show significant self-concept change. A more desirable time period would be one school year or longer if possible (refer to limitation number six).

Limitations of the Study

1. Self-concept is an area in which much is still unknown. Evaluative instruments have not been refined enough to measure self-concept with complete accuracy.

2. The study was limited by the extent to which the subjects reported their true feelings about themselves at the time of being administered the Self Appraisal Inventory--Intermediate Level.

3. The quality and amount of discussion before and after each film were entirely in the hands of the teachers included in the study. The investigator had no control over the treatment or the "Inside/Out" programming.

4. A limited number of subjects were included in this research study.

5. The outcomes of this study may have some relation to the teacher as variable. The Florida Educational Research and Development Council study, among other studies, measured positive self-concept change and concluded that a key factor for successful change was the teacher (66, p. 5). The statistical design should control a major part of this factor, however. (Number of teachers in the study = 18)

6. The "Inside/Out" program is designed as a curricular approach to be used over an extended time period. This study was limited to a 15 week time period. Conclusions of the study are based only on this limited time period.

Summary

American Education has traditionally stressed the cognitive domain in its curriculum. Many professional educators now understand the importance of positive student self-concepts, and recognize that affective curriculum materials may help to change unsatisfactory student self-concepts. Educators must now give new planning emphasis to programs in this area. National

Instructional Television has developed the "Inside/Out" Health Film Series which is affective health education and may effect self-concept.

It was important that this study be conducted to determine if the "Inside/Out" program could bring about modification of or desirable change to more positive self-concepts in intermediate-age children. It is also important to know if self-concept is a unidimensional or multidimensional construct. This would have implications for curriculum development in education.

II. A CRITICAL REVIEW OF RELATED LITERATURE

The researcher felt certain subjects needed review in the development of this study. Self-concept theory, and self-concept as a unidimensional or multidimensional construct, is first discussed. The development and change of self-concept reviews information basic to the thesis of this study. Measuring the self-concept and research on self-concept variables are then reviewed. The effects of school and film on self-concept are included in the critical review of literature because this study is concerned with the effects of an educational health film series on the self-concept of students.

From a survey of the research literature dealing with the self-concept, one concludes that psychologists differ in their theories of self-concept. One also concludes that much about the self-concept is still to be investigated.

The Self-Concept

Since 1860, when psychology officially became a science, the question of a psychic agent which controls, guides and regulates man's behavior has been pursued. This agent has been referred to as a soul, a mind, an ego, a will, or a self. The rise of scientific psychology saw a rejection of the idea of this psychic agent, but recent years have produced a resurgence of interest among psychologists in the concept of the self.

According to Hall and Lindsey, much of what is written today about the self is derived directly or indirectly from the writings of William James.

James defined the self in its most general sense as:

... the sum total of all that a man can call his--his body, traits, and abilities; his material possessions; his family, friends, and enemies; his vocation and avocations and much else. (43, pp. 515-16)

James went on to define the constituents of the self as the material self, the social self, the spiritual self, and pure ego (43, p 516).

A survey of literature from the time of James shows variation in the way this term is used by various writers. An examination of different definitions of self is helpful.

Symonds discusses the ego and the self together, defining the ego as a group of processes (perceiving, thinking and remembering) and the self as the ways in which the individual reacts to himself. Sheril discusses self (or ego) as both object and process and says self refers to the "individual's attitudes towards himself, towards other people, and towards social institutions. ... they also influence his behavior" (43, p. 519).

Chein stated that "the self is not an object of awareness as the body is; rather it is the content of awareness and has no reality apart from such awareness" (43, p 521). George Herbert Mead discussed self as an object of awareness rather than a system of processes (43, p 522). Erikson's well-known theory of development states that identity has a self aspect as well as an ego one. Erikson writes:

One could argue that it may be wise in matters of the ego's perceptive and regulative dealings with its self to reserve the designation 'ego' for the subject, and to give the designation 'self' to the object. The ego, then, as a central organizing agency, is during the course of life faced with a changing self which, in turn, demands to be synthesized with abandoned and anticipated selves.... What could consequently be called the self-identity emerges from all those experiences in which a sense of temporary self-diffusion was successfully contained by a renewed and ever more realistic self-definition and social recognition. (43, p. 523)

Rogers believes every individual is in a continually changing sphere of experience where the individual is the focal point. The person reacts to his world as it is perceived and experienced. In the phenomenological world the organism has one basic aim: "To extend, maintain and enhance the organism." Rogers feels that the best vantage point for understanding an individual's behavior is from the internal frame of reference of the person himself. The self-structure is formed as a result of the individual's interaction with his environment, and his evaluation of his interaction with others. "The self-structure is seen to be an organized, fluid, but consistent conceptual pattern of characteristics of 'I' or 'Me' which are admissible into awareness and the values attached to these concepts" (67, p. 72).

This self has a constant goal of development which is explained by Jung:

Toward what goal is man striving? The ultimate goal is summed up by the term "self-actualization". Self-actualization means the fullest, most complete differentiation and harmonious blending of all aspects of man's total personality. The self is life's goal; a goal that most people strive for but rarely reach. (50, p. 85)

These latter theorists present man's self as being an integrated whole, aware of and being affected by, his environment. These give and take interactions enable man to establish value for himself and his actions. This forming and changing self structure is the core of the existence of man and is represented well by the process of Maslow's self-actualization process.

Self-concept was first developed by Cooley and by Mead in terms of the whole individual and his interaction with others (3, p. 317). Leading self-concept theorists such as Carl Rogers, Donald Snygg, Arthur Combs, and Abraham Maslow agree that the self-concept develops as a consequence of learning experiences with others and sharing of values and attitudes. Combs defines self-concept in the following way:

By the self-concept is meant all those aspects of the perceptual field to which we refer which we say "I" or "me". It is that organization of perceptions about self which seems to the individual to be who he is. It is composed of thousands of perceptions varying in clarity, precision, and importance in the person's peculiar economy. (17, p. 39)

Combs and Snygg go on to say that the self-concept embodies "those particular aspects of self which are such fundamental aspects of his phenomenal self that they seem to the individual to be "he" in all times and at all places (17, p. 33).

Cook sums up his discussion on self-concept definition with the following:

The self-concept, therefore, is the very core of personality; it is the self no matter what the situation or event. It is the individual's generalized self existing at some level of awareness. (19, p. 34)

Wylie refers to self-concept as "self as object" (the individual as known to himself). Her review of literature on self-concept refers to the:

... composite of ideas and perceptions that the individual has about his abilities, accomplishments, faults, weaknesses and values. Self-concept has been treated as a hypothetical construct, inferred from specified behaviors, and rendered quantitatively measurable. (42, p. 1910)

Beatty defines self-concept as:

... the picture an individual has of what he is like.... It is built up slowly over time from experiences the child has with his own body and directly with the environment. ... an individual comes to see himself in the world in rather specific ways and his behavior will be consistent with the kind of person he sees and feels himself to be. (5, p. 993)

For the purposes of the present study, the meaning attached to the term "self-concept" fits best with definitions given by Combs and Snygg, and Rogers. The following is a definitive statement of self-concept as drafted by Rogers.

The self-concept, or self structure may be thought of as an:

... organized configuration of perceptions of the self which are admissible to awareness. It is composed of such elements as the perceptions of one's characteristics and abilities; the percepts and concepts of the self in relation to others and as associated with experiences and objects; and goals and ideals which are perceived as having positive or negative valence. (68, p. 136)

Combs and Snygg have further differentiated the self-concept from the phenomenal self. They explain that the phenomenal self is inclusive of the self-concept and may vary with the person's perceptions of the situation. The phenomenal self consists of all differentiations of the perceptual field to which

one refers when he says "I" or "me"; it includes all perceptions of self.

Within this Gestalt of self-perceptions, those aspects which are the most vital, important, and fundamental such that they seem to the individual to always be "him," ... the very core of his personality, are referred to as the self-concept.

(19, p. 56)

Self-concept, as used in this study, is inclusive of the phenomenal self as postulated by Combs and Snygg.

Self-concept, then, is an extremely complex construct, and may be looked upon as an explanatory concept with hypothetical properties. It does not have "real-world" properties and is, therefore, hard to know completely. Much about the self-concept has yet to be discovered, even though a great deal has been written about it.

Self-Concept as Unidimensional or Multidimensional

Self-concept is presently the subject of an enormous amount of theory and research. Gordon and Gergen note the great number of variables that have been examined in relationship to the self.

The self has figured prominently in theory and research on social control, economic behavior, social deviance, personal aspirations, psychological development, interpersonal attraction, social influence, psychopathology and psychotherapy, to name but a few. (36, p. 1)

Gordon and Gergen, after an exhaustive review of the literature on self-concept, categorize the four primary theoretical issues of self concept as:

- (1) the self as fact versus construct, (2) the self as subject versus object,
- (3) the self as structure versus process, and (4) the self as single versus

multiple (36, p. 3). It is to the latter theoretical issue (number 4) that this study will address itself and explore.

Older and more current literature on self-concept discusses self-concept as either singular or multiple in character. This recurrence is partially indicative of the unresolved state of this question.

The singular self-concept is discussed in terms of "The self-concept," "A person's identity," "One's self picture" and other common expressions. In keeping with this tendency there is a strong commitment to view the self as a single entity, concept, Gestalt, or collage of perceptions. A typical example of this is found in Hogan and Green's article on student self-concept modification by teachers:

If we accept the postulate that self-concept is an intervening variable that serves to limit attempted academic achievement, then it is essential that all teacher education programs include cognitive and affective activities.... (45, p. 426)

Bakan, in his article on academic performance and self-concept as a function of achievement variability, shows the same theoretical stand:

Self-concept, first developed by Cooley (1902) and by Mead (1938) in terms of the whole individual and his interaction with others, has been found to be positively related to academic performance. (3, p. 317)

Combs discusses the self-concept in a similar manner. He states that "the most important single factor affecting behavior is the self-concept" (16, p. 39). Combs goes on to say, "in fact the self-concept is even more important to its owner than the body in which it exists." (16, p. 40) Combs refers to the make-up of the self-concept as a Gestalt and says:

For each person, his self-concept is who he is. It is the center of his universe, the frame of reference from which he makes his observations. It is his personal reality and the vantage point from which all else is observed and comprehended. (16, p. 42)

Combs also shows his singular approach when he states that "there is even evidence to suggest that the self-concept may be a better predictor of a child's success in school than the time-honored IQ score" (16, p. 45). The researcher found no evidence to suggest that educators were using self-concept scores rather than IQ scores, however.

The writings of important theorists and investigators such as Mead, Backman and Secord, Lecky, Fromm, and Rogers are all quite suggestive of the singular self-concept viewpoint. Backman and Secord, in their article "The Self and Role Selection" discuss the relationship between self and role. Throughout this article the self is viewed as a single entity. Lecky says that the self-concept of an individual "is the central axiom of his whole life theory" (36, p. 297). Fromm suggests a singular self-concept in his article on selfishness and self-love and goes on to say that "the majority of well-adapted individuals ... have lost their own self at an early age and replaced it completely by a social self offered to them by society" (36, p. 336). Rogers states that the central construct of his theory "would be concept of self, or the self as a perceived object in the phenomenal field" (36, p. 438).

These views of the singular concept of self lend itself to the structural orientation of a stable, baseline self-concept. In discussing this subject Gordon and Gergen state:

Any research orientation involving the prediction of behavior on the basis of single measures of self would also be quite compatible with this viewpoint. Such approaches assume that the person has a baseline manner of viewing himself, and that his basic view will influence his behavior over time and across situations. (36, p. 6)

In contrast to this position is one suggesting that self be viewed as multiple in character. This position suggests that people have varying and often inconsistent self-concepts as they move from one social setting to another. Variation in conduct, or an individual's behavior, seems to support the multiplicity position.

Coopersmith discusses self-concept as a complex concept and states:

The concept of self is thus multidimensional, with the different dimensions reflecting both the diversity of experience, attributes, and capacity and different emphases in the process of abstraction. (20, p. 31)

Campbell, in his article concerning school and self-concept, examines research and concludes:

It appears that ... there are many facets of self-concept. Very probably there are varying levels of each facet.... The teacher ... would probably be more effective in dealing with students by confining himself to the facet of self-concept which is specific to the problem at hand.

(12, p. 513)

Reudi and West discuss self-concept in an open school and a traditional school. In the article they quote Andrews as saying, "The self-concept may be viewed as a complex set of factors, some of which are related to school achievement and some of which are not" (69, p. 40).

William James discussed self-concept in terms of "The I" and "The Me". He delineated the constituents of "The Me" into three classes; the material me, the social me, and the spiritual me (36, p. 41).

Gordon discusses self-concepts as configurations of content. He emphasizes that self-concept is not a thing but a complex process of continuing activity. He goes on to say:

The very fact of conceptualization in terms of a multiplicity of available meanings leads to investigation of the actually encountered types of meanings and the relative frequencies of their occurrence. The plural view also leads away from the simplistic notion of the "self concept" of an individual, toward determination of the relative consistency of the elements. The idea of a structure of available meanings encourages inquiry as to their organization, perhaps along the lines of central versus peripheral elements, or in terms of a hierarchy of impact on perception and action. (36, p. 116)

Harry Stack Sullivan discusses self-concept as a self-system and emphasizes that the system is dynamic and "not a thing, a region, or what not, such as superegos, egos, ids, and so on" (36, p. 175). He goes on to explain the system as a quasi-entity, always complex and sometimes multiple.

Gergen reviews various research on the self-concept and, among other conclusions, he states:

The popular notion of the self concept as a unified, consistent, or perceptually "whole" psychological structure is possible ill conceived. Such a notion is simply not supported by the findings, related to the above described process of self-adaptation. A revision of the construct of self seems in order, and such a revision might profitably be directed toward a theory of multiple selves. In lieu of the self-concept, a process of self-conception will ultimately be necessary. (36, p. 177)

There has been very little empirical research on this theoretical issue. Theorists have only postulated on what could be. Self certainly seems to be a complex, dynamic, unitary activity. The investigator looks upon self-concept as a system of central meaning that an individual has about himself and his relations to the world about him. It is conceivable that self-concept may be more unidimensional or more multidimensional in an individual according to self-esteem. For example, high self esteem would give a central or unidimensional self-concept and low self esteem may give a multidimensional or varying self-concept effect. If an individual is struggling for an acceptable self-concept it is reasonable to assume his self-concept must remain quite fluid.

Self-concept may also be more multidimensional in the early years of development and gravitate toward a unidimensional self-concept during adolescence. It is reasonable to assume that an individual's self-concept would achieve a rather high degree of organization during the course of development and become more unidimensional and stable once self-differentiation and self-definition have taken place.

One group of self-concept theorists looks at self-concepts as being plural, multidimensional and not always uniformly positive or negative. Another group of self-concept theorists views self-concept as a singular or global construct. There are implications here for education.

Should education treat the development of positive student self-concept as a singular or multidimensional construct? If the singular self-concept theory is accepted, a general non-specific treatment would likely be generated.

If the multidimensional self-concept theory is accepted, then a specific analyzation and treatment program would be preferable. Direct and inferred self-concept testing procedures could tell educators wherein the individual student may have a poor self-concept dimension. A specific treatment program could be devised to positively increase that specific dimension of the student's concept of himself.

It will be recalled from Chapter One that the educator's ethical position here should be to: (1) discover better means of achieving positive self-concepts, (2) set the proper conditions through establishing certain qualities of interpersonal relationships, and (3) giving the student an opportunity to work through the internal, subjective processes of positive self-concept development.

Educators could learn which dimensions of the students' self-concepts the school experience could affect positively. They could also learn which self-concept dimensions were not being positively affected by the school experience and devise intervening processes to increase the positive growth of that dimension. This may call for outside help, such as members of the family.

If the investigator's conception of a multidimensional self-concept becoming more unidimensional during development were correct, it would be important to identify the stages of self-concept development according to ages or grades. Self-concept development programs would benefit from this knowledge.

Development and Change of Self-Concept

Although it is impossible at this time to identify exactly when the self-concept begins, "Jersild indicates that the self is not inborn but acquired" (48, p. 16). Combs and Snygg suggest that self-concept formation begins to occur shortly after birth as perceptions of self develop (17, pp. 31-48). During this infancy and early childhood period differentiations between self and non-self aspects of the perceptual field begin to be made. Through exploration of himself and through the perceived feed-back of others toward him, the child discovers who and what he is and is not, and attaches values to such discriminations (17, pp. 134-144).

Two theories commonly utilized to explain the development of a child's self-concept are the "mirror" theory and the "model" theory. The "mirror" theory looks to the reflected appraisals of significant others as the important influence on a person's self-concept. The "model" theory holds that the child's self-concept is modeled after the images of the significant others in his environment. The available empirical research supports both explanations (36, pp. 7-8).

Research emanating from the symbolic interactionist tradition has consistently found that a person's self-conception is associated with the conception held of him by others, especially significant others. Thus, the central hypothesis derived from the mirror theory is that parental evaluation of the child is positively related to the child's self-concept.

On the other hand, research stemming from behavioristic psychology supports the theory that self-concept develops through modeling behavior and

the internalization of standards and attributes of the model. The central hypothesis from the modeling theory is that parental self-concept is positively related to the child's self-concept (36, pp. 7-8).

The major self-concept theorists stress the importance of early family experiences and explain that the family is one of the most persuasive social influences on the individual as his self-concept develops. As a child ventures outside his family unit, other significant people take on special significance to him. McCandless says the child's valuation and perceptions of himself are strongly influenced by such persons (19, pp. 173-205). The reflection of the perceptions of these "significant others" may cause him to value himself, become a nonentity to himself, or even feel he is nonvalued and rejected.

This discussion suggests that the self-concept basically develops from the approval of "significant others". While "significant others" are very important to the developing self-concept, it is important to note that the self-concept is a very complex and intricate system, not just a small "picture of one's self". The complete environment of the individual is important in understanding self-concept development. The warmth and organization of the home, the freeness to create in the classroom, the observation and interaction with one's environment in developing values, etc. have an effect on self-concept. The perceptual, conceptual and attitudinal components of the self-concept are affected by the total environment in which one lives. Even though self-concept development seems to be highly dependent upon approval of significant others,

an attempt to influence self-concept may not be successful if the environment of the individual is ignored.

Combs and Snygg emphasize that the self-concept is more than a collection of isolated perceptions of self. Differentiation processes such as integration, synthesis, analysis, and generalization produces an organized patterned interrelationship in which all perceptions of the "I" or "me" is formed (17, pp. 30-48).

The Florida Educational Research and Development Council in their self-concept study stress the importance of outside influences in the development of self-concept. They state "the self-concept is formed from the outside-in" (66, p. 2). A child learns who he is through the reactions of people he comes in contact with, and this includes feeling and emotion as well as words. The child's self-concept development is an on-going process, with the early years being very critical. This study states that "the concept of self doesn't fully crystallize until somewhere in the teens" (66, p. 3).

Though the process of self-concept development commences largely at birth and is quite highly differentiated by late adolescence, this does not imply that it continues as a static construct. On the contrary, self-concept development is a lifelong process. Combs states that "because the self-concept is learned, it can be taught. The purpose of (teaching) is to assist other people in exploring and discovering more effective relationships between themselves and the world" (16, p. 56). Richardson declares that "a child's negative concept of himself can be changed" (44, p. 994). Purkey gives studies

which show how the self-concept may resist change, yet how change is possible when situations are conducive to change (65, pp. 24-30).

The Florida Educational Research and Development Council in their Self-Concept Study received a federal grant because of the following hypothesis:

... The self-concept governs behavior; it is learned, therefore can be taught. The self-concept in a child of elementary school years is still malleable; so effective classroom techniques might be developed for improving his self-concept, hence his performance. (66, p. 5)

Gordon believes that "although the family usually reinforces the culture's ideas, the school situation plays a part in modifying a child's self-esteem" (38, p. 1024). Gordon goes on to discuss a cyclical pattern in the development of the self-concept. Self-concept appraisal is first based on the individual's own body, followed by appraisals of significant others (e.g. teachers and peers) which the individual takes into his self-concept. This suggests that self-concept is not fixed, but undergoes modification probably throughout life. (38, p. 1024).

Murphy believes that self-concept is ever changing and dictates one's reactions to outside social pressures. Other authorities of self-concept state that self is the emotional and social structure within a person and self-concept is open to change by the varying stimuli throughout life (59).

Schlein suggests that the self-concept stands between the stimulus and response. He goes on to say:

Since perception can change, the self-concept can change; the stimulus then can be perceived in a new way and responded to differently. This makes psychotherapy and education possible. (71, pp. 111-127)

This dynamic nature of self is not contradictory to the idea that self-concept is stable and tends to resist change. Concomitant with the need to maintain and enhance the self is the need to maintain an adequate self and consequent adequate functioning of the individual in different situations. Change in the self-concept is facilitated or inhibited by the following conditions:

1. The current degree of differentiation of the self-concept. A well differentiated self-concept is more resistant to change.
2. The value placed on the aspect to be changed. Less important self-perceptions are more easily changed.
3. The relationship of the new concept to that of the maintenance and enhancement of the self. "... the more highly self accepting an individual is, the more free he is to permit change in his self-concept."
4. The vividness of the experience to the individual concerned. As the vividness of an experienced event increases, there is a concomitant increase in likelihood of change in the self.
5. Assistance in focusing on self-perceptions. Allowing others to be aware of a person's self perceptions enhances the person's awareness of these perceptions (19, p. 60).

Support has been given to show that self-concept can be changed, and in a positive direction. The great importance of a positive self-concept development is accepted by all self-concept theorists. In educational programs the development of a positive self-concept is being given more attention. Gillman,

conducting a 1969 study on self-concept variables, concluded that self-concept is closely related to all behavior. She went on to say:

Future research . . . concerned with structured programs for the development of positive self-concepts and the consistent use of positive mental health practices in the classroom might reveal significant differences between mean self-concept scores in the pre-test and post-test data. Based on the findings of this study, the investigator also concluded that the development of positive self-concepts, which appear to be prerequisite to academic achievement, should be a major objective of every educational program concerned with the development of productive citizens. (35, p. 148)

Combs emphasizes the great importance of self-concept by discussing its effects on a great variety of behavior:

The psychological literature is overflowing with learned articles and research studies dealing with the effects of the self-concept on a great variety of behaviors including failure in school, levels of aspiration or goal-setting, athletic prowess, mental health, intelligence, delinquency and criminality, ethnic groups, the socially disadvantaged and industrial productivity. (16, p. 44)

In summary we find that the self-concept is seen as a moderator of all perceptual and cognitive experiences and has a profound and important influence upon behavior. It is measurable and amenable to change or alteration through experience with and/or feedback from the environment that surrounds the individual. We can measure change of shift as the individual interacts with his environment. Self-concept can be modified positively, though it is slow to change. Significant people, such as family members and teachers, can have a positive effect on self-concept. The environment, which may include educational curriculum, can also have a positive effect on self-concept.

Measuring the Self-Concept

Researchers have generally used three categories of techniques to measure the abstraction of self-concept to an operational definition. These are: inference based on the observation of behavior, inference based on projective techniques, and the self report. Much debate over which is the superior method seems to show that each technique has advantages and disadvantages.

Inference based on projective techniques is used by the Rorschach Method (7), the Michigan Picture Test (1), and the Thematic Apperception Test. A very high level of skill is needed to properly utilize these tests. Inference based on observation of behavior as observed by others takes skill and a considerable amount of time.

The self-report of the subject may also give an inferred self-concept. Examples are the Q-sort and rating scales. The Q-sort causes a forced distribution by forced choice and can be a very penetrating interrogation. Self report rating scales are quite numerous. Piers and Harris' "How I Feel About Myself" scale consists of eighty declarative statements (63). It can be used with children over a wide age range. Jersild used childrens' essays about themselves as an approach to children's self-concepts (48). Gordon used Jersild's categories to develop the "How I See Myself" scale, consisting of forty items. This instrument can only be used with children down to the third grade (37). The "Where Are You?" game, developed by Engel and Raine, has the child describe the "good life" and then place himself as high on the ladder as he thinks he is in relation to it" (27).

Combs believes the most accurate measure of self-concept is an inferred measure (17, p. 43). Strong and Feder were of a differing opinion. They reviewed literature regarding measurements of self-concept and concluded that self-assessment remarks can be considered an estimate of an individual's self-concept, and various inferences regarding the characteristics of the self-concept can be made (88, p. 137).

Research on Self-Concept Variables

The major variables that self-concept studies have investigated include sex, race, socio-economic status, achievement, and intelligence.

Personnel at Ohio State University investigated mental health problems in grades three to six, and concluded that "maladjustment was greater among boys than among girls" (4, p. 33). Bruck found that there were significant sex differences when he compared early elementary students with girls having lower self-concepts, but there were no significant sex differences when he compared later elementary school students (10, p. 1).

McKee and Sherriff's study of college students' self-concepts concluded that womens' self-concepts were more unfavorable than mens' (55, p. 363). Wendland found lower self-concepts among girls in the eighth-grade and reasoned that school achievement is a more salient factor for girls in adolescence than for boys (85, p. 75).

Wylie summarized a vast number of studies on sex and self-concept. Though difficult to synthesize, the results seem to favor evidence supporting

the proposition that males tend to have more positive or favorable self-concepts than females (88, pp. 1-22). It is concluded by the writer that, though the findings concerning sex and self-concept are contradictory and conflicting, there seems to be more evidence supporting the idea that females generally have lower self-concepts than males.

Cook, after a review of major self-concept studies, concluded that "social class seems to be a more potent variable than race" in its effect on self-concept (19, pp. 78-79).

Trowbridge, in her study on self-concept and socio-economic status, studied socio-economic status, race, sex, age, and density of population. Age and sex were found to be insignificant factors but the socio-economic status effect was significant. Lower socio-economic status children had higher self-concept scores. IQ levels were later examined and did not seem to be a significant factor (78, pp. 525-35).

Nemeroff's study of eighth-grade pupils obtained results which indicated a relationship between self-concept and socio-economic status. This finding was significant at the .05 level after intelligence was partialled out (60).

The results of studies which compare self-concept and achievement are very contradictory. Coopersmith reported that high self-esteem and success are complimentary (4, p. 45). Klausmeier and Check reported that emotional adjustment, achievement in relation to capacity to achieve, and integration of self-concept were significantly and positively related (51, p. 1057). Fink's hypothesis that adequate self-concept was related to underachievement

was supported by his findings (31, p. 57). Williams and Cole found a significant correlation between self-concept and reading achievement, and self-concept and mathematical achievement (87, p. 478).

Negative relationships between self-concept and academic achievement have also been found. Carter's findings conclude that personal adjustment or self-concept and academic achievement are not significantly related (13). Nemeroff found no significant correlation between self-concept and academic achievement and, in fact, concluded that a negative trend could be seen in the relationship between self-acceptance and achievement (60). Drews and Teahan investigated school grades and self-concept and found that a person may have good grades and a poor self-concept (25, p. 328).

The findings in the relationship between self-concept and intellectual ability is quite negative. Stevens states the following: "Typically, investigators on the relationship between personality (self-concept) and intelligence came out with extremely low correlations, ranging from -0.40 to 0.20 with an average close to zero" (74, p. 281). Wattenberg and Clifford found no significant relationships between intellectual ability and self-concept at the kindergarten level (82, p. 461). Walsh found both positive and negative self-concepts existing in groups of bright students (IQ's were 120 or above) (81). McIntosh's study concerned self-concepts in gifted, honors and average college students. No one group had significantly higher self-concepts than the other two groups (54).

School and Self-Concept

Teachers have long acknowledged that a child's view of himself is important, connected somehow with his success in school. The self-concept theory follows a chain of perceiving - behaving - becoming. If the child does not experience success in academic or socially acceptable activity, then we can expect the child to become successful in socially unacceptable ways.

Snyder discusses the "self-fulfilling prophecy", which states that a student tends to act in school as he is expected to act. Teachers can and do modify the self-images (self-concepts) of students in either a positive or negative direction (72, pp. 242-246).

Prescott, an early leader in affective education, demonstrated that research supports the idea that feelings and emotions play a critical role in blocking or enhancing learning. Beatty comments on Prescott's research and writings:

Subsequent research has continued to support his findings, and yet, the area of feelings and emotion is neglected almost totally in our current educational processes. It is no longer possible to talk about feelings and emotion separately from a consideration of the total functioning organism.

(6, p. 86)

Beatty discusses feeling and emotion in relation to behavior, and relies upon the writings of Rogers, Maslow and Combs, who are all self-concept theorists. He stresses the open discussing and handling of feelings in the classroom. Educators have devoted almost exclusive attention to cognitive and intellectual processes, ignoring the affective processes. Why is this so?

We have been blind to this for the simple reason that we distrust many of our own feelings and emotions and do **not** understand the relationship between feelings and intellectual behavior. We are afraid or at least dismayed or embarrassed by the appearance of strong emotions in others or in ourselves.

(6, p. 86)

Project Beacon developed a very complete self-concept curriculum guide for the elementary grades. The Project was introduced by the following quote:

In facing the complex task of guiding young people in their total development, educators have come to understand that the psychosocial aspects of human development cannot be separated from the intellectual aspects of this development. The two, in fact, are so inextricably related that the neglect of one usually retards the growth of the other.

(26, p. 1)

Positive changes in self-concept then come not only from cognitive experience but from experiences in the affective domain which effect the "inside" feelings and attitudes of the student. Buchanan, in a very timely discussion on this subject, states:

... we are experiencing diminishing returns on our cognitive expertise, and since our student population seems ready to consider affective processes, I believe the time has come to develop affective expertise. Affective expertise is ... an individual's ability to be aware of another person's feelings and meanings. (11, p. 615)

Combs, a noted authority in the domain of self-concept, stresses the idea that because the self-concept is learned it can be taught. That teaching, however, has to have personal meaning to the student. Behavior is only effected through internalization. Combs stresses the importance of the affective side of education when he states:

Human attitudes, feelings, values, beliefs, and perceptions are the very aspects of experience which makes us human. They are also the causes of our maladjustments and failures and the sources of our greatest joy and fulfillment.

(16, p. 31)

Combs goes on to say that our preoccupation with information itself could be responsible for much of the depersonalization, dehumanization and alienation in America's schools. He continues: "Knowing comes from getting new information. Change in behavior comes from the discovery of meaning" (16, p. 95).

Dinkmeyer, a professor of educational psychology, stresses access to both the affective and cognitive domains if learning and change is to occur. There can be no permitting of the dichotomy between emotion and intellect, often present in learning. True education has got to deal with feelings, values and attitudes. Dinkmeyer shows a strong educational bias on this subject:

The teacher must be able to interrelate attitudes, perceptions, feelings and values with developing skills and knowledge. Anything less than an approach that combines the affective and cognitive domains in education will be ineffectual. I am proposing that the number one priority ... is concern for the emerging self.... (24, p. 618)

Studies completed in education on self-concept have revealed that teachers and curriculum do have an effect on students' self-concepts and that self-concept and learning are tied together.

The Florida Educational Research and Development Council conducted an excellent case study on enhancement of the self-concept. Various self-concept improvement techniques were identified and utilized in the Orange

County elementary schools. More effective techniques utilized were:

... leading children to draw pictures of themselves and to talk about themselves. They saw slides and motion pictures of themselves in successful classroom situations. They talked with successful college students and professional people of their own race and environmental background. They played games in which they had the chance to be "stars".

(66, p. 4)

After several months this study showed perceptible changes in positive self-concept. The study concluded that self-concept can be positively changed with a comprehensive program over a long period of time, and a key factor for successful change was the teacher (66, p. 5).

Georgeoff studied the effect of curriculum on certain fourth-grade white and negro children and concluded: "The self-concept of children apparently can be improved through the curriculum" (34, p. 8).

Hogan and Green conducted a study in inner city schools concerning teacher behavior influencing students' self-concepts. Their hypothesis stated that students of teachers who participated in the workshop will have higher self-concepts than students of teachers who did not participate. There was a positive difference found in the experimental group but the difference did not reach statistical significance at the .05 level. Limitations had a major influence on the findings (45, pp. 423-426).

Jasik, at Columbia University, conducted a self-concept improvement study with 41 kindergarten children, using a posttest control group design. The study focused on behavior of adults and children as they engaged in facilitating encounters intended to improve children's self-concepts. Children

were given a non-verbal self-concept test and assessed with a teacher-rating scale. Facilitating encounters were conducted daily for six weeks, and the test and scale were readministered. The major finding suggested in this study is that self-concept at the kindergarten level may well be modified by experience in the classroom setting. Treatment groups showed more improvement as reflected by the scores on the self-concept measures than non-treatment groups. The study concludes that self-concept development does take place in the classroom. Experiences appeared to affect children's self-concepts (49).

The study also suggested implications for further research, including this study being repeated with further sampling and controls. It was also suggested that different populations and instruments be used to study self-concept development, and that more incisive methods of measuring self-concepts of young children should be devised. The author concluded that the study of methods to change self-concepts in the early years seems warranted; a logical corollary would be research and prevention of the development of negative self-concepts (49).

Coleman studied negative self-concepts of elementary school-age children and teacher-pupil involvement and interaction. A posttest control group design was used. The interim treatment period was six months. Findings for the experimental group showed that negative self-concept responses were significantly reduced at or near the 0.01 level of significance. It was concluded by Coleman that the school setting provides an opportunity

for a reformulation of the self-concept, that the self-concept is a variable that can be isolated and influenced, and that negative self-concept responses can become more positive through a certain syndrome of teacher-pupil relationships (15).

A study to determine the effect of programmed instruction on the self-concept of junior college students was conducted by Rupp in 1969. A posttest control group design was used with the experimental group using a specially prepared programmed text and the control group being involved with the traditional lecture-discussion method for the fall quarter, 1968. Statistical procedures using the "t" test for significance of difference between two independent samples were employed in analysis, with the 0.05 level being significant. A significant difference was found on self-concept enhancement of the female experimental group and a non-significant enhancement of self-concept of the male experimental group. The use of the traditional instruction programs (control group) was not helpful to enhancement of self-concept. Recommendations from this study stated that further studies should be made that will determine the best methods of enhancing self-concept, whether it be through programmed instruction or through other novel methods of instruction (70).

Several studies have examined the relationship between self-concept and school achievement. Reeder found that children achieve lower in terms of their potential if they have a low self-concept. Coopersmith also found similar results. Walsh found that boys above average in intelligence who are low

achievers perceive themselves as "defensive and limited in communication with their environment" (12, p. 511).

Campbell's study concluded that "efforts to improve self-concepts have a greater chance of affecting the achievement of boys than that of girls." He also concluded that self-esteem (a part of self-concept) may be more positively affected to achievement in fourth and fifth grades than in the sixth grade. He concludes: "Although there is conflict, the weight of the evidence suggests that self-concept, as measured by these several independent researchers, does make a difference" (12, p. 513).

In Binder's study, the utility of two non-intellective variables, self-expectations and self-concept of ability as predictors of scholastic achievement was examined and Binder concluded: "When the non-intellective variables were added to the regression equations, a sizeable gain in explaining variance in scholastic achievement was made over that usually reported" (8, p. 364).

Binder went on to suggest that more exploration is needed concerning self-concept "under various conditions, such as schooling or work" (8, p. 366).

Fink's study found a significant relationship between adequacy of self-concept and level of academic achievement. Piers and Harris found a positive relationship between self-concept scores and IQ scores. Pashal, in examining these studies, concludes that "the results indicate that a relationship does exist between reported self-concept and teacher assigned grades" (31, p. 394).

Pashal goes on to state: "... schools, which tend to serve as part of this defeating process, can instead serve to strengthen the self-concept of ... children, with a consequent strengthening of their performance as students and citizens" (31, p. 396).

Denmark found that positive self-concept was related to academic achievement (23, p. 32).

Felker's study showed a positive relationship between self-concept and verbal fluency (30, p. 1).

Gordon and Wilkerson assert that though students' attitudes toward school and learning are important, "it is in the area of attitude toward self and others that the crucial determinants of achievement and upward mobility may be, and it is in these areas that our data are least clear" (19, p. 69).

Caplin's study found a significant positive relationship between self-concept and academic achievement. Sixty intermediate children were tested for self-concept and those having more positive self-concepts had higher academic achievements (14, p. 14). Lumpkin found significant relationships between pupils' self-concepts and achievement in reading in the fifth grade (52). Bruck's study on academic grade-point averages of children in grades three through eleven found the grade-point to be influenced by self-concept. He concluded that a "positive and significant relationship exists between self-concept and grade-point average on all grade levels ranging from one to five per cent level of significance" (10, p. 14).

Through this brief review, one can see that self-concept is a very important part of the education process. Educators have concentrated too long on the cognitive processes alone and many are now recognizing this. Humanistic education will bring the handling of feelings, attitudes and values into the classroom. What is needed along with this surge of interest in positive self-concept development are competent, relevant, and humanitarian teachers with well-developed curriculum and materials to enhance self-concept. It will take mature people who are brave enough to course these uncharted waters. Curriculum for self-concept development may be greatly aided through the use of film.

Film and Self-Concept

Much research has been done on the effect of film in educational curricula and self-concept. For a period of time different methods of instruction, including film, were measured against each other to see which had the greatest learning effect. Educational research findings now show that the teacher, films and television, and other technologies can be used in complementary ways to affect self-concept.

Project Discovery findings included the following:

Visual media can influence the classroom toward an atmosphere of anticipation, challenge, and discovery. The visual media can themselves be used in numerous, seemingly unorthodox ways to achieve particular educational goals set up by the students as well as by the teacher. (47, p. 255)

Grabowski stresses the idea that "the medium sharpens students' vision of man," and goes on to say "if education is supposed to reach the 'whole man' ... films must be considered as a real factor in the lives of youngster" (40, p. 253). Grabowski also states that films have the potential to give students insights into their own experiences and become aware of how others feel and think. Films can help students develop an understanding of the past and an insight into the present (40, p. 254).

Cook, in an article entitled "Film - The Great Humanizer," discusses film as a "potent educational tool" (18, p. 38). He begins: "Film is one medium that not only enables us to become human, but also expands the parameters of our humanity" (18, p. 38). Cook enlarges upon this point as he explains why film is a potent educational tool:

Wisely and judiciously used, film will create an involvement with an enthusiasm for learning. It will enable teachers to do the kind of job in the classroom they want to do. It will help administrators solve some discipline, motivation, and achievement problems. It will stimulate children to pursue knowledge with a passion. (18, p. 38)

Cook goes on to give salient statements concerning what film can do:

1. Film is a unique communications medium.
2. Film can rearrange, expand or condense and animate data.
3. Film can sharpen perception.
4. Film whets our appetites to know.
5. Film brings us to empathize.
6. Film hops all kinds of boundaries, such as culture, language, grade levels, etc.
7. Film shapes behavior. Under this point Cook discusses specific case histories of positive behavior change utilizing film. He says: "Given mature and relevant content, a film can influence the way people behave, socially as well as intellectually" (40; p. 40).

8. Film creates creativity. Healthy relationships with other human beings can be created.
9. Film is a mode of inquiry.
10. Film must interface with other learning activities.
11. Film expands our humanity. "... emotionally we can experience a multitude of roles that one person in one lifetime could never play." (18, p. 41)

The last point in Cook's article brings out the vicarious experience a student can have with films. Combs believes that "effective learning is a product of dialogue with real problems" (16, p. 114). These problems may be symbolically encountered through film media. Combs states that "symbolic confrontations have the advantage of keeping the person safe ... and make possible a much wider range for exploration of meaning" (16, p. 114). Mental manipulation about self and the validity of decisions can also occur through the use of films.

A potential strength of film is its effect on the affective or feeling life of the child. Culkin expands this idea with the following:

Motion picture appeal to us because they are emotion pictures. They draw us to tears and fears and laughter, unlike any other medium. This intrinsic lure of the moving image explains why students respond so quickly to films and why they get so involved in discussing and writing about them. The interested teacher will find that the right film with the right audience and the right discussion techniques leads to a very direct and human form of classroom communication which can be extended to the rest of the curriculum. (21, p. 20)

Film can also be an important imitative learning experience for the children. Gowan's study on self-concept change gave evidence to show that "the observation of the behavior of a live or film-mediated neutral model

figure was a sufficient condition for imitative learning to occur... " (39, p. 705).

Ross studied the efficacy of film-mediated modelling procedures with young, educable mentally retarded children and confirmed her hypothesis that "the association of a model with rewards can be used to facilitate learning from audiovisual presentations in educably mentally retarded children (39, p. 705).

Film studies have been conducted in Health Education, relating the effects of films upon individuals attitudes, self-perceptions and motivations. Lashley and Watson found that a venereal disease film did influence viewers who had contracted a venereal disease to seek immediate treatment, although it had no measurable effect on subsequent sexual behavior of the audience. Motivation was caused, although no effect was shown on attitudes or self-perceptions (74, p. 165). Fearing found a positive attitude change in naval trainees by using venereal disease and malaria films. He tested for specific subject attitudes, presented the films and then measured for attitude change (29). Mertens studied the effect of five mental health films on a group of university freshman women and found a significant improvement in their individual perceptions of themselves. Mertens used a self-attitude instrument and a posttest design (56).

Weisgerber conducted an exploratory study in which he attempted to identify elements of an existing educational film which might affect the self-concept and then incorporated these elements in two new films. He then

evaluated the effectiveness of these two new films, combined with class discussion, for white, black and Mexican-American ethnic groups in the sixth grade. An experimental-control posttest design was used with a multiple regression analysis and test approach. The study included 579 children in 24 classes from 12 schools. The conclusion was that the two new films brought about realistic self-appraisal, but additional educative materials to develop self (concept) enhancing behavior are also required (84).

Banks conducted a study among 456 fifth-grade students in 22 elementary schools in Florida. He used a posttest control-group design to test the effects of ten different series of special instructional television programs designed to improve self-concept. The presentation was made in 15 weeks. The self-concept was tested using the Self-Concept Q-Sort and the statistical design was an analysis of covariance, using the pretest score as the covariate. A significant change was related to race at a 0.10 level but was less than the established acceptable 0.05 level. The author suggested that additional attention should be given to self-concept measurement instruments to increase validity and reliability. It was also suggested that follow-up research,

... be conducted to explore activities that might relate specifically to ... self-concept development. Educators should make use of knowledge relevant to the role of self-concept as a motivational factor in academic achievement.
(4, p. 71)

A study was done by Sweeney to determine if the self-concept of Junior High School students could be improved by showing them a film on self-concept

or by allowing them to view a video-tape of themselves. Fifty-eight students in Phoenix, Arizona were placed into one control group and two experimental groups. One experimental group viewed a film on self-concept and immediately after the film took the Tennessee Self-Concept Scale. The other experimental group was video taped individually, viewed a playback of the tape and then took the Tennessee Self-Concept Scale. The control group only took the Tennessee Self-Concept Scale. A multivariate analysis of variance was used to test the results. The main finding of this study was that self-concepts were effected at the 0.066 level of significance, short of the 0.05 level which was chosen as acceptable. The conclusion was that the impact of a film or viewing oneself on video-tape did not produce the desired change in self-concept, but did produce a change (76).

The small amount of research concerning the effects of film on self-concept does show some promise. It is important to recognize, however, that others connected with the film presentation (e.g. the teacher) may be causing some of this effect. The writer speculates that film by itself may be a passive educational tool, but, if used in conjunction with good educational programs and personnel, can have a positive effect on student self-concept.

If film can effect self-concept, how long will this change last? There does not seem to be any research on this question, or on follow-up programs which would continue to strengthen the positive effects made by films and other self-concept enhancing programs. The writer speculates that the early effects of programs to enhance self-concept would diminish unless continually

strengthened by follow-up programs. More research in this area is called for.

Summary

Although the self-theories of psychologists differ, most theories agree that an individual's self-concept is related to his behavior.

One of the differing theoretical issues is that of self-concept being a unidimensional or multidimensional construct. Major self-concept theorists differ on this issue.

Self-concept variables are somewhat inconclusive. Research on sex is contradictory, but does give evidence to show that girls generally have lower self-concepts than boys. Race is not found to have a relationship to self-concept, but socio-economic status does. Studies of the relationship of self-concept to intellectual ability are contradictory and inconclusive. Studies on self-concept and achievement are sometimes contradictory, but there seems to be more substantial evidence which indicates a relationship between them.

Research of the literature on self-concept showed that a positive self-concept is vital to the healthy functioning individual and can be duly influenced. Educational programs have been shown to effect positive self-concept change. The media of film does show both a cognitive and affective effect and may influence self-concept.

III. METHOD AND PROCEDURES FOR SOLUTION

This chapter considers the specific methodology and procedures developed to test the hypotheses stated in Chapter I. The methodology is discussed in terms of the sample used, the assessment instrument, experimental procedure, instructions to teachers, statistical analysis and hypotheses testing.

The Population Sample

The pretest sample consisted of 452 fifth-grade students from six school districts in Oregon, Washington, and Utah. The sampling technique utilized was based on randomness and had three phases:

1. Stratified: The two levels of stratification were school districts in each state using the "Inside/Out" program and school districts not using the "Inside/Out" program during Fall, 1974.

2. One school district in each level of stratification in each of the three states was randomly selected, using a table of random numbers (77). Additional criteria which attempted to match the experimental and control groups in each state were the following:

- a. Expenditure per student per annum in each state was approximately the same.
- b. Each district had access to Educational Television.

In addition to the above, the author developed and sent to an administrator in each school district a questionnaire which reported on special programs for self-concept development, sensitivity training for teachers, a family life education program, and psychological testing (see Appendix I). The purpose of this questionnaire was to further attempt to match the population sample as near as possible.

3. A cluster selection of three classes of fifth-grade students in each school district was then selected, again using a table of random numbers (77).

TABLE I. NUMBER OF SCHOOL DISTRICTS IN POPULATION SELECTION

States	"Inside/Out"	Control	Total
Oregon	1	1	2
Utah	1	1	2
Washington	<u>1</u>	<u>1</u>	<u>2</u>
Totals	3	3	6

The school districts chosen were the Alpine and Jordan School Districts in Utah, Beaverton School District No. 48 and Ashland School District No. 5 in Oregon, and the Olympia and Battleground School Districts in Washington.

A total of eighteen fifth-grade classes were selected from the three states, with nine in the experimental group and nine in the control group.

TABLE II. NUMBER OF FIFTH-GRADE CLASSES IN POPULATION SELECTION

States	"Inside/Out"	Control	Total
Oregon	3	3	6
Utah	3	3	6
Washington	3	3	6
Totals	9	9	18

TABLE III. NUMBER OF FIFTH-GRADE PUPILS IN POPULATION SELECTION

States	Self-Appraisal Inventory Pretest		
	"Inside/Out"	Control	Total
Oregon	71	68	139
Utah	84	84	168
Washington	71	74	145
Totals	226	226	452

States	Self Appraisal Inventory Posttest		
	"Inside/Out"	Control	Total
Oregon	60	53	113
Utah	79	79	158
Washington	66	73	139
Totals	205	205	410

A total of 410 students were included in the complete study. Forty-two students were lost from the pre to the posttest due to absences during the administration of the posttest.

Assessment Instruments

Self-concept assessments can only be inferred or approximated from behavior observations because the phenomenal self or self-concept is not a physical entity, and as such is not open to direct observation. Cook states that one's self-concept is not exactly the same as a self report (19, p. 82). The degree of correspondence which does exist is dependent upon at least five factors:

(a) the clarity of the individual's awareness, (b) the degree of availability of adequate symbols for expression, (c) the willingness of the person to cooperate, (d) the degree of freedom from threat and (e) the perceived social expectations.

(19, p 82)

Wylie's comprehensive review of research in the self-concept area, which seems to be the most definitive, reports the use of a wide range of instruments to measure phenomenal self. Because the majority of these instruments have been used in only one study, they provide almost no reliability estimates and completely disregard validity (88).

Measuring Instrument

The instrument selected was the Self Appraisal Inventory--Intermediate Level (grades 4-6), 1972 revision. This inventory was developed by Instruc-

tional Objectives Exchange (I. O. X.) in cooperation with Title III representatives of 40 states. In developing this instrument, the I. O. X. staff conducted an intensive search of the literature on the topic of self-concept, and all major self report measures of self-concept that were then available.

This instrument was developed for group assessment purposes rather than individual assessment. It is a direct self-report model with high content validity. The Self Appraisal Inventory solicits the student's opinions in a straightforward, question-answer fashion. "This type of measure possesses high content validity, for most of the persons inspecting the items would assert that an individual who truthfully responded in a certain way was manifesting a positive (or negative) attitude" (64, pp. 3-4). The I. O. X. states that anonymity of the responder will heighten the validity of this type of measurement. Anonymity of the individual subject was stressed by the researcher of this study.

The instrument has been well-tested and is very functional and usable, according to I. O. X. (64, p. 4). In all, 1229 pupils were involved in the revision field tests. For purposes of the reliability estimate the complete battery of tests were administered at two-week intervals to the students. The inventory showed an overall internal consistency index of 0.84 and a test-retest stability index of 0.88. An important consideration is stressed by I. O. X. :

It should be emphasized, however, that the measures under analysis deal with affective, not cognitive, learner goals. These educators who have been accustomed to expect reliability

coefficients of approximately 0.80 - 0.90 must recall that one might anticipate more stability and perhaps more internal consistency from a measure of mathematical competency or intellectual aptitude than from a measure of one's more vacillating self-esteem or attitude toward school. (13, p. 11)

This instrument gives four self-concept measures:

1. Family: i.e., one's self-esteem yielded from family interactions.
2. Peer: i.e., one's self-esteem associated with peer relations.
3. Scholastic: i.e., one's self-esteem derived from success or failure in scholastic endeavors.
4. General: a comprehensive estimate of how the self is esteemed.

I.O.X. states that these scores reflect different dimensions of the learner's self-concept.

The writer selected this instrument for several reasons. It is a comprehensive and recent Inventory (1972) which has allowed the developers to take advantage of recent self-concept studies. This instrument is concerned with group assessment, rather than individual assessment, because the purpose is educational and not clinical. This is a criterion-referenced test which has the following educational advantage according to I.O.X.:

A norm-referenced test often measures general and rather stable traits of the individual, and as such is less capable of detecting changes brought about by educational treatments. A criterion-referenced test, on the other

hand, is designed specifically for use in detecting the status of groups or individuals with regard to some specific criterion objective, both before and as a result of an educational treatment. (64, pp. 3-4)

I. O. X. continues with discussing this self-concept measurement as being used in connection with the evaluation of programs "designed to improve learner's self-concepts (or impede increasing negativism in their self-concepts)."

I. O. X. suggests a pretest before and a posttest after the instruction (64, p. 17).

This instrument was also selected because it reported subscale scores, which was necessary to test the theoretical issue of the unidimensional or multidimensional self-concept.

Procedures

The administration of each randomly selected school district was personally contacted by the writer for approval to do the study in their districts. When approval had been given, three fifth-grade classes were randomly selected within each school district. Each class teacher was personally contacted and sent a packet containing a letter describing the research project and a set of specific instructions (see Appendix I); a test booklet (Self Appraisal Inventory--Intermediate Level) and two stamped self-addressed envelopes to send the answer sheets to the author. The writer recognized the teacher and treatment as important variables, and discussed these under limitations in Chapter One. The importance of the teacher in modifying self-concept is stressed in the literature. Snyder states that teachers can and do modify students' self-

concepts in a positive or negative direction (72, pp. 242-246). The Florida Educational and Research Development Council concluded, after an extensive self-concept study, that a key factor for successful change was the teacher (66, p. 5).

The instruction letter stressed certain important points for the teacher. The testing was to be included in the normal school program and special attention was not to be called to it. Anonymity of the student was particularly stressed. The teacher was asked to encourage the students to be very honest and react to the items with their own feelings, not what they think would be the socially desirable response. The teachers were asked to administer the Inventory during the second week of the Fall term 1974 and again during the last week before Christmas recess, 1974. After each test administration the teachers sent the answer sheets to the present author.

A follow-up posttest reminder letter was sent to each teacher on December 3, 1974 (see Appendix I). It stated that the teacher should review the letter of instructions. Anonymity of the students was again emphasized. The teachers were also asked to send information on the number of "Inside/Out" films shown during the interim between test administrations, and the average length of time of discussions after the films were shown. The writer had no control over the treatment process, which is discussed under limitations in Chapter One. The random process of selecting the eighteen teachers for the study should control the bias of the effectiveness of teacher discussion after the film presentation.

The writer transferred the two test scores of each subject onto computer cards with the four subscores identified (peer, family, school and general). Also identified was the geographical state the subject resided in and if he belonged to the control or experimental group.

Statistical Analysis

The statistical design selected was a randomized control-group pretest-posttest design (79, p. 261).

Randomly Assigned	Pretest	Treatment	Posttest
(R) Experimental Group	T_{1E}	X	T_{2E}
(R) Control Group	T_{1C}		T_{2C}

Experimental Group = $T_{2E} - T_{1E} = D_E$ (Difference between pretest and posttest means scores)

Control Group = $T_{2C} - T_{1C} = D_C$ (Difference between pretest and posttest means scores)

T_E = Experimental Group

T_C = Control Group

This design controls unknown or extraneous variables (e.g. room temperature, time of day) and therefore controls potential internal invalidity.

Extraneous variables that arise between T_1 and T_2 are balanced out by the presence of a randomized control group. The contemporary historical events

and other changes that occur between T_1 and T_2 are experienced by all groups; hence the effects of these variables are equalized and cannot be mistaken in the effect of the treatment ("Inside/Out" program). This design allows for maturation through pretest, and also statistical regression.

It is possible to make generalizations from this study by:

1. Burying the pretest and posttest in the routine school testing program.
2. Not allowing the students to know they are in an experiment.
3. Having the regular teacher present the treatment normally.

These three criteria were satisfied in the design of this study.

The pretest was given to the experimental and control groups during the first week of school (approximately September 2-5, 1974). The treatment was administered weekly by the regular teacher from the second week in September until the week before Christmas vacation. The posttest was administered to the treatment and control groups during the week preceding the Christmas vacation 1974 (approximately December 18-22).

The Statistical Design

The statistical design utilized the following math model:

$$Y_{ijkl} = \mu + T_i + S_i + ST_{ij} = C_{(ij)k} + \sum$$

where Y_{ijkl} is the posttest pretest difference score for the subject #K who received treatment i where treatment = i = 1, and control or no treatment = i = 2. μ is the average "response" of all subjects. S signifies which state

(Oregon, Washington, or Utah) the subject resides in, * T means treatment group, and C signifies the class the subject resides in. The letter i signifies experimental or control group, j represents geographical state, k represents class and d represents people within a class. ϵ signifies the experimental error.

Procedure in Treating Data

1. The principal hypothesis of this study was that there would be no significant difference between the experimental and control group's mean gain scores on self-concept as measured by the Self Appraisal Inventory--Intermediate Level. An analysis of variance and an analysis of covariance was used to test this hypothesis using the pre- and posttest scores of the Self Appraisal Inventory--Intermediate Level. Statistical significance of F-values at the .05 level of confidence was used for determining acceptance of this null hypothesis.

2. The second hypothesis of this study was that there will be no significant difference between the mean gain scores on subscores (peer, family, scholastic and general) of self-concept as measured by the Self Appraisal Inventory--Intermediate Level. This hypothesis was tested by using a multivariate analysis of variance on the data collected from the pre- and posttest scores on the Self Appraisal Inventory--Intermediate Level. Statistical

*It is important to note that the section of the math model, which reads $S_i + ST_{ij}$, compares the scores of the states, and state-treatment interactions. These statistics are only a minor part of the study and are discussed in Appendix IX.

significance for the U-value at the .05 level of confidence was tested for.*

*The statistical design also measured any statistically significant differences among the three states' mean gain scores, and significant interaction between groups and states on mean gain scores on self-concept as measured by the Self Appraisal Inventory--Intermediate Level. This information is not of major importance to the study, and is therefore presented in Appendix IX.

IV. RESULTS OF THE STUDY

The purpose of this study was to determine the effects of the "Inside/Out" Health Film Series on the self-concepts of fifth-grade students. This study also investigated whether there seems to be a unidimensional self-concept or a multidimensional self-concept among fifth-grade students, as related to the effects of this health education film series.

Two important considerations were made at the inception of this study:

1. Other studies supported the fifteen weeks time span for significant self-concept change. It should be noted however that the literature stresses that self-concept is slow to change. The Self Appraisal Inventory--Intermediate Level pretest was administered in September 1974. Posttest data were gathered in late December, 1974.

2. Due to the rapid expanding of the use of the "Inside/Out" series it will become harder to locate control schools within states in subsequent years. It was felt that those aspects of evaluation requiring an experimental control design needed to be explored immediately while it was possible to have a large control group. Therefore the investigator had to rely on the selected teachers to administer the tests equally as they followed specific instructions from the investigator.

3. Many of the "Inside/Out" films stress understanding (e.g., understanding strong emotion). It is important to recognize that understanding may not equal persuasion. The treatment topics may only be indirectly related to a change in students' self-concepts.

Discussion of the Findings

The investigator employed a quasi-experimental design which seemed to incorporate the most control under the existing circumstances of the study. Complete randomness was not possible so a pretest was administered to act as the covariate. This meant that with the administration of the posttest, the T_2 means was adjusted to compensate for the lack of equivalency between the two groups.

Table IV shows the correlations between the pretest mean scores and the posttest mean scores on the Self Appraisal Inventory for the total sample used in the study. The Instructional Objectives Exchange reported a correlation of 0.88 whereas the writer found a .62 correlation. Although this correlation is statistically significant, it is somewhat lower than the findings of I. O. X. While one would expect this correlation to be reduced by statistically significant treatment effects, no treatment effects were found in this study. This lower correlation coupled with no treatment effects indicates reliability of the instrument. Unreliability would reduce the validity of the study.

TABLE IV. CORRELATIONS BETWEEN THE PRETEST AND POSTTEST
MEAN SCORES ON THE SELF APPRAISAL INVENTORY--
INTERMEDIATE LEVEL FOR TOTAL SAMPLE

State	N	Pretest Means	Posttest Means	Pre-Post S. A. I. Correlations
Oregon	113	52.253	50.141	** .56
Utah	158	51.340	50.374	** .71
Washington	139	52.793	49.861	** .51
Total	410	52.129	50.376	** .62

Table V shows great similarity in estimated mean self-concept sub-scores and total scores between the experimental and control group. The differences here are no more than that expected by chance, which will be statistically shown in Table VI. The average total estimated mean score for both groups is 52.123, which is quite high out of a possible 77 points. This high average mean score may effect the sensitivity of the statistical test to show statistically significant changes in self-concept. There is much less room for improvement when the average mean score on the pretest is so high.

Table VI shows the differences of the subtest scores to be statistically nonsignificant. This means that the experimental and control group shows a statistically significant similarity on the pretest. This finding adds to the validity of the study, for the experimental and control group should start out as similar as possible.

TABLE V. THE PRETEST ESTIMATED MEAN SCORES FOR EACH OF THE SELF-CONCEPT SUBTESTS FOR THE TREATMENT AND NON-TREATMENT GROUPS ON THE SELF APPRAISAL INVENTORY--INTERMEDIATE LEVEL

Source	Level	N	Peer Subtest Estimated Means	Family Subtest Estimated Means	Scholastic Subtest Estimated Means	General Subtest Estimated Means	Total Estimated Means
Treatment	Experimental	205	12.120	13.852	13.672	13.419	53.067
	Control	205	11.844	13.491	12.880	12.974	51.190

TABLE VI. ANALYSIS OF VARIANCE ON THE PRETEST SUBTEST SCORES FOR THE TREATMENT AND NON-TREATMENT GROUPS ON THE SELF APPRAISAL INVENTORY--INTERMEDIATE LEVEL

Dependent Variable	Source	Degrees of Freedom	Mean Square \bar{X}	F-Value	Probability
Peer Subtest	Treatment	1	19.034	0.583	*N. S.
	Classes	12	32.633	2.218	** .01
	Error	415	14.716		
Family Subtest	Treatment	1	21.004	1.599	N. S.
	Classes	12	13.137	1.991	N. S.
	Error	415	6.614		
Scholastic Subtest	Treatment	1	90.056	1.818	N. S.
	Classes	12	49.545	5.290	.01
	Error	415	9.3674		
General Subtest	Treatment	1	35.742	1.354	N. S.
	Classes	12	34.523	4.432	.01
	Error	415	7.7894		
Total Test	Treatment	1	598.60	1.310	N. S.
	Classes	12	463.16	4.739	.01
	Error	415	97.743		

*Non-significant at the .05 level of confidence.

**Significant at the .01 level of confidence.

The peer, scholastic, general and total subtests for classes do show a significant F-value, with the family subtest approaching significance. This means there were significant differences between the individual classes within the experimental and control group. Although this is not a crucial statistical problem, greater homogeneity between the classes could possibly give a more

sensitive statistical test in showing any self-concept change. This would not, however, guarantee any differences between the experimental and control group on the posttest.

Table VII shows slight losses in the self-concept subscores on the posttest. The writer could find no information in the literature which discussed the general effect of school on student self-concept during the fall semester. The literature does discuss educational programs which are designed to retard the development of negative self-concepts (15). Some loss of a self-concept measurement score during the school year may well be a usual phenomenon, and should be researched further.

The experimental group showed a larger loss in self-concept score than did the control group. It is shown in Table VIII, however, that the differences in mean score losses on the posttest for the experimental and control group are not significantly different.

This table shows an analysis of variance on the mean gain scores of the posttest. The majority of changes in mean gain scores between the pretest and posttest are nonsignificant and can be accounted for by chance. The total classes F-value was significant at the .05 level. This means that there was significant fluctuation on mean gain scores among the classes within each of the groups. The classes' mean square (\bar{X}) figure is used as the denominator to calculate F-values. Had this figure been smaller (signifying less fluctuation of mean gain scores among the classes in each of the groups), the F-test would

TABLE VII. LOSSES BETWEEN THE PRE- AND POSTTEST SCORES ON THE ESTIMATED MEAN SCORES FOR THE TREATMENT AND NON-TREATMENT GROUPS ON THE SELF APPRAISAL INVENTORY--INTERMEDIATE LEVEL

Source	Level	N	Peer Subtest Estimated Mean Loss	Family SEM Loss	Scholastic SEM Loss	General SEM Loss	Total EM Loss
Treatment	Experimental	205	-0.9337	-0.3079	-0.4925	-0.6473	-2.3865
	Control	205	-0.5759	-0.4705	-0.1594	-0.4148	-1.6205

TABLE VIII. ANALYSIS OF VARIANCE ON THE POSTTEST SUBTESTS' MEAN GAIN SCORES FOR THE TREATMENT AND NON-TREATMENT GROUPS ON THE SELF APPRAISAL INVENTORY--INTERMEDIATE LEVEL

Dependent Variable	Source	Degrees of Freedom	Mean Square \bar{X}	F-Value	Probability
Peer Subtest	Treatment	1	19.034	0.4867	*N. S.
	Classes	12	42.645	1.664	N. S.
	Error	415	25.628		
Family Subtest	Treatment	1	21.004	1.8030	N. S.
	Classes	12	11.648	1.0290	N. S.
	Error	415	11.315		
Scholastic Subtest	Treatment	1	90.056	2.2190	N. S.
	Classes	12	30.835	2.378	N. S.
	Error	415	12.967		
General Subtest	Treatment	1	35.742	1.159	N. S.
	Classes	12	30.835	2.378	N. S.
	Error	415	12.967		
Total Test	Treatment	1	598.60	1.4090	N. S.
	Classes	12	424.89	2.739	** .05
	Error	415			

*Non-significant at the .05 level of confidence.

**Significant at the .05 level of confidence

have been more statistically sensitive in showing significant differences on the mean gain scores.

Analysis of covariance procedures, using the pretest mean scores as covariate, were utilized to adjust the means displayed in Table V. The analysis of covariance adjusts the posttest mean scores to compensate for a lack of original equivalency between the experimental and control group. The change in self-concept subscores were small and very similar. It is interesting to

TABLE IX. THE POSTTEST ADJUSTED ESTIMATED MEAN SCORE LOSSES FOR THE TREATMENT AND NON-TREATMENT GROUPS ON THE SELF APPRAISAL INVENTORY--INTERMEDIATE LEVEL, USING THE PRETEST AS COVARIATE

Source	Level	N	Peer Subtest Estimated Mean Loss	Family SEM Loss	Scholastic SEM Loss	General SEM Loss	Total EM Loss
Treatment	Experimental	205	-0.8275	-0.2064	-0.1731	-0.5023	-1.7563
	Control	205	-0.7186	-0.6525	-0.5425	-0.6308	-2.4920

note that the control group now shows a larger loss in self-concept score than the experimental group. Table X shows, however, that the losses for the experimental and control group are not significantly different,

TABLE X. ANALYSIS OF VARIANCE ON THE POSTTEST SUBTESTS' MEAN GAIN SCORES WITH THE PRETEST AS COVARIATE FOR THE TREATMENT AND NON-TREATMENT GROUPS ON THE SELF APPRAISAL INVENTORY--INTERMEDIATE LEVEL

Dependent Variable	Source	Degrees of Freedom	Mean Square \bar{X}	F-value	Probability
Peer Subtest	Mean	1	266.970	14.278	** .01
	Treatment	1	1.7477	0.0935	*N. S.
	Classes	12	18.697	1.363	N. S.
	Error	415	13.719		
Family Subtest	Mean	1	73.998	11.198	.01
	Treatment	1	1.7048	0.2580	N. S.
	Classes	12	6.6084	0.9128	N. S.
	Error	415	7.2398		
Scholastic Subtest	Mean	1	56.926	4.791	.05
	Treatment	1	14.100	1.1870	N. S.
	Classes	12	11.882	1.3740	N. S.
	Error	415	8.6477		
General Subtest	Mean	1	137.500	14.862	.01
	Treatment	1	1.9853	0.2146	N. S.
	Classes	12	9.2519	1.179	N. S.
	Error	415	7.850	15.391	.01
Total Test	Mean	1	1959.00	15.391	.01
	Treatment	1	58.161	0.4570	N. S.
	Classes	12	127.28	1.388	N. S.
	Error	415	91.731		

*Non-significant at the .05 level of significance.

**Significant at the .01 level of confidence.

This table shows the variance for the mean gain scores when the pretest is used as the covariate. The means of the peer, family, general and total self-concept subscores were all significant at the .01 level, with the scholastic subscore being significant at the .05 level. This showed a significant amount of "within-groups" variance. The investigator expected this finding and would have been surprised to find the "within-groups" variance nonsignificant. This finding shows a range of students' self-concept scores within each of the eighteen classes in the population sample. It is important to note that "within-groups" (within-class) are free from treatment effect.

TABLE XI. ANALYSIS OF VARIANCE ON THE POSTTEST SUBTESTS' MEAN GAIN SCORES WITH THE PRETEST AS COVARIATE FOR THE TREATMENT AND NON-TREATMENT GROUPS ON THE SELF APPRAISAL INVENTORY-INTERMEDIATE LEVEL

Dependent Variable	Source	Degrees of Freedom	Mean Square	F-value	Probability
Peer	Treatment	1	1.7477	0.0935	*N. S.
Family	Treatment	1	1.7084	0.2580	N. S.
Scholastic	Treatment	1	14.100	1.187	N. S.
General	Treatment	1	1.9853	0.2146	N. S.
Total	Treatment	1	58.161	0.4570	N. S.

*N. S. = Non-significant at the .05 level of significance.

The first null hypothesis stated that there would be no significant difference between the experimental and control group's mean gain scores on self-concept as measured by the Self Appraisal Inventory--Intermediate Level. Table VII shows that for the treatment groups, all F-values for the peer, family, scholastic, general and total subtests are non-significant at the .05 level. This null hypothesis, therefore, cannot be rejected. This means there was no significant difference found on mean gain scores between the experimental and control group after the experimental group had received the treatment.

The second null hypothesis concerned itself with the theoretical issue of self-concept as a unidimensional or multidimensional construct. It stated that there will be no significant difference between the mean gain scores on subscores (peer, family, scholastic and general) of self-concept as measured by the Self Appraisal Inventory--Intermediate Level.

Table XII shows a slight variance among the pretest subtests for the treatment and control groups. The F-values are not significant at the .05 level however. This suggests that the subtests do not vary significantly and are evenly spread over the total self-concept score on the Self Appraisal Inventory--Intermediate Level. This finding supports the unidimensional self-concept construct theory, but does not directly test null hypothesis two.

TABLE XII. ANALYSIS OF VARIANCE ON THE PRETEST SUBTEST SCORES FOR THE TREATMENT AND NON-TREATMENT GROUPS ON THE SELF APPRAISAL INVENTORY--INTER-MEDIATE LEVEL

Dependent Variable	Source	Degrees of Freedom	Mean Squares	F-Value	P
Peer	Treatment	1	19.034	0.583	*N. S.
Family	Treatment	1	21.004	1.599	N. S.
Scholastic	Treatment	1	90.056	1.818	N. S.
General	Treatment	1	35.742	1.354	N. S.
Total	Treatment	1	598.60	1.310	N. S.

*N. S. = Non-significant at the .05 level of significance.

The multivariate analysis of variance compares the mean gain scores for the four subtests simultaneously to see if one subtest varied more than the others in mean gain score over the experimental and control groups. No one subtest was found to vary significantly more than any other subtest on mean gain score. The null hypothesis cannot be rejected at the .05 level. This suggests that self-concept is distributed evenly over the subtests and gives support to the unidimensional construct of self-concept.

TABLE XIII. THE MULTIVARIATE ANALYSIS OF VARIANCE SCORES FOR THE SUBSCORES (PEER, FAMILY, SCHOLASTIC, GENERAL AND TOTAL) ON THE SELF APPRAISAL INVENTORY--INTERMEDIATE LEVEL

Source	Degrees of Freedom	U-Statistic	Critical U at .05 level	Probability
Treatment	1	0.66808	0.302608	*N. S.
Classes	12	0.85339	0.83650	N. S.

*Non-significant at the .05 level of confidence.

Summary

The following table is a summary of the statistical findings as they relate to the two null hypotheses in this study.

TABLE XIV. SUMMARY TABLE ON THE TWO NULL HYPOTHESES, CONCERNING MEAN GAIN SCORES ON THE SELF APPRAISAL INVENTORY, AS TESTED IN THIS STUDY

Hypotheses	F-Value	U-Value	Probability
1. No significant difference between treatment groups	1.4570		*N. S.
2. No significant difference between subscores of the self-appraisal inventory	0.259		N. S.
2a. Between treatment groups		0.3026	N. S.

*Non-significant at the .05 level of significance.

The null hypothesis concerning the main effect that there would be no significant difference between the experimental and control group's mean scores on self-concept was not rejected.

The second null hypothesis, concerning the theoretical issue of a unidimensional or multidimensional self-concept construct, stated that there would be no significant difference between the mean gain scores on subscores of self-concept. It was tested using a multivariate analysis of variance and not rejected when the F-values failed to meet statistical significance.

V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The major purposes of the study were to determine the effects of the "Inside/Out" Health Film Series on the self-concepts of fifth-grade children, and to investigate whether self-concept is a unidimensional or multidimensional construct.

A review of the literature revealed that a positive self-concept is very important to a healthy, functioning individual. It was shown that self-concepts may be changed or modified, and that educators may be successful in aiding this change toward a more healthy, positive self-concept. Research studies on film and self-concept were found to be minimal but promising, with some significant changes being made. The literature gave support to the need for this study.

Certain assumptions and limitations were made concerning the study. It was assumed, after an extensive review of literature, that self-concept is quantitatively measurable and that a time period of fifteen weeks would be long enough to detect some self-concept changes. Concerning limitations, much of the self-concept construct is unknown and instruments for measuring self-concept have not yet been refined for complete accuracy. The investigator was dependent upon the limited number of subjects reporting their true feelings about self. The programming of the "Inside/Out" series was done by the

State Educational T.V. organization, and the quality and amount of discussion were controlled by the teacher in each class.

The experimental design utilized in the study was a posttest control group design, which adjusted for interactions which were already present in the population sample. A random sample of 452 fifth-grade students from a total population of eighteen schools, identified as having similar cost per student and access to educational T.V., was selected. A questionnaire concerning affective programs was also sent to an administrator in each school district to further attempt to equalize the population (see Appendix III). Half of the sample selected was subjected to nineteen films of the "Inside/Out" Health Film Series (the films used are identified in Appendix VII). The other half, or control group, were not subjected to the "Inside/Out" program. The time period of the study was from September through December, 1974. A self-report instrument, which served as a pre- and posttest, was used to assess any self-concept change during the study period. This instrument was the Self Appraisal Inventory--Intermediate Level, reported by Instructional Objectives Exchange as being a tested, reliable instrument.

After the treatment period had concluded, an analysis of covariance was computed to test differences in the Self Appraisal Inventory posttest mean gain scores between the experimental and control group. The pretest was used as the covariate. A multivariate analysis of variance was computed on the five subscores of the Self Appraisal Inventory (peer, family, scholastic, general, and total) to determine if any changes in self-concept resulted in support for a unidimensional or multidimensional self-concept

construct.

Statistical analysis provided no basis for contending that differences between the experimental ("Inside/Out") and control groups resulted from any source other than chance or experimental error. Nonsignificant F-values showed no significant differences between the experimental and control groups on mean gain self-concept scores. The results of analysis of variance and multivariate analysis of variance to test mean gain score differences on the subscores gave support to a unidimensional self-concept construct. The variance between groups reached a significance at the .05 level, which showed a significant difference between the class means. This could possibly have clouded the statistical results by causing a less sensitive statistical test.

Conclusions

As was outlined in the literature, research indicates that under certain conditions self-concept programs will produce significant increases in self-concept. This study attempted to measure if subjection to the "Inside/Out" Health Film Series would promote a positive change in self-concept. However, no such advantage was found, and the question naturally asked is "why"? There are several possible explanations for the results.

The first possible explanation is that the test instrument may not have had the necessary power to detect differences. Considering that the average mean score on the pretest was 52.123, the instrument may have had too low a ceiling (77 points) and not been sensitive enough to detect change. There

would not be as good a chance to show gain because the average mean scores were so high.

A second possible explanation is that the study was directed toward a population sample who generally had positive self-concepts and did not need a significant change in self-concept. It is suggested in the literature that self-concept measuring scales are somewhat insensitive. A minority of students with significant self-concept problems could have made significant self-concept changes that were statistically overshadowed by the total population problem sample. Banks gave support to this idea in his study. He found no significant self-concept change from treatment in his total population sample, but he did find a significant self-concept change at the .01 level for Black students (4).

The third possibility is that the study dealt with an insufficient time span. The theoretical literature suggests that self-concept is consistent (67) and is built up slowly over a period of time (5). The Florida Educational Research and Development Council measured perceptible changes toward more positive self-concepts over a period of many months (66). However, other studies which have shown significant self-concept changes have used time periods ranging from six months to six weeks. Coleman's study used a six-month time span to show a significant reduction at the .01 level for negative self-concept responses (15). Rupp measured self-concept enhancement at the .05 level of significance in a time span of one college quarter (70). Banks found a significant self-concept change among black students at the .10 level

during a fifteen week treatment period (4). Jasik used a six-week period to conclude that "self-concept at the kindergarten level may well be modified by classroom experience" (49). Although the literature here does show some conflict, there is enough evidence from previous studies for the investigator to minimize this possibility.

Fourth, it may be argued that no significant differences were found because in this situation the "Inside/Out" series did not in fact cause any differences. While this would be the easiest explanation to accept, it would overstep the bounds of statistical analysis. It can only be concluded that the analysis did not detect any treatment differences in regard to the usefulness of the "Inside/Out" series in effecting positive self-concept change.

Whatever the true explanation, further study is necessary before a definitive conclusion can be made.

The second major purpose of the study was to investigate whether self-concept was a unidimensional or multidimensional construct. The statistical analysis showed that the Self Appraisal Inventory subtests (peer, family, scholastic and general) did not vary significantly more than any other subtest on mean gain score. These findings support the unidimensional self-concept construct. In view of this, an important consideration needs to be examined.

Gergen (36) states that the unidimensional construct is not supported by his findings. It is very difficult to compare Gergen's research with the present research. The most the investigator can do is conclude that the

results of this study refute Gergen's research. It may be that the multidimensionality or unidimensionality of self-concept fluctuates with age. Self-concept may possibly be more multidimensional in the early years of development when the personality is in the earlier developmental stages. As the personality begins to become more stable during the late elementary and early teenage years, self-concept may become more unidimensional.

It has been shown that self-concept becomes more stable and resistant to change in older age. Campbell's study, for example, found that self-concept was more positively affected due to achievement in the fourth and fifth grades than in the sixth grade (12). This whole discussion is, however, speculative on the part of the researcher. Certainly, with the small amount of research completed on this theoretical consideration, more research is called for.

Another finding of the study was a statistically significant amount of "within-groups" variance. This means that each class had a significantly different spread of self-concept scores on the subtests and the total score. While this finding is not dramatic and does agree with the literature, it does add evidence to the fact that many students in the schools have poor self-concepts. The investigator speculates that if the variables causing significant variation of self-concept within classes can be isolated, educators could develop programs which would take advantage of the positive variables and modify the negative variables, thus producing positive self-concept growth in the students who have more negative self-concepts.

A final conclusion deals with the correlation found between the pre- and posttest on the Self Appraisal Inventory--Intermediate Level. This study found a lower pre-posttest correlation (.62) than that of I. O. X. (.88). The lower correlation plus the fact that no treatment effect was found indicates some unreliability of the Inventory.

In light of the findings of this study, it may be illogical to expect any significant change in self-concept in a random population of students from viewing and discussing a group of films over a short period of time. It is concluded by the investigator that this study is a limited effort to study an immensely complex problem.

Recommendations

Since no single study could pretend to definitively identify all the specific effects the "Inside/Out" Health Film Series may have on student self-concepts, it would be appropriate to suggest further research which would build upon the findings presented in this study. One possible extension of this study would be to replicate it, using a different population of students. A lower age group, for example, might show greater self-concept benefits from the "Inside/Out" program than the present population seemed to.

The investigator also recommends that the effects of the "Inside/Out" series be measured on a population of students with marked negative self-concepts. These students could be identified as those having low self-concept scores (i.e., below 38) on the Self Appraisal Inventory. These students

would have more chance to show gain because of lower pretest mean scores. By "raising" the numerical ceiling, this would "sensitize" the instrument to measure statistically significant differences if they were to occur. The writer found that 51 students in the population of 410 had scores under 40 on the Self Appraisal Inventory. Of those students, 11 had very little gain, but 40 students had an average gain of 22.5 points. Although no statistical test was put upon this increase, it is a very noteworthy gain.

Two more recommendations would be to use other types of instruments to test the effects of the "Inside/Out" program; instruments that might be more sensitive to small self-concept changes, and to utilize a longer time period for the study (i. e. one school year), during which the total "Inside/Out" series would be shown. A corrolary to this study would be to examine the effects of school attendance upon the self-concept at different times during the year to assess any fluctuation pattern.

This study has examined only the general effects of the "Inside/Out" Health Film Series. It should be noted that the National Instructional Television Center, which developed "Inside/Out" emphasizes the relationship of the teacher and a relaxed classroom atmosphere to the success of the "Inside/Out" program. The literature discusses the very important part the teacher plays in the development and change of students' self-concepts. It also states that "Inside/Out" relies on student listening, valuing and decision making. It is highly recommended that the teacher as variable be studied. It is recommended that these specific variables be closely examined individually by definitive,

experimental studies with greater control than was possible in the present study. A suggestion to increase control would be to so design the study that the investigator(s) would have more personal access to each class, and more control over the treatment, than in the present study.

A final recommendation calls for definitive studies on whether self-concept is a unidimensional or multidimensional construct, or whether this construct fluctuates with age and maturity. This type of study would demand an instrument sensitive enough to measure differences in different dimensions of self-concept. If the unidimensional self-concept construct is supported by further studies, the investigator would speculate that positive self-concept development could be effected by a general, overall educational program aimed at the "whole man" rather than by a specific or narrow program aimed at individual, suggested self-concept dimensions.

It is hoped that the current study has elucidated some of the factors that determine the effects of the "Inside/Out" Health Film Series on student's self-concept. It is also hoped that this investigation will spawn future studies which will enlighten educators on their potentially effective role of helping students develop positive self-concepts.

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APPENDICES

APPENDIX I



OREGON STATE UNIVERSITY

Committee for Protection of Human Subjects

Chairman's Summary of Review

Title: "The Immediate Effect of the Inside/Out Health Film Program Upon
Self-Concept Development of Fifth Grade Students"

Program Director: Arthur Koski

Recommendation:

- ☒ X Approval
☐ Provisional Approval
☐ Disapproval
☐ No Action

Remarks: Confidentiality of students' replies must be stressed to the
participating teachers. No individual student identification should appear on
either pre- or posttest. Counselors at the school should be included in the
school's consent procedure.

Date: August 9, 1974

Signature: Donald L. Mac Donald

If the recommendation of the committee is for provisional approval or disapproval, the program director should resubmit the application with the necessary corrections within one month.

APPENDIX II

SELF APPRAISAL INVENTORY

Intermediate Level

Directions:

Please show whether each statement in this booklet is true or untrue for you by marking one of the spaces on the answer sheet.

	True	Untrue	
For example:	<u> X </u>	<u> </u>	1. I like cherry pie.
	<u> </u>	<u> X </u>	2. I want to be a movie star.

There are no right or wrong answers, so respond to each statement as honestly as you can.

Do not write your name on the answer sheet. Do not write on the booklet.

1. Other children are interested in me.
2. School work is fairly easy for me.
3. I am satisfied to be just what I am.
4. I should get along better with other children than I do.
5. I often get in trouble at home.
6. My teachers usually like me.
7. I am a cheerful person.
8. Other children are often mean to me.
9. I do my share of work at home.
10. I often feel upset in school.
11. I'm not very smart.
12. No one pays much attention to me at home.
13. I can get good grades if I want to.
14. I can be trusted.
15. I am popular with kids my own age.
16. My family is not very proud of me.
17. I forget most of what I learn.
18. I am easy to like.
19. Girls seem to like me.
20. My family is glad when I do things with them.
21. I often volunteer to do things in class.
22. I'm not a very happy person.
23. I am lonely very often.
24. The members of my family don't usually like my ideas.
25. I am a good student.
26. I can't seem to do things right.
27. Older kids like me.
28. I behave badly at home.
29. I often get discouraged in school.

30. I wish I were younger.
31. I am friendly toward other people.
32. I usually get along with my family as well as I should.
33. My teacher makes me feel I am not good enough.
34. I like being the way I am.
35. Most people are much better liked than I am.
36. I cause trouble to my family.
37. I am slow in finishing my school work.
38. I am often unhappy.
39. Boys seem to like me.
40. I live up to what is expected of me at home.
41. I can give a good report in front of the class.
42. I am not as nice looking as most people.
43. I have many friends.
44. My parents don't seem to be interested in the things I do.
45. I am proud of my school work.
46. If I have something to say, I usually say it.
47. I am among the last to be chosen for teams.
48. I feel that my family doesn't usually trust me.
49. I am a good reader.
50. I can usually figure out difficult things.
51. It is hard for me to make friends.
52. My family would help me in any kind of trouble.
53. I am not doing as well in school as I would like to.
54. I have a lot of self control.
55. Friends usually follow my ideas.
56. My family understands me.
57. I find it hard to talk in front of the class.
58. I often feel ashamed of myself.

- 59. I wish I had more close friends.
- 60. My family often expects too much of me.
- 61. I am good in my school work.
- 62. I am a good person.
- 63. Others find me hard to be friendly with.
- 64. I get upset easily at home.
- 65. I don't like to be called on in class.
- 66. I wish I were someone else.
- 67. Other children think I am fun to be with.
- 68. I am an important person in my family.
- 69. My classmates think I am a poor student.
- 70. I often feel uneasy.
- 71. Other children often don't like to be with me.
- 72. My family and I have a lot of fun together.
- 73. I would like to drop out of school.
- 74. Not too many people really trust me.
- 75. My family usually considers my feelings.
- 76. I can do hard homework assignments.
- 77. I can't be depended on.

SELF APPRAISAL INVENTORY

Intermediate Level

Description and Rationale

This inventory consists of seventy-seven statements to which students respond "true" or "untrue" to indicate whether each statement is true or untrue about them. The statements may be read independently by the students or orally by the teacher, depending on the students' reading abilities.

This self report device attempts to secure in a rather straightforward fashion, a child's responses to question which pertain to four aspects of the self concept. Three of these four dimensions (family, peer, scholastic) are viewed as arenas in which one's self concept has been (or is being) formed. A fourth dimension reflects a more general, global estimate of self esteem. Examples of each dimension (for which subscale scores are obtainable in the inventory) are: (1) General: "I can always be trusted." (2) Family: "I often get into trouble at home." (3) Peer: "Most children have fewer friends than I do." (4) Scholastic: "School work is fairly easy for me." From these examples it can be seen that if a child wished to answer untruthfully, in such a way that he would be viewed in a better light, it would not be too difficult to do so. Such tendencies to supply false responses can be minimized by administering the inventory in such a way that the anonymity of the respondent is both real and perceived.

Items which represent each subscale within the Self Appraisal Inventory are as follows:

Peer: Items 1, 4, 8, 15, 19, 23, 27, 31, 35, 39, 43, 47, 51,
55, 59, 63, 67, 71, 74.

Family: Items 5, 9, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48,
52, 56, 60, 64, 68, 72, 75.

School: Items 2, 6, 10, 13, 17, 21, 25, 29, 33, 37, 41, 45,
49, 53, 57, 61, 65, 69, 73, 76.

General: Items 3, 7, 11, 14, 18, 22, 26, 30, 34, 38, 42, 46,
50, 54, 58, 62, 66, 70, 77.

Directions for Administration

The Self Appraisal Inventory, Intermediate Level, may be administered in three ways, depending upon the objective(s) of interest:

1. The entire measure may be used, and a single score obtained, yielding a global estimate of self concept.
2. The entire measure may be administered, but subscales (peer, family, school, general) relating to the various dimensions scored separately, yielding information regarding each dimension of self concept.

3. Only those subscales representing the dimensions of interest may be administered and scored.

It is expected that students will be able to complete the entire inventory in approximately twenty to thirty minutes. If the administrator feels that the students' reading abilities will prohibit their completing the measure in this time period, the statements should be read orally to the students.

If the instruments are to be hand scored, the answer sheet provided may be used. If machine scoring is available and is to be used, responses should be recorded on the appropriate answer sheets; additional instruction in the use of these answer sheets may be necessary.

After distributing the booklets to the students, carefully read the directions provided with the inventory aloud. Provide ample time for students to ask questions concerning the response procedure.

Emphasize that there are no "right" or "wrong" answers. Remind the students that they are not to write their names on the answer sheets. If additional information is needed from students, for example, their class or school, be sure to have them add this information to the answer sheet.

If students ask questions regarding interpretations of the statements, emphasize that the inventory calls only for general impressions regarding each statement.

Scoring

Scores may be obtained by counting one point for each positive response: that is, for each "true" or "untrue" response which indicates:

1. General favorable perceptions of self (general subscale).
2. Favorable view of self in relations with peers (peer subscale).
3. Favorable view of self in the family context (family subscale).
4. Favorable view of self in school situations, involving school work, teacher, etc. (school subscale).

The positive responses for each subscale are indicated on the scoring guide. For hand scoring, a scoring template may be prepared by punching out each positive response in the scoring guide (for all items, or for only those items in the subscale(s) of interest). The template may then be placed over the student's response sheet, and the number of response appearing through the punched holes recorded.

Average scores for a group of students, for the entire inventory or for a particular subscale, may be computed by summing the scores for all pupils and dividing by the number of pupils in the group.

Dear

I am studying the effects of the "Inside/Out" television program on the self-concept development of fifth grade students. Upon approval of your administration I will be conducting research on this topic in your district. Would you respond to the following questionnaire to help me equalize the research population. The information will remain confidential.

Sincerely,

Keith J. Karren
Department of Health Science
Brigham Young University
Provo, Utah 84601

PLEASE MARK YOUR ANSWER IN THE BOX AND ADD ANY DESIRED COMMENTS UNDER THE ITEM.

- | | Yes | No |
|--|--------------------------|--------------------------|
| 1. Does your district have special programs for self concept development? (e.g. Glasser circle, Majic Circle, Inside Out, etc.) If so, briefly describe the program. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Does your district sponsor sensitivity training for district teachers? Or, have many of your teachers independently engaged in these programs? If so, briefly describe. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Does your district have a special program in Family Life Education? If so, briefly describe. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Does your district have special programs in psychological testing? If so, briefly describe. | <input type="checkbox"/> | <input type="checkbox"/> |

Results of Questionnaire to Equalize the Population

Quest. #	Oregon	Utah	Washington
1.	*A. "Inside/Out" B. Very limited "Glasser Circle"	A. "Inside/Out" B. No	A. "Inside/Out" B. The advisor-ad- visee program focuses on self- concept
2.	A. No B. Not prevalent, only an occa- sional staff meeting	A. No B. No	A. No B. No
3.	A. No B. No	A. No B. No	A. No B. No
4.	A. No B. No	A. Psychologist working in the school B. Psychologist working in the school	A. Only as part of a special -ed program B. Psychological testing focuses on cognitive rather than affec- tive domain

*A = Experimental Group

B = Control Group

APPENDIX IV



Department of Health

Corvallis, Oregon 97331 (503) 754-2686

September 13, 1974

TO WHOM IT MAY CONCERN:

RE: Keith J. Karren's Research With the Inside/Out Health
Film Series

Mr. Keith J. Karren is a doctoral candidate in the Department of Health at Oregon State University. He has successfully completed his comprehensive written and oral examinations and all of his course work toward his degree. Mr. Karren is an excellent student and served as a graduate assistant teaching Personal Health during his year's residence on our campus. He has returned to his full-time teaching position at Brigham Young University and at the same time is completing his research for his dissertation topic.

Mr. Karren's research is of tremendous significance because it is attempting to measure the effects of the new Inside/Out health film program upon self-concept development of fifth grade students. Since the Inside/Out health film series is being utilized so extensively throughout the United States, there is a great need to do research regarding the affects upon the students who will be viewing the programs. I hope that your district will be able to cooperate fully with Mr. Karren in carrying out his research, as I feel the goals are very worthy for not only completing his academic requirements, but for an excellent contribution through evaluation of the film series.

As Mr. Karren's major professor, I would encourage you to contact me if you have any further questions, either by writing or by telephone (Area Code 503 754-2686).

Sincerely,

Arthur Koski, Ed. D.
Professor and Head of Health

mb

APPENDIX V

Dear _____:

You have been selected to participate in what I believe to be an important, relevant research project. As you may be aware, there is a great resurgence in interest in self concept development in the elementary years. I believe this helps to spotlight the important part the elementary school teacher plays in the development of people.

The title of this research project is "The Immediate Effect of the "Inside/Out" program Upon Self Concept Development of Fifth-Grade Students." As you may be aware, "Inside/out" is a new affective approach to education. This research project will try to find out what effect the program has on self concept development. The project has been reviewed by your school administration and found to be acceptable. There are two large groups participating, an experimental group who is using the "Inside/Out" program and a control who is not.

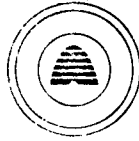
Included are two sets of the "Self-Appraisal Inventory--Intermediate Level," for each of your students in one class. There are two copies for each student. I would ask you to participate with me in the following steps:

1. It is imperative that you include the testing in your normal school program and not call special attention to it. Do not tell the students they are in an experiment.
2. Do not have the student write his name on the test. Preserve anonymity and stress to the students that they will not be identified with their paper. Encourage them to be very honest and react to the items with their own feelings, not what they think would be the socially desirable response.
3. Administer one set of the Inventory during the second week of the Fall term, 1974. Place the answer sheets in one of the enclosed envelopes and drop in the mail. File the test booklets for future use.
4. Administer the test again using the second set of answer sheets during the last week of the Fall term, 1974 (before Christmas recess). Do it in the same fashion as before. After the testing is completed, mail the answer sheets using the enclosed envelope. You are welcome to keep the Inventory booklets.
5. Thank you for your cooperation, I will mail the results of the study to your district in April or May 1975.

Sincerely,

Keith John Karren

APPENDIX VI

*Brigham Young University*

December 3, 1974

Dear .

The past three months have gone by very swiftly. I would again like to thank you for 'participating' in what I believe will be a very important study.

I wish to remind you that the time to administer the post-test is almost here. Please administer it sometime during the last week of school before the Christmas Vacation. I wish to mention a few points of consideration:

- 1) If you have misplaced the Self-Appraisal Inventory booklets or the answer sheets, quickly let me know and I will send you more.
- 2) Review the letter of instructions.
- 3) Have your children answer all questions as best they can and emphasize anonymity of the students.
- 4) If you are part of the experimental group participating in Inside/Out, please include in your return packet a note answering the following questions.
 - a) How many "Inside/Out" films did you show from September thru December?
 - b) What was the average length (in time) of your discussion after each film?
- 5) Please put your return address on the envelope so I can identify your class.
- 6) Please send in the answer sheets (keep the booklets) promptly as I hope to run the statistics the first week in January.
- 7) If you have any problems concerning this study, please phone me collect at 801-489-7453,

You are a vitally important part of this study, and without your co-operation my study would be invalidated. I will look forward to receiving your class responses.

Warmest regards,

Keith J. Karren
Department of Health Science
229 F. Richards Bldg.
Brigham Young University
Provo, Utah 84601

KJK/clm

APPENDIX VII

"INSIDE/OUT FILMS SHOWN TO THE
EXPERIMENTAL GROUPS

1. "Because It's Fun"

The purpose of this film is to help children enjoy the good feelings produced by skillfully engaging in physical activity or by playing for the sheer joy of it. Two main emphases are: personal feelings in relation to physical activity, and helping children understand where they stand personally on the continuum between being passive and highly competitive in physical activity.

2. "How Do You Show"

The purpose of this film is to help children understand how persons express what they are really thinking and feeling, and to help them become aware of how they themselves express feelings in their own ways.

3. "Strong Feelings"

The purpose of this film is to help children develop an awareness and understanding of the effects of strong emotions on the body, and to lessen their fear of these reactions. It is a different approach to the study of body systems, and deals with the physical side of feelings and learning how the body works in relation to feelings.

4. "Must I/May I"

This film helps children recognize that freedom and responsibility are both part of growing up, and helps them deal with the feelings caused by the tension between the two. Interwoven stories show two children dealing with situations that try their growing sense of independence. The emotions they feel as they work through their problems are clearly expressed.

5. "Travelin' Shoes"

The major purpose of this film is to help children consider the experience of moving in relation to the feelings of loss and separation, and of possible gain and improvement that this frequent change in life brings about. The film shows the mixed, strained feelings within a family concerning a coming move.

6. "Just Joking"

This film helps children recognize that "jokes" can often hurt others if the joker is not sensitive to their feelings, and that there is a real difference between "good, clean fun" and ridicule or cruelty.

7. "But Names Will Never Hurt"

The purpose of this film is to help children recognize situations in their own experience in which persons were called names or discriminated against and to help them express and deal with the feelings aroused by prejudice.

8. "Home Sweet Home"

The purpose of this film is to increase children's awareness that human beings often mistreat each other and that children in particular feel mistreated when they are not. The film attempts to help them develop ways of coping with feelings of mistreatment and with mistreatment itself.

9. "Jeff's Company"

This film attempts to help students recognize a man's need to be alone as well as to be with others and to help them discover the value of solitude.

10. "Buy and Buy"

The purpose of this film is to help children make wise decisions in the face of conflicting emotions and group pressure.

11. "Can I Help?"

The purpose of this film is to help children recognize when they can realistically help others in danger, what this kind of help requires, and what the personal consequences may be.

12. "Living With Love"

This film attempts to help children realize the benefits that love produces, to help them recognize how love is expressed, and to help them cope with a lack of love in their lives.

13. "Can Do/Can't Do"

This film attempts to help children recognize and accept the stages of their own growth and development, and to help them deal with the feelings that these changes bring about.

14. "Breakup"

The purpose of this film is to help children recognize and develop some understanding of emotions involved in a separation or divorce, real or imagined.

15. "Someone Special"

The purpose of this film is to help children understand that crushes are a normal part of growth and psychological development, and to help them understand the feelings that such situations create in both children and adults.

16. "I Want To"

This film attempts to help children consider and cope with feelings caused by differences between themselves and adults about what they want to do, are able to do, and are allowed to do.

17. "When Is Help"

This film attempts to enable children to recognize when they should give or receive help, and to assist them in understanding the feelings that result from helping someone or from being helped by another person.

18. "Bully"

The purpose of this film is to help children recognize and cope with harassment, and to help them understand the feelings of violence and terror that bullying situations produce.

19. "But They Might Laugh"

This film attempts to help children recognize and cope with their own fears of humiliation and failure, and to help them understand and sympathize with such feelings in others.

APPENDIX VIII

The following figures give a graphic representation of the closeness of fit of the population groups.

Figure 1 shows the comparing of the Utah, Oregon and Washington samples on the pretest scores of the peer subtest. The groups are very close. Washington experimental and control groups have some distance between them, as do the Utah and Washington experimental groups. Oregon and Washington show the greatest difference between experimental and control groups, but they are not statistically significant.

Figure 2 compares the various components of the population on the pretest scores of the family subtest.

The biggest difference again exists between Oregon and Washington. The control groups for Utah and Oregon are almost equal but the experimental groups are somewhat different.

Figure 3 dramatically shows that the Washington experimental and control groups have the greatest pretest mean score differences between each other and the other two states. Utah and Oregon groups are acceptably similar.

The "General" pretest shows the greatest amount of variation among the states in Figure 4. Washington is again the greatest cause of this variation.

Figure 5 compares the average mean pretest scores of the groups. Washington causes the greatest amount of variation with a six-point spread between the experimental and control groups. Utah and Oregon experimental groups are very close. Some degree of difference is shown between the control

groups.

The investigator had expected some slight differences between and within states, but was surprised at the difference between the Washington experimental and control groups. Even though differences are minimized by the research design used in this study, it would have been preferable to have the Washington experimental and control groups closer.

Figure 1. Interaction between the states and treatment on the pretest estimated mean scores of the peer subtest.

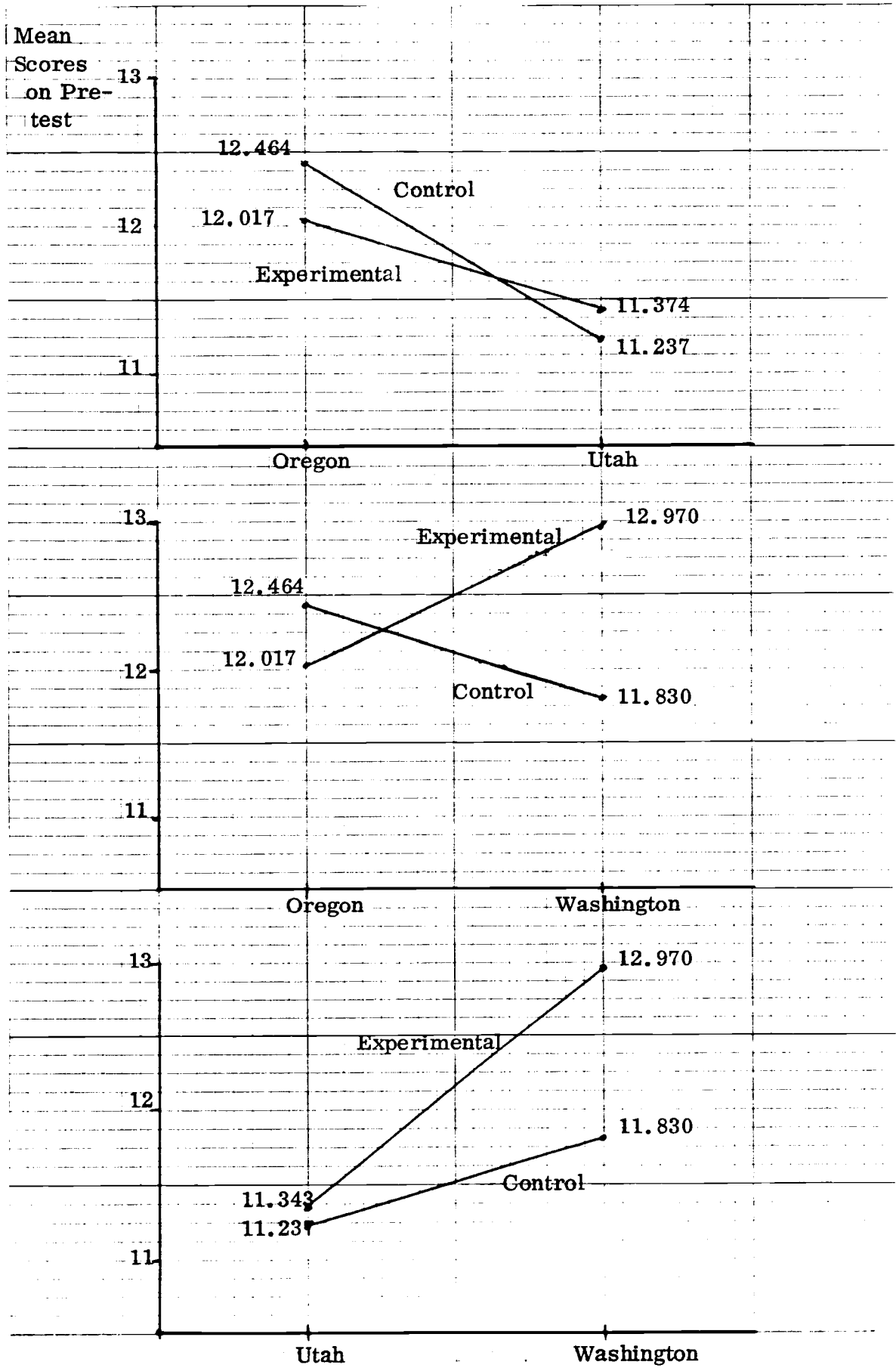


Figure 2. Interaction between the states and treatment on the pretest estimated mean scores of the family subtest.

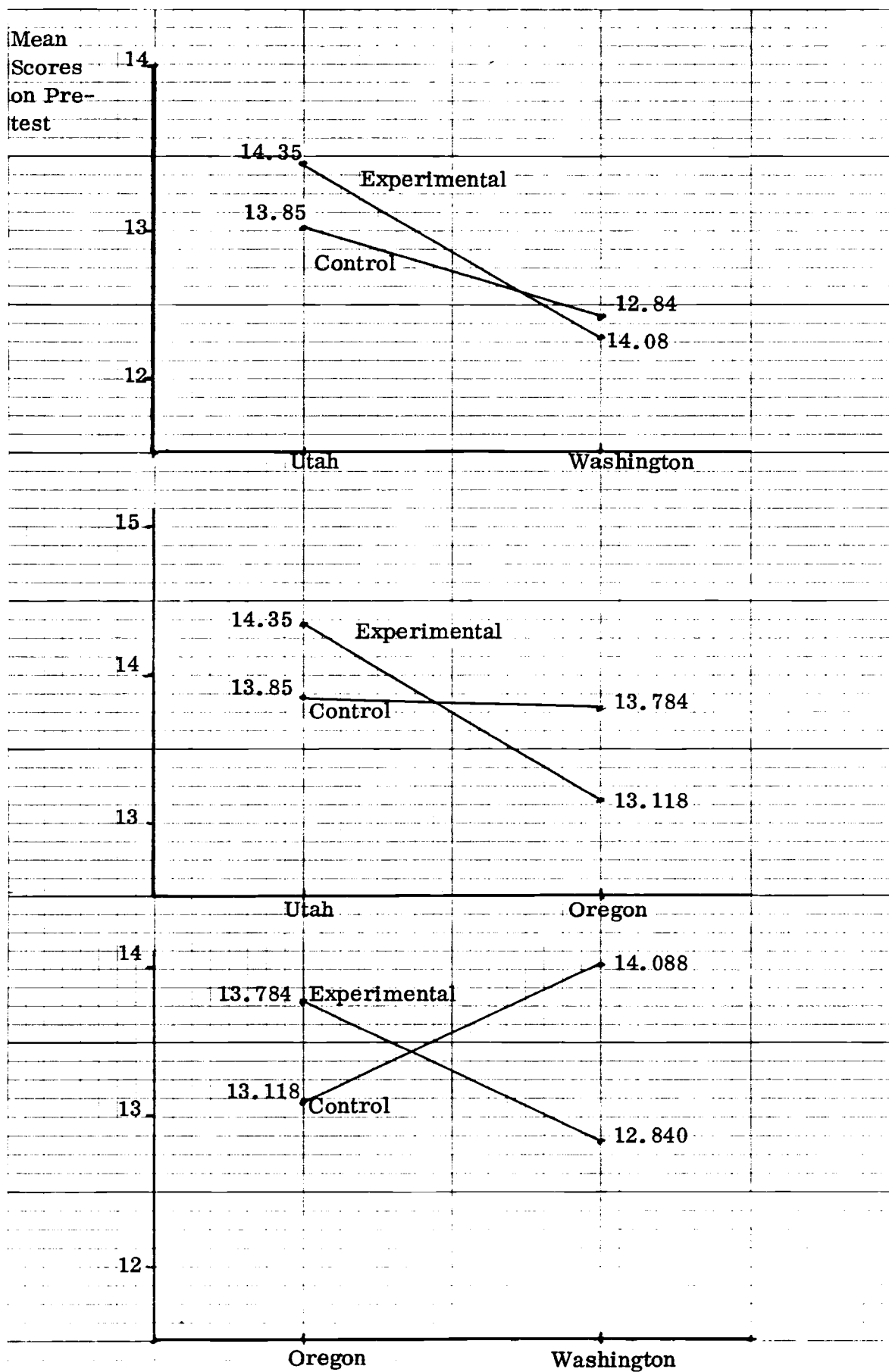


Figure 3. Interaction between the states and treatment on the pretest estimated mean scores of the scholastic subtest.

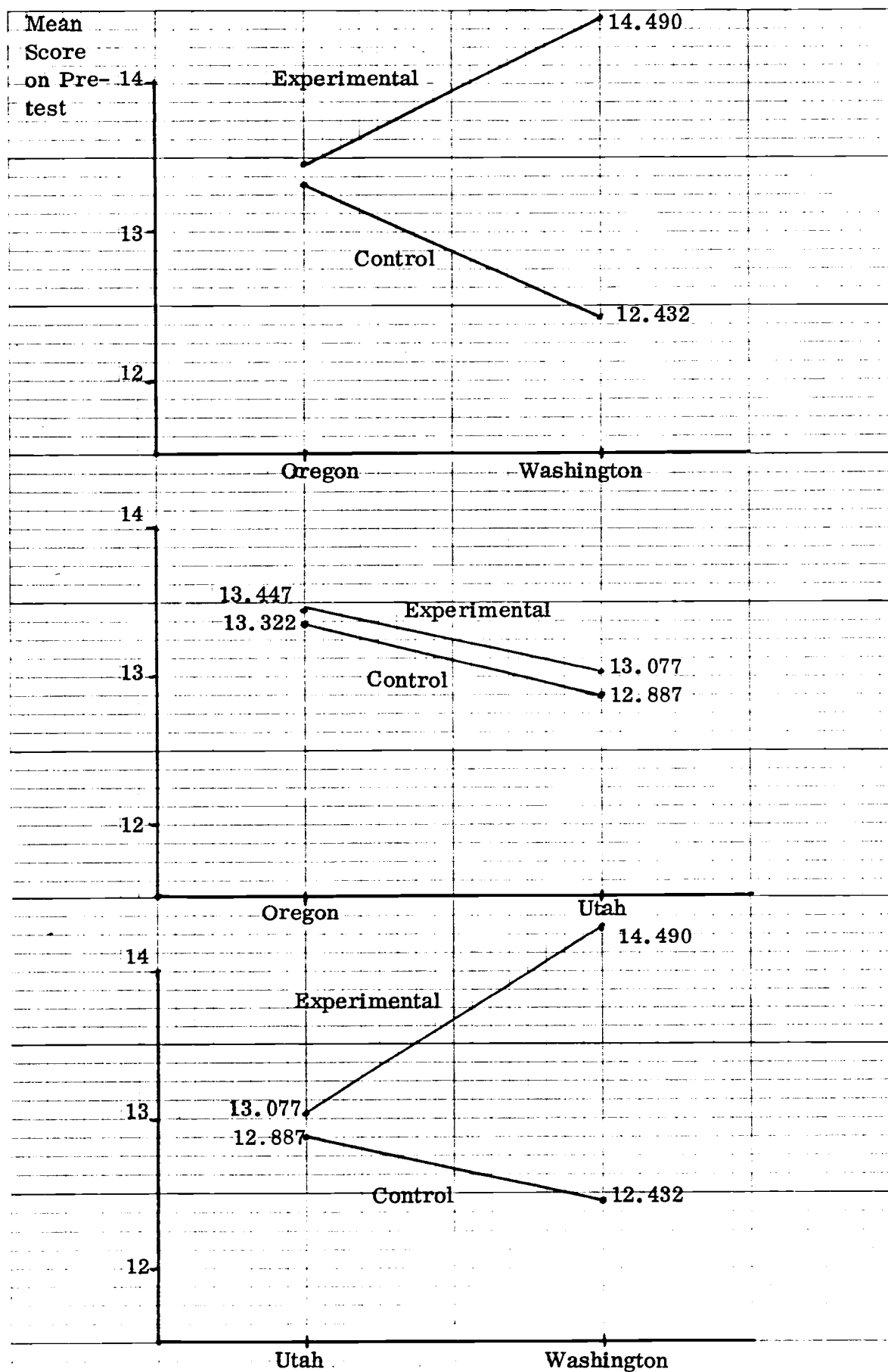


Figure 4. Interaction between the states and treatment on the pretest estimated mean scores of the general subtest.

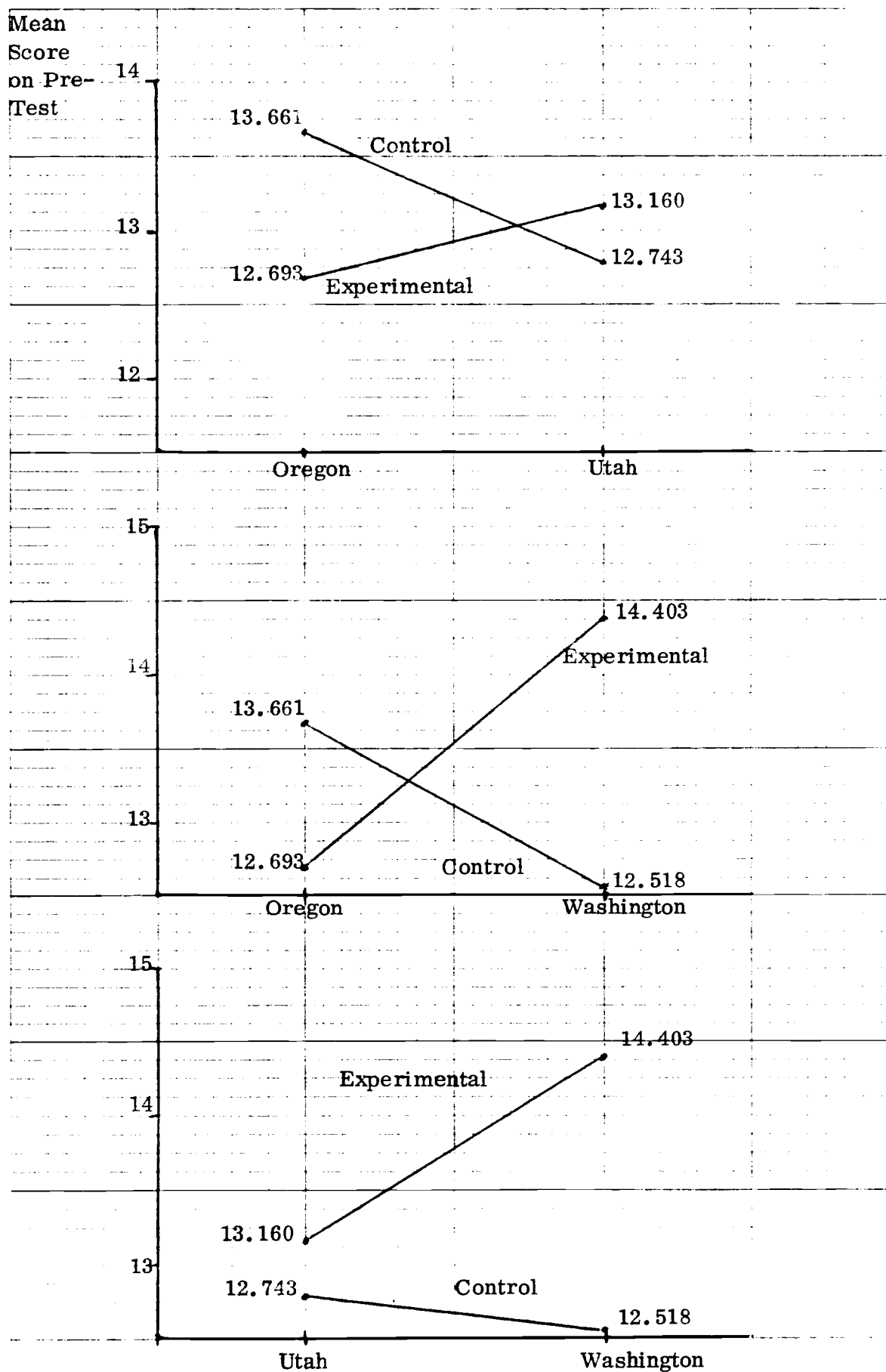
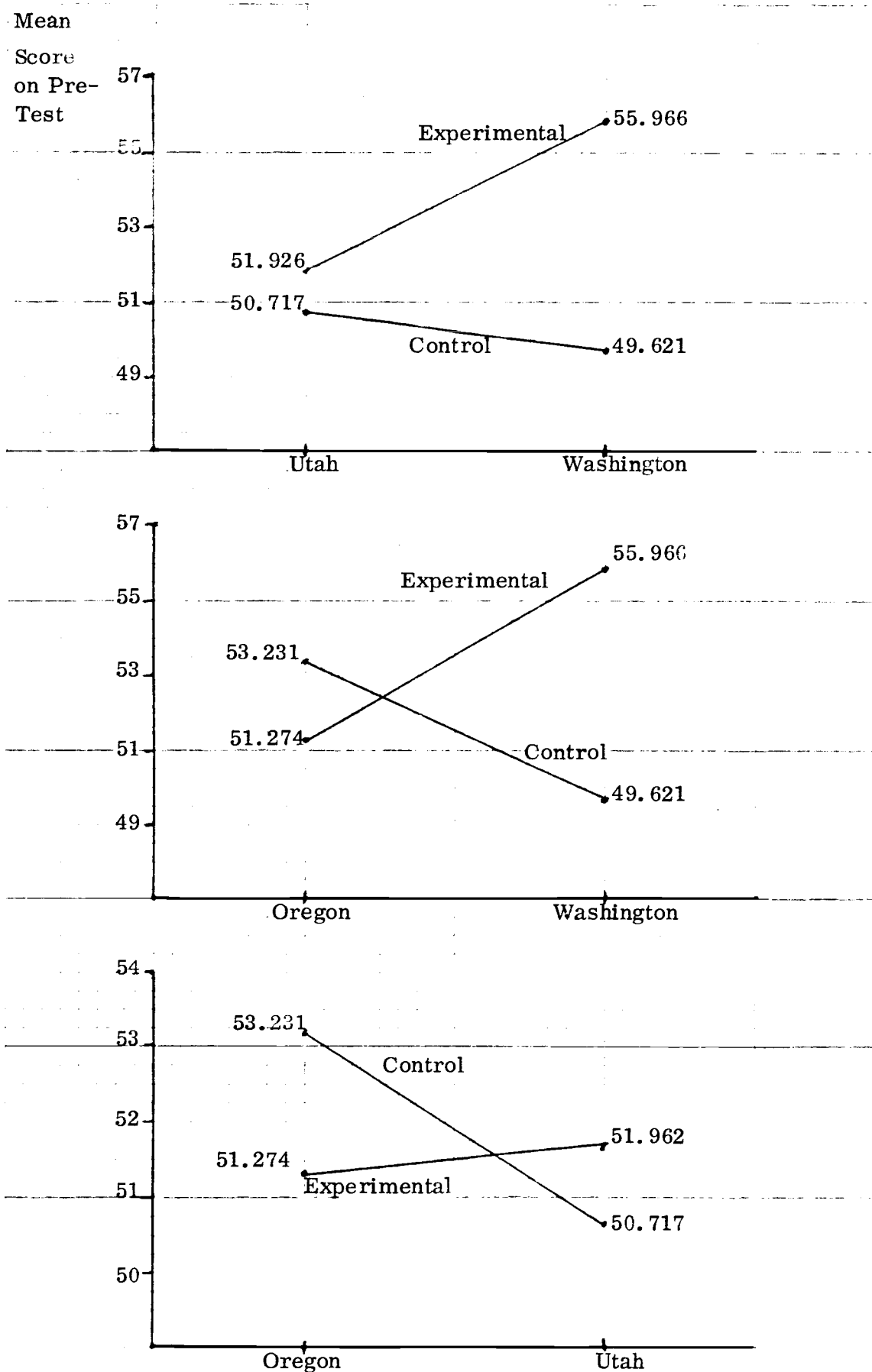


Figure 5. Interaction between the states and treatment on the pretest estimated mean scores of the total subtest.



APPENDIX IX

The following tables are presented to give information on the differences between states, and the state-treatment interactions. A complete discussion of each table is not warranted, as the information is only supplemental to the study.

Table XV exhibits the estimated mean score of each state and state-treatment interaction. Washington showed the greatest difference between the experimental and control group. Analysis of variance showed these differences to be statistically nonsignificant.

Table XVI shows a slight variance among the pretests for the states and state-treatment interactions. The F-values are not significant at the .05 level however. This says that the pretests do not vary significantly between the states and the state-treatment interactions. This finding also suggests that the subtests do not vary significantly and are evenly spread over the total self-concept score on the S. A. I.

Analysis of covariance procedures, using the pretest means as covariate, were utilized to adjust the mean score losses shown in Table XVII. There were no statistically significant mean score losses between the states, and the state-treatment interactions.

Table XVIII shows that the state X treatment interaction is not significant at the .05 level. The F-values for "Utah versus Oregon and Washington X Interaction" and "Oregon versus Washington X Interaction" were also non-significant at the .05 level. This says that the effect on self-concept for the time period is statistically the same across the groups and the states.

The multivariate analysis of variance compares the mean gain scores for the four subtests simultaneously to see if one subtest varies more than the others in mean gain score over the states and the states-treatment interactions. Table XIX shows that no one subtest was found to vary significantly more than any other subtest on mean gain score between the states and the states-treatment interactions. This finding suggests that self-concept is spread evenly over the subtests and gives support to the unidimensional construct of self-concept.

Table XX is a summary table depicting the findings that have been previously discussed in this Appendix.

TABLE XV. THE PRETEST ESTIMATED MEAN SCORES FOR EACH OF THE SELF-CONCEPT SUBTESTS FOR THE STATES, AND THE STATE-TREATMENT INTERACTIONS ON THE SELF APPRAISAL INVENTORY INTERMEDIATE LEVEL

Source	Level	N	Peer SEM*	Family SEM	Scholastic SEM	General SEM	Total SEM
State	Oregon	113	12.240	13.451	13.385	13.177	52.253
	Utah	158	11.306	14.100	12.982	12.952	51.340
	Washington	139	12.400	13.464	13.461	13.461	52.793
State X Treatment Interaction	Oregon						
	Exp.	60	12.017	13.118	13.447	12.693	51.274
	Control	53	12.464	13.784	13.322	13.661	53.231
	Utah						
	Exp.	79	11.374	14.350	13.077	13.160	51.962
	Control	79	11.237	13.850	12.887	12.743	50.717
	Washington						
	Exp.	66	12.970	14.088	14.490	14.403	55.966
	Control	73	11.830	12.840	12.432	12.518	49.621

*Subtest Estimated Means.

TABLE XVI. ANALYSIS OF VARIANCE ON THE PRETEST SUBTEST SCORES FOR STATE, TREATMENT, AND STATE-TREATMENT INTERACTION ON THE SELF APPRAISAL INVENTORY--INTERMEDIATE LEVEL

Dependent Variable	Source	Degrees of Freedom	Mean Squares	F-Value	P
Peer	State	2	60.718	1.861	N. S. *
	Treatment	1	19.034	0.583	N. S.
	State X Treatment	2	20.297	0.622	N. S.
Family	State	2	17.323	1.319	N. S.
	Treatment	1	21.004	1.599	N. S.
	State X Treatment	2	28.913	2.202	N. S.
Scholastic	State	2	14.671	0.290	N. S.
	Treatment	1	90.056	1.818	N. S.
	State X Treatment	2	44.368	0.895	N. S.
General	State	2	11.845	0.343	N. S.
	Treatment	1	35.742	1.354	N. S.
	State X Treatment	2	61.229	1.773	N. S.
Total	State	2	117.56	0.259	N. S.
	Treatment	1	598.60	1.310	N. S.
	State X Treatment	2	559.01	1.208	N. S.

*N. S. = Non-significant at the .05 level of significance.

TABLE XVII. THE POSTTEST ADJUSTED ESTIMATED MEAN SCORE LOSSES FOR THE STATES AND THE STATE-TREATMENT INTERACTIONS ON THE SELF APPRAISAL INVENTORY-- INTERMEDIATE LEVEL, USING THE PRETEST AS COVARIATE.

Source	Level	N	Peer	Family	Scholastic	General	Total
State	Oregon	113	-0.6742	-0.4836	-0.2645	-0.6756	-2.1329
	Utah	158	-0.8251	-0.2176	-0.3547	-0.4267	-1.7180
	Washington	139	-0.8198	-0.5873	-0.4542	-0.5974	-2.5215
State X Treatment Interaction	Oregon						
	Exp.	60	-0.8175	-0.1983	0.2102	-0.4039	-1.2261
	Control	53	-0.5309	-0.7688	-0.7392	-0.9472	-3.0398
	Utah						
	Exp.	79	-0.6459	-0.1725	-0.0507	-0.2731	-0.7058
	Control	79	-1.0043	-0.6076	-0.6587	-0.5803	-2.7303
	Washington						
	Exp.	66	-1.0192	-0.5934	-0.6787	-0.8300	-3.3371
	Control	73	-0.6205	-0.5811	-0.2297	-0.3648	-1.7058

TABLE XVIII. ANALYSIS OF VARIANCE ON THE POSTTEST SUBTEST SCORES FOR THE MEAN GAIN SCORES WITH THE PRE-TEST AS COVARIATE FOR THE STATE-TREATMENT INTER-ACTION ON THE SELF APPRAISAL INVENTORY--INTER-MEDIATE LEVEL

Dependent Variable	Source	Degrees of Freedom	Mean Squares	F-Values	Probability
Peer	State X Treatment Inter.	2	7.6986	0.4118	* N. S.
	Utah vs. Oreg. + Wash. X T	1	0.3982	0.0213	N. S.
	Oreg. vs. Wash. X T	1	14.782	0.7906	N. S.
Family	State X Treatment Inter.	2	7.0919	1.073	N. S.
	Utah vs. Oreg. + Wash. X T	1	8.7707	1.327	N. S.
	Oreg. vs. Wash. X T	1	8.7707	1.327	N. S.
Scholastic	State X Treatment Inter.	2	20.576	1.737	N. S.
	Utah vs. Oreg. + Wash. X T	1	2.6596	0.2238	N. S.
	Oreg. vs. Wash. X T	1	38.561	3.245	N. S.
General	State X Treatment Inter.	2	10.835	1.711	N. S.
	Utah vs. Oreg. + Wash. X T	1	1.7552	0.1901	N. S.
	Oreg. vs. Wash. X T	1	19.646	0.720	N. S.
Total	State X Treatment Inter.	2	173.94	1.367	N. S.
	Utah vs. Oreg. + Wash. X T	1	91.646	0.720	N. S.
	Oreg. vs. Wash. X T	1	256.22	2.013	N. S.

TABLE XIX. THE MULTIVARIATE ANALYSIS OF VARIANCE SCORES
FOR THE SUBSCORES (PEER, FAMILY, SCHOLASTIC,
GENERAL AND TOTAL) ON THE SELF APPRAISAL
INVENTORY--INTERMEDIATE LEVEL

Source	Degrees of Freedom	U-Statistic	Critical U at .05 level	P
State	2	0.4326467	0.152793	N. S. *
Utah vs Ore. & Wash.	1	0.97394	0.30261	N. S.
Ore. vs Wash.	1	0.97675	0.302608	N. S.
State X Treat- ment	2	0.301891	0.152793	N. S.
Utah vs Ore. & Wash X Trmt.	1	0.96919	0.302608	N. S.
Ore. vs. Wash. X Treat.	1	0.99191	0.302608	N. S.
Classes	12	0.85339	0.836500	N. S.

*N. S. = Non-significant at the .05 level of significance.

TABLE XX. SUMMARY TABLE CONCERNING MEAN GAIN SCORES ON THE SELF APPRAISAL INVENTORY, AS TESTED IN THIS STUDY

Hypotheses	F-Value	U-Value	Probability
1. No significant difference among states	0.2910		
2. No significant state-treatment interaction	1.367		N. S.
3. No significant difference between subscores of the self-appraisal inventory	0.259		N. S.
a. Among states		0.1527	N. S.
b. State X Treatment Interactions		0.1527	N. S.

*Non-significant at the .05 level of significance.