

AN ABSTRACT OF THE THESIS OF

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Abstract approved:

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The major purpose of this study was to determine if there were significant differences in the self-concepts of vocational education teacher-trainees, non-vocational education teacher trainees and non-education students at Montana State University.

Two hundred students were surveyed to determine if there were any differences in self-concepts based on either major field of study or program level. Fifty subjects, 25 freshmen and sophomores and 25 juniors and seniors, were randomly selected from each of the fields of vocational education, non-vocational elementary education, non-vocational secondary education and non-education to participate in the study.

The Counseling Form of the Tennessee Self Concept Scale (TSCS) was selected as the instrument for measuring self-concept and comparisons were made for 13 independent variables and for "Total P," the most important

score on this instrument. Analysis of variance procedures utilizing the F statistic were used during hypothesis testing. The .05 level of significance was used for all tests.

The findings of the study revealed that there were no significant differences in self-concept scores when comparisons were made by major field of study. However, when comparisons were made by program level, upper division students overall reported significantly higher "Total P" scores than did lower division students. Further testing revealed that only two of the groups, vocational education and non-vocational elementary education, had contributed to the significance for "Total P." Similar findings were true for these two groups in regard to the independent variables of "Self-Satisfaction" and "Personal Self." In addition, the non-vocational elementary education group reported significant differences for the "Moral-Ethical Self" and "Social Self" variables. In all instances where significance was observed, scores for upper division students were higher (more positive) than for lower division students.

Major conclusions reached through the study were:

1. Upper division students at Montana State University tend to have more positive self-concepts than do lower division students.
2. Education majors at Montana State University tend to have more positive self-concepts than non-education majors.

3. Contrary to the preponderance of contemporary thought and previous research findings, it is possible for individuals of adult age to develop more positive self-concepts.

Included among the recommendations is further study to identify the factors that contribute to positive self-concept development in teacher training. Also, the researcher recommends that the Tennessee Self Concept Scale (TSCS) be used in counseling students who intend to pursue a teaching career.

Self Concept:
A Comparison of Four Groups
of University Students

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SELF CONCEPT: A COMPARISON OF FOUR GROUPS OF UNIVERSITY STUDENTS

CHAPTER I

Introduction

Let people realize clearly that every time they threaten someone or humiliate or hurt unnecessarily or dominate or reject another human being, they become forces for the creation of psychopathology, even if these forces be small. Let them recognize that every man who is kind, helpful, decent, psychologically democratic, affectionate and warm, is a psychotherapeutic force even though a small one.

Abraham H. Maslow Motivation and Personality

Maslow indicates clearly the impact that one human being can have on the development of another. The critical relationship between student and teacher is subject to this impact and it is this relationship that provided the basic motivation for this study.

The theory of self-concept assumes an explicit relationship between our behavior and our beliefs. If this assumption is true, then it follows that what teachers believe about themselves and their students is critical in determining how effective they will be in the teaching/learning environment. Combs (1969) indicates that the attitudes teachers have about themselves and others are as important as all the methods, practices, techniques, and materials they might use in the classroom.

There seems to be general agreement that the teachers need to have positive attitudes about themselves and others

if they are to be positive forces in the development of their students. The work of (Luft, 1966; Jersild, 1965; and Combs, 1969) would indicate that when teachers have positive attitudes about themselves, they are in a much better position to build positive self-concepts in their students.

There appears to be little doubt that teachers want to be a significant force in the lives of their students. Moustakas (1966) indicates that every teacher wants to be a significant force and to meet the student on a critical level. He also indicates that every teacher wants to feel that what he or she does makes a difference. Purkey (1970) emphasizes the importance of "What the teacher does" by discussing two important aspects of the teacher's role: (1) the atmosphere the teacher develops and (2) the attitudes the teacher conveys. Both, he feels, would appear to be critical in influencing the development of the student.

While self-concept studies are certainly not new in education, including teacher preparation, there was a lack of published research that compares teacher-trainees by either their major field of preparation or their program level. Noticeably absent was research that dealt specifically with the self concepts of prospective vocational education teachers. Since vocational education teachers can expect to work with many students whose backgrounds and academic abilities lend to the development of low self-

esteem (Project Talent, 1967), it seemed important to the researcher that insight into the self-concept of all prospective teachers, especially those in vocational education, was needed.

If it can be assumed then that teachers make a significant impact on the development of students, and that teachers who have good self-concepts enhance the teaching/learning environment, then it follows that attention should be given to identifying those prospective teachers who have good self-concepts and thus can best affect students in their development.

Statement of the Problem

The major purpose of this study was to determine if there were significant differences in the self-concepts of vocational education teacher-trainees, non-vocational education teacher-trainees and non-education students at Montana State University in Bozeman, Montana.

Objectives of the Study

1. To measure self-concept of vocational education teacher-trainees, non-vocational education teacher trainees and non-education students at Montana State University.
2. To compare self-concept scores of vocational education teacher-trainees, non-vocational education teacher-trainees and non-education students at

Montana State University.

3. To compare self-concept scores of upper-division and lower-division vocational education teacher-trainees, non-vocational education teacher-trainees and non-education students at Montana State University.
4. To create an interest in and promote further research in the area of self-concept as it relates to the teaching profession.

General Questions That Were Answered

1. Are there significant differences in self-concept scores among the four groups sampled?
2. Is there a significant difference in self-concept scores between the upper and lower division of the groups studied?
3. Are there any differences in self-concept scores between education and non-education majors?

Assumptions

The following assumptions were made in regard to this particular study:

1. The beliefs people have are, to some degree, based on how they perceive themselves.
2. People will generally behave according to how they believe.

3. Self-reports of how people perceive themselves can generally be believed.
4. Self-concept, as a construct, can be measured through the self-report.
5. The Tennessee Self Concept Scale is a self-report instrument capable of measuring self-concept.
6. Since random sampling was used throughout this entire study, inferences can be made to the population as a whole from which the sample came.

Organization of the Study

This study was organized to facilitate presentation of information about self-concept and the relationship of self-concept first to the teaching profession in general and second to prospective teachers at Montana State University.

Chapter I of the study introduces the topic of self-concept, presents the problem investigated, identifies the specific objectives of the study, discusses general questions to be answered, lists the assumptions and defines terms important to the study. Chapter II presents a review of pertinent literature to give a theoretical framework for studying the problem. Chapter III presents the design of the study and the procedures used during the investigation. Chapter III includes the (1) research design, (2) instrument selection, (3) sampling procedures and (4) analysis of data. Chapter IV describes the findings of the study; and

Chapter V provides a summary, conclusions and recommendations. Also, Chapter V gives implications of the study and suggests additional research in the area of self concept.

Definition of Terms

1. Lower-Division Students are those students who have been identified as either freshman or sophomore. Identification is determined by the number of quarter credits earned (96 or less).
2. Non-Education Majors are those students majoring in non-teaching fields of agriculture, business, home economics and industrial arts.
3. Non-Vocational Elementary Education Majors are those students preparing to teach at the K-6 grade levels.
4. Non-Vocational Secondary Education Majors are those students preparing to teach in the areas of art, math, history, English, etc., at the 7-12 grade levels.
5. Self-Concept is a complex and dynamic system of beliefs which an individual holds true about himself, each belief with a corresponding value (Purkey, 1970).
6. Tennessee Self Concept Scale (TSCS) is a standardized instrument used to measure self-concept. The instrument was developed by Dr. William H. Fitts (1965). The instrument is available in two forms,

a clinical form and a counseling form. The counseling form was used in this study.

7. Tennessee Self Concept Scores are specific scores within the Tennessee Self Concept Scale that when added together give a composite picture of the subject. They include:

Self Criticism (SC) Score: This scale is composed of ten (10) items. These are mildly derogatory statements that most people admit as being true about them. Individuals who deny most of these statements most often are being defensive and making a deliberate effort to present a favorable picture of themselves. High scores generally indicate a normal, healthy openness and capacity for self-criticism. Low scores indicate defensiveness and suggest that the Positive Scores are probably artificially elevated by this defensiveness.

Total Positive (P) Score: This is the most important score on the Counseling Form. It reflects the overall level of self-esteem. Persons with high scores tend to like themselves, feel that they are persons of value and worth, have confidence in themselves, and act accordingly. People with low scores are doubtful of their own worth; see themselves as undesirable; often feel anxious, depressed and unhappy; and have little faith or confidence in themselves. If the SC Score is low, high P Scores become suspect and are probably the result of defensive distortion.

Row 1 P Score - Identity: These are the "What I am" items. Here the individual is describing his basic identity - what he is as he sees himself.

Row 2 "P" Score - Self Satisfaction: This score comes from those items where the individual describes how he feels about the self he perceives. In general this score reflects the level of self satisfaction or self acceptance. An individual may have very high scores on Row 1 and Row 3 yet still score low on Row 2 because of very high standards and expectations for himself. Or vice versa, he may have a low opinion of himself as indicated by Row 1 and Row 3 Scores yet still have a high Self Satisfaction Score on Row 2.

Row 3 "P" Score - Behavior: This score comes from those items that say "This is what I do", or "This is the way I act." Thus this score measures the individual's perception of his own behavior or the way he functions.

Column A - Physical Self: Here the individual is presenting his view of his body, his state of health, his physical appearance, skills and sexuality.

Column B - Moral Ethical Self: This score describes the self from a moral-ethical frame of references--moral worth, relationship to God, feelings of being a "good" or "bad" person, and satisfaction with one's religion or the lack of it.

Column C - Personal Self: This score reflects the individual's sense of personal worth, his feelings of adequacy, as a person and his evaluation of his personality apart from his body or his relationship to others.

Column D - Family Self: This score reflects one's feelings of adequacy, worth, and value as a family member. It refers to the individual's perception of self in reference to his closest and most immediate circle of associates.

Column D - Social Self: This is another "self as perceived in relation to others" category but pertains to "others" in a more general way. It reflects the person's sense of adequacy and worth in his social interaction with people in general.

Total Variability (V) Score: This score represents the total amount of variability for the entire record. High scores mean that the person's self-concept is so variable from one area to another as to reflect little unity or integration. High scoring persons tend to compartmentalize certain areas of self and view these areas quite apart from the remainder of self. Well integrated people generally score below the mean on these scores but above the first percentile.

Column Total V Score: This score measures and summarizes the variations within the columns.

Row Total V Score This score is the sum of the variation across the rows.

Total Distribution (D) Score: This score is a summary of the way one distributes his answers across the five available choices in responding to the items on the scale. It is also interpreted as a measure of still another aspect of self perception: certainty about the way one sees himself. High scores indicate that the subject is very definite and certain in what he says about himself while low scores mean just the opposite. Low scores are found also at times with people being defensive and guarded. They hedge and avoid really committing themselves by employing "3" responses on the answer sheet.

8. Upper-Division Students are those students who have been identified as either juniors or seniors. Identification is determined by the number of quarter credits earned (97 quarter credits or more).
9. Vocational Education Majors are those students preparing to teach agriculture, business, distributive, home economics, or industrial arts education at the 7-12 grade level.

Summary

There appears to be little doubt that the self-concept of the teacher has a direct bearing on the way the teacher behaves and that this behavior will have an effect on the development of the teacher's students. It was the researcher's desire to learn more about self-concept in the educational environment and this study was designed with this end in mind.

CHAPTER II

Review of Literature

Introduction

The major purpose of this chapter is to provide a theoretical framework for studying the problem. First, a historical perspective of the development of self-concept theory is presented. Second, a review of the literature dealing with the role of self-concept and academic achievement is examined. Next, a look at the impact of the teacher on self-concept is brought forth; and fourth, an examination of recent studies dealing with the self-concept profiles of college students, particularly teacher-trainees, is made. Finally, a brief look is taken into the problems of measuring self-concept.

Development of Self-Concept Theory

William W. Purkey (1970) gives a most complete overview of self-concept and synthesizes the history of self theory in his book, Self Concept and School Achievement. Purkey points out that in 1644 Rene' Descartes wrote about man's non-physical being in his Principles of Philosophy. Other philosophers of this period, such as Spinoza and Leibnitz, added ideas and terms such as the "soul," "mind," "psyche," and "self." These terms were used

interchangeably by most writers. However, very little scientific experimentation was conducted into the phenomenal self and little, if any, significant progress was made toward a better understanding over the next two hundred and fifty years.

In the period from 1900 to 1938 a new thrust was made toward an understanding of the self through the work of Sigmund Freud. Freud gave attention to the self under the concept of the ego and made it a central theme of this theory. This work was strengthened through the studies of his daughter, Anna Freud (1946) and it was given a respected place in therapy.

In spite of Freud's work and the work of his daughter and other psychologists such as William James (1890), who devoted a significant portion of his book, Principles of Psychology, to the "Consciousness of Self," it was the behavior oriented theories that continued to prevail and relatively little attention was given to self.

Whatever the causes for the decline of the emphasis on self during the first half of this century, the works of Mead (1934), Lewin (1935), Goldstein (1939), Maslow (1954) and others continued to make the concept of self a central theme in their theories.

Possibly the most significant work that brought self-concept interest back toward a position of centrality in psychology was that of Carl Rogers. Rogers (1951; 1969)

makes the self the central aspect of personality and his general approach to personality study became known as "self theory."

In recent years there has been an enthusiastic renewal of interest in the self and the role it plays in determining behavior. One example of this renewed interest was reported by Fitts (1973) who published a bibliography of research into self-concept using the Tennessee Self Concept Scale (TSCS). This publication lists over five hundred citations of studies using the Tennessee Self Concept Scale since it became available in 1965. This was somewhat astounding since the Tennessee Self Concept Scale was only one of many instruments that has been developed for use in this field.

The Tennessee Self Concept Scale (TSCS) is particularly applicable for use with college-age students. Fitts (1965) reported that college-age students were well represented when group norms were established for the instrument. Thus, student scores can more readily be compared to TSCS norms than an instrument normed on other groups. Hufaker (1974) concluded her study recommending that the TSCS be used in counseling prospective teachers. Additional information on the TSCS is presented in Chapter III.

Self-Concept and Academic Achievement

It has long been recognized that an individual's concept of himself is highly influential in much of his behavior and is directly related to his personality (Fitts,

1965). Combs and associates (1971) state that:

The single most important factor affecting behavior is self-concept. What people do at every moment of their lives is a product of how they see themselves and the situations they are in. While situations may change from place to place, the beliefs that people have about themselves are always present factors in determining behavior.

LaBenne and Green (1969) gave numerous examples of studies that clearly indicate an explicit relationship between manifest behavior, perceptions and academic performance.

If we can assume then that such a relationship exists, it follows that a student's performance in school is affected by the way he views himself.

Many studies have shown a significant relationship between self-concept and academic achievement. One study by Fink (1962) using ninth-grade students shows significant differences in self-concept between achievers and under-achievers. He also concluded that the relationship between achievement and self-concept was much stronger for boys than for girls. This position is also supported by the research of Bledsoe (1967) and Campbell (1965), which would indicate that sex differences do appear to influence the relationship of self and achievement.

Bledsoe (1967) also examined the relationship of the self-concepts of fourth- and sixth-grade students to their intelligence, achievement, interests and anxiety. Using the Bledsoe Self Concept Scale he found significant positive

correlations between self-concept and achievement for boys but insignificant correlations for girls.

The picture of the relationship between self-concept and achievement appears to remain the same even when isolated on specific groups of students. Caplin (1966), studying Negro students, found that those who professed positive self-concepts tended to perform better academically than those who had low, or negative, self-concepts. A more severe problem appears to exist with the Negro student, however, in that very few Negro students seem to have positive self-concepts. The plight of the Negro student is presented in the book, Negro Self-Concept, through the writing of Kvaraceus; Gibson; Patterson; Seasholes and Grambs (1965). The preponderance of evidence indicates that the school has been, and continues to be, a major constraint in the development of the Negro student. Even for those who have "made it," the weight of the past still haunts. James Baldwin (1963), a Negro writer, exemplifies the feeling of hopelessness as he comments on his early childhood:

In order for me to live, I decided very early that some mistake had been made somewhere. I was not a "nigger" even though you (whites) called me one.... I had to realize when I was very young that I was none of these things I was told I was. I was not, for example, happy. I never touched watermelon for all kinds of reasons. I had been invented by white people, and I knew enough about life by this time to understand that whatever you invent, whatever you project, that is you. So where we are now is that a whole country of people believe I'm a "nigger" and I don't.

One final dimension on the relationship between self-concept and achievement is the effect of high or low achievement on self-concept.

Gibby and Gibby (1967) explored the stress of academic failure on seventh-grade students. Sixty students from two classes for academically superior whites were selected and experimental and control groups were formed. Students in both groups had never failed nor did they know of their advanced placement in school. Each group was given three tests; an English grammar test, a word fluency test and the Gibby Intelligence Rating Schedule. Three days later both groups were given the word fluency test again and just before starting members of the experimental group were given notes informing them that they had failed the first test. Comparing the scores of the second test indicated that, under stress of failure, the experimental group regarded themselves less highly and felt they were not regarded as highly by others.

Similar findings were reported by Centi (1965) in regard to a decline in self-report feelings of college freshmen who received poor grades their first semester in college. They also tended to rate teachers, courses, etc. lower after this failing experience.

In the same way that poor performance tends to lower self-regard, findings of Diller (1964) and Carleton and Moore (1966, 1968) indicate that successful performance

tends to raise self-regard of students.

In summary, it appears that a significant relationship does exist between the self-concept and academic achievement. In the same way that a low self-concept tends to hurt performance, a good self-concept tends to increase performance. Also, there appears to be evidence to support the hypothesis that good performance tends to have a positive effect on self-concept and poor performance tends to cause a decline in self-regard. The final point to make is that the self-concept and achievement relationship is evidently stronger in males than in females.

It would seem that it is imperative for the school to provide the student with the kind of experiences that allow success in performance thus allowing full development of the self.

The Impact of the Teacher on Students Self Concept

No printed word nor spoken plea
 Can teach young minds what men should be,
 Not all the books on all the shelves
 But what the teachers are themselves
 Anonymous

There appears to be little doubt that teachers play a crucial role in the self-concept development of their students. What the teacher believes, says and does becomes an impacting force in the development of the student, either positive or negative. Carl Rogers (1967) comments on the importance of the teacher. Whether or not we fully accept his premise, there is little doubt that the person

of the teacher is important and dynamic in the student/teacher relationship and in the self-concept of every student he or she comes in contact with.

We know and I will briefly describe some of the evidence--that the initiation of such learning rests not on the teaching skills of the leader, not upon his scholarly knowledge of the field, not upon the programmed learning he utilizes, not upon his lectures and presentations, not upon his abundance of books, though each of these might at one time or another be utilized as an important resource. No, the facilitation of significant learning rests upon certain attitudinal qualities which exist in the personal relationship between the facilitator and the learner.

Rogers (1967)

A considerable amount of empirical study has added to our knowledge about the teacher's impact on student's self-concept. Combs and associates (1969) in their study of the "helping professions" found that effective teachers, priests and counselors could be distinguished from ineffective helpers on the basis of attitudes about themselves and others. Rosenthal and Jacobson (1968) dealt with teacher expectation and intellectual development using randomly selected elementary students but telling their teachers they were high-potential students. These students tended to score significantly higher than non-selected students and were described in positive terms by their teachers. Rosenthal and Jacobson concluded that the teacher, through facial expressions, manner of speaking, touching, etc., subtly helped the child to learn, even though some of the students had not been identified as high-potential students

before the study. Further, they stated that "Children who are expected to gain intellectually in fact do show greater intelligence gains after one year than do children of whom such gains are not expected."

In regard to building self-concept, Spaulding (1964) found significant correlations between the height of self-concept and the degree to which the teachers conveyed warmth, were supportive, accepting and facilitative. In the opposite direction, he found significant negative correlations when the teachers were dominating, threatening, and sarcastic.

Possibly the most important impact that teachers can have on students is to provide an atmosphere for success. The research of Page (1958) shows that students' performance improved significantly when teachers wrote encouraging comments on students' written work. It would appear that much is to be gained by focusing on the accomplishments of students rather than on the mistakes. The seemingly small act of marking a 10-point essay question with a "+8" rather than a "-2" places the emphasis on the positive rather than the negative and tells the student that, too.

Webster and Sobieszek (1974) provide a fitting summary for this topic. They concluded from the research on self-evaluation that:

All studies show evidence that can be interpreted as indicating the critical importance of the opinion of others on the individuals self-evaluation.

The Self Concept of Teacher-Trainees

Those in positions of teacher training have long shown an interest in the self-concept of teachers and seldom, if ever, will one find a teacher rating sheet that does not include many of the dimensions of a positive self-concept. Personality, ability to get along with students, teachers and administration, dependable, and on and on. However, there has not been a great deal of empirical research that sheds much light on the identification of self-concept of teacher-trainees in general and vocational teacher-trainees in specific.

In one study of 394 seniors in education at East Texas State University, Parks (1974), using the Tennessee Self Concept Scale found the following:

1. Men who aspired to be teachers generally had low self-concepts.
2. Women elementary trainees had higher self-concept scores than women secondary trainees.
3. Women scored higher than did men in the areas of Identity and Moral-Ethical Self.

Nystul (1974) reported similar results when he compared female and male students at Oregon State University. Female students in Nystul's study had significantly higher Total "P" scores than males.

One concern in regard to the usefulness of information about the self-concept of college students stems from the

review of the literature by Fitts and associates (1971). They conclude that "It is quite clear, however, that by the earliest age in which the TSCS is applicable (11-12 years) the self-concept is already a relatively stable entity." In fact, many studies that used experimental designs aimed at improving the self-concept of college students, (Boyle, 1967; Hamner, 1968; and Davis, 1969) have demonstrated that self-concept is not readily changeable.

However, two recent studies added new light on the subject. Ely and Minars (1973) used the Tennessee Self Concept Scale to compare two groups of college freshmen at Oklahoma State University. One group was placed in a Mastry learning environment and the other group in a Conventional learning environment. They concluded that students in the Mastry environment reported higher self-concepts than did those in the Conventional environment.

Washington (1974) working with inner-city teachers used "Success Analysis," a sensitivity training approach, to help teachers better understand the affective domain of the inner-city children they worked with. Self reports of the teachers reflected a new awareness of the children's affective needs and a more positive concept of themselves. While this study lacks the statistical sophistication desired, the findings do offer evidence of the need for additional research into the possibility of being able to change the self-concept of college age and other older

persons.

While the Tennessee Self Concept Scale has been used in a number of education studies, there has been little evidence of research into differences in self concept in segmented fields of education. Most of the research has been in such broad general areas as Social Science (Nystul, 1974). Fleshler and Kwal (1973) did report using the Tennessee Self Concept Scale to test the relationship between self-concept and leadership with speech students. After administering the test to five hundred students, the twenty with the highest scores and the twenty with the lowest scores were placed in separate groups. Significant differences were found in the behavior patterns of the two groups. The top group reported a more relaxed environment, more individual freedom and generally more group progress. These results would appear to have implications for teachers in designing group learning activities.

Is there then reason to further develop our knowledge in the area of self-concept and how it relates to the teacher? Adams and LaVoie (1974) make a good case in their findings on teacher expectance. They found that teacher expectations of students were biased by their perceptions of students' sex and conduct record. Fifth grade boys were consistently rated lower than girls and past conduct, as indicated by a cumulative file, did affect the teachers' expectancy of future behavior of the students. Lebenne and

Greene (1969) provide a succinct statement on the importance of studying self-concept and its importance to the teacher.

They state that:

The manner of the teacher in presenting the subject matter is of critical importance, because teaching activities have specific reference and meaning for the development of the student's self-concept.

It would seem to be evident that a good self-concept is of major importance to the prospective teacher and that teacher education programs need to consider this important dimension when counseling with students who are planning on entering the teaching profession.

Harry K. Wong, a science teacher from Redwood, California, summarized it when speaking at the 1975 annual convention of the American Vocational Association. He said, "Your best instructional material is a good self-image."

Problems of Measuring Self-Concept

There continues to be much controversy over the ability of researchers to measure self-concept. While there are a number of different techniques for measurement, the most popular way is through the use of self-report instruments. It is this technique that is at the base of much of the controversy and with the new thrust into this area a number of instruments have been developed over the last few years.

Wylie (1974) presents perhaps the most comprehensive and critical review in her book, The Self-Concept. She first gives a description of the many instruments used and presents a critique of each. Wylie's main concern seems to lie in the area of the lack of validity. She concludes that the use of a number of the instruments should be abandoned because there is inadequate evidence to support their continued use. While she did not single out the Tennessee Self Concept Scale in her list for abandonment, she was not very optimistic over its value. On the other hand, Rogers (51) takes the strong position that self-reports are valuable and Allport (1966) feels that the individual has every right to be believed when he reports feelings about himself.

There is little doubt that self-reports contain a great number of contaminating variables and that some distortion is to be expected. However, there is significant evidence to indicate that the self-report does reveal information that is valuable to the user. Coopersmith (1967) concludes that while self-esteem may vary from one area of self-perception to another, when added together do give a composite profile of self. Purkey (1970) provides a good reminder to the user of self-concept information. He insists that when interpreting data the user must recognize his own limitations in dealing with this complex construct and also be keenly aware of the many biases one might have.

He concludes with this statement:

Your task is to gain a clearer understanding of the student's self, not to try and give him yours. To put it another way, you should have a fair understanding of yourself before you attempt to evaluate the self of others.

While it is apparent that there are problems associated with self-concept research, it is also apparent that many dedicated and concerned researchers are willing to continue their search for knowledge that will provide yet a clearer insight into the phenomenal self.

Summary

The preceding materials provided a background of information for developing a theoretical framework for the study of self-concept. The hypothetical construct of self-concept proved to be a most interesting and rewarding study for the researcher.

CHAPTER III

Research Design

This chapter relates the procedures that were used in researching the problem. First, a look is taken at the dependent variable, self-concept, as it was used in this study. Next, the research instrument, the Tennessee Self Concept Scale (TSCS), is presented showing its uses, reliability, and validity in empirical self-report research. After this, the sample used in this study is identified and the sampling method that was used to secure the responses is outlined. Finally, the analysis procedures used in interpreting the gathered data is presented.

The Dependent Variable

Self-concept, as measured by the Tennessee Self Concept Scale, was the dependent variable in this study. The self-concept was determined by the subjects' responses to a series of questions dealing with perceptions held about themselves in nine (9) different areas (Fitts, 1965). These were: (1) Self-Criticism, (2) Identity, (3) Self-Satisfaction, (4) Behavior, (5) Physical Self, (6) Moral-Ethical Self, (7) Personal Self, (8) Family Self, and (9) Social Self. When applied together, the scores give a composite view, "Total P," of overall self-esteem.

As was previously discussed in Chapter II, the assumptions were made that both (1) self-concept could be measured and (2) that the Tennessee Self Concept Scale was capable of measuring this variable.

Research Instrument

The Tennessee Self Concept Scale (TSCS), (Fitts, 1965), a standardized instrument, was used to measure self-concept. The instrument is available in both the Clinical and Research Form and the Counseling Form. Since the Clinical and Research Form is used mainly in therapy, the Counseling Form (Appendix A), which has a variety of uses, was selected for this study. Following is a brief description of the scales included in the Counseling Form.

- a. The Self-Criticism Scale (SC): This scale is composed of ten (10) items. These are all mildly derogatory statements that most people admit as being true for them.
- b. Total Positive Score (P): This is the most important score on the Counseling Form. It reflects an overall level of self-esteem.
- c. Identity: These are the items that an individual uses to describe "what I am."
- d. Self-Satisfaction: In general, this score reflects the level of self satisfaction or self acceptance.
- e. Behavior: This score reflects the individual's

perception of his own behavior.

- f. Physical Self: This score reflects the way the individual views his body, health, physical appearance, skills and sexuality.
- g. Moral-Ethical Self: This score describes the self from a moral-ethical frame of reference--moral worth, feelings of being a "good" or "bad" person, and satisfaction with one's religion or the lack of it.
- h. Personal Self: This score reflects the individual's sense of personal worth, his feeling of adequacy as a person and his evaluation of his personality.
- i. Family Self: This score reflects one's feelings of adequacy, worth, and value as a family member.
- j. Social Self: This score reflects the person's adequacy and worth in his social interaction with other people.
- k. Total Variability Score (V): This score represents the total amount of variability for the entire record. High scores reflect little unity or integration.
- l. Column Total V Score: This score summarizes and measures the variations within the columns.
- m. Row Total V Score: This score is the sum of the variation across the rows.

- n. Total Distribution Score (D): The score is a summary of the way one distributes his scores across the five available choices. High scores indicate that the subject is definite and certain, and low scores just the opposite.

The instrument is available in both a hand-scored version and a computer-scored version, of which the latter was used in this study. The computer-scored version requires the subject to provide his/her name, sex and social security number, and react to one hundred (100) descriptive statements which portray how the subject views himself or herself in a number of different roles. The instrument is self administering and has a mean completion time of about thirteen minutes. (Fitts, 1965).

When the counseling form is scored, a profile (Appendix B) for each subject or group of subjects is developed, allowing for a comparison with norm scores for the instrument.

Instrument Validity:

- (a) Content Validity: Ten (10) of the 100 items used in the TSCS, the Self-Criticism Score, are taken from the Minnesota Multiphasic Personality Inventory (MMPI) Lie scale. The remaining ninety (90) items were those in which there was perfect agreement by a panel of judges, seven (7) clinical psychologists.

- (b) Correlations with Other Measures: Peter M. Bentler (1972) reviewing the instrument for Buros in the Seventh Mental Measurements Yearbook noted a high negative correlation of $-.70$ with the Taylor Anxiety Scale. Since the TSCS measure of Total Positive reflects a positive self-concept and the Taylor Scale a high level of anxiety, this negative correlation would indicate a high degree of validity. Bentler also reported positive correlations ranging from $.50$ to $.70$ with the Cornell Medical Index and correlations from the $.60$'s to $.90$'s with various Minnesota Multiphasic Personality Inventory (MMPI) Scales.

In her study of "Attitudes Toward Teaching" and Attitudes toward Self, Quinn, (1957) found a negative correlation of $-.554$ between Total Positive on the TSCS and the Minnesota Teacher Attitude Inventory. High Scores on the MTAI reflect unhealthy attitudes while the TSCS Total Positive score reflects positive attitudes.

- (c) Other Validation Measures: In his manual, Fitts (1965) reports a number of other tests of validations in regard to group

discrimination, correlation with other measures and personality changes under particular conditions.

Instrument Reliability:

Test-retest reliability coefficients of all major scores on the TSCS are reported by Fitts (1965) and range from .60 to .92. Bentler (1972) reported scores in the high .80's concluding that:

Thus many psychometric qualities of the scale meet the usual test construction standards that should exist in an instrument that hopes to receive wide usage.

Other users of the TSCS report similar results with consistent high correlations found for Total Positive. This was critical since Total Positive is considered the single most significant score on the counseling form; the form selected by the researcher for this study.

Summary

Suinn (1972) in his review for Buros states that:

In summary, the TSCS ranks among the better measures combining group discrimination with self concept information. The Empirical scales are useful as a means of screening clients for pathology, while some of the other scales seem to add some intuitive data about self perception.

Sampling Procedures

I. The Sample:

The sample in this study consisted of two hundred

(200) undergraduate college students--fifty (50) each in (1) non-vocational elementary education, (2) non-vocational secondary education, (3) vocational secondary education and (4) non-education majors from the fields of agriculture, business, home economics and industrial arts. The non-education majors were limited to the above groups so that a comparison could be made between the vocational education majors and non-education majors in these fields. The groups were further broken down into upper-division (junior and senior) and lower-division (freshmen and sophomore) which gave the following eight (8) groups of twenty-five each.

Vocational Ed. Upper Div.	Elementary Ed. Upper Div.	Non-Vocational Sec. Ed. Upper Div.	Non-Education Voc. Dept. Upper Div.
Vocational Ed. Lower Div.	Elementary Ed. Lower Div.	Non-Vocational Sec. Ed. Lower Div.	Non-Education Voc. Dept. Lower Div.

Sample Identification

The first step in identifying the subjects for the study was to determine population parameters for each group. This was accomplished during the first four weeks of fall term, 1975, by contacting each department on the

MSU campus that had students who were a part of the study population. A list of departmental majors was secured and these majors were classified as either upper- or lower-division, depending on the number of quarter credits completed at the time of the study. For this study, all post-baccalaureate students were excluded from the population. Also, due to their inaccessibility, all off-campus students were excluded from the population. Those off-campus students excluded were student teachers from the three education areas represented in the study. Thus, their exclusion should not have had a significant impact on the randomness of the sample or on the findings. Once all departmental lists were collected, they were verified against the fifth week final enrollment printout supplied by the MSU Registrar's Office. This printout identifies each student by name, address, phone number, year in school and declared major. This resulted in the deletion of a few students who had either dropped out of school or changed majors during the first week of school.

The next step was to assign a number to each student and, through use of a table of random numbers, identify the twenty-five (25) in each group that were included in the sample.

Once the subjects were identified, a letter (Appendix C) was sent explaining the project and inviting each person to come to a testing room to complete the instrument. At

this time, November 20, 1975, data collection began.

Instrument Administration and Control

The School of Business at Montana State University provided a testing room for administering the instrument which allowed each subject to experience the same physical environment during completion of the instrument. This was done to provide control over such contaminating variables as noise, interruptions, decor and heating.

When each subject responded to the invitation to participate, a thorough explanation of the project was given and subjects' questions were answered. Also, students were asked to sign a subject consent form (Appendix D) indicating that they had voluntarily consented to cooperate in this project. All those who responded to the letter agreed to cooperate with the study. When a subject completed the instrument it was immediately collected, checked for completeness and filed. The subject was assured of anonymity and informed that an opportunity would be provided for feedback as to his or her individual profile at the conclusion of the data gathering stage.

By the end of fall term, eighty (80) students had completed the instrument and data collection was terminated until the beginning of winter term, January, 1976. At this time, a telephone follow-up was conducted and over the next five (5) weeks an additional seventy (70) students completed

the instrument, bringing the total to one hundred fifty (150). At this point it was determined that the remaining fifty (50) of the original sample would not or could not respond. These students indicated that they were busy, weren't interested, or didn't wish to reveal the desired information.

At this point, the researcher determined the number needed in each of the eight (8) groups to complete that group. Using the original table of random numbers additional subjects were selected and contacted (Appendix E) for participation. This resulted in an additional forty (40) subjects completing the instrument over the next one and a half weeks. A concentrated follow-up campaign was conducted by phone during the week of March 1 through 5 and subject number two hundred (200) completed the final instrument at 9:45 a.m. on Friday, March 5, 1976.

Upon completion of the data collection from the selected sample, all instruments were again checked for completeness, alphabetized by group and sent to Counselor Recordings and Tests in Nashville, Tennessee, for processing.

In summary, population identification and sample selection proved to be a most demanding phase of the study. Much time and care was given to compiling accurate lists of each population and random sampling procedures were used for identifying each of the subjects. While it became necessary

to select additional subjects to complete the sample, randomness was maintained through the selection procedures.

A high degree of control was maintained throughout the study through the use of a common testing room and through instrument administration.

Analysis Procedures

The analysis procedures used in this study included analysis of individual scores, analysis of group scores both by major field and program level and an analysis of the interaction effect between the major field and program level scores.

Analysis of Individual Scores

One of the provisions that was established during the data collection stage was that of providing feedback to subjects who participated in the study. This was accomplished through the use of a computer-scored answer sheet that, when processed, provided an individual self-concept profile for each of the two hundred (200) subjects. This computing service is made available through the office of Counselor Recordings and Tests in Nashville, Tennessee, the publisher of the TSCS.

When all the subjects had completed the instrument, the instruments were organized into the eight (8) groups in the study and mailed for processing. The results were

returned to the researcher on March 26, 1976. The results included individual profiles for each subject, group mean scores and standard deviations and punched data cards for further processing. Upon receipt of this information each subject was again contacted and given the opportunity to receive a copy and an interpretation of his or her profile. (See Appendix F for a sample profile.)

Analysis of Group Scores

Statistical Design:

1. The statistical design on the following page was used in investigating the problem (Exhibit 1).

Null Hypotheses

2. The following null hypotheses were tested. The .05 level of significance was used for all tests.
 H_1 There is no significant difference in mean scores of the four major groups.
 H_2 There is no significant difference in mean scores of upper division and lower division students.
 H_3 There is no significant interaction effect between the mean scores of major field and program level.

EXHIBIT 1.

2-Way Fixed Arrangement ANOVA Design

MAJOR FIELD¹

		Vocational Education Majors	Non-Vocational Elementary Educ. Majors	Non-Vocational Secondary Educ. Majors (7-12)	Non-Education Majors from Vocational Dept.
PROGRAM LEVEL	Upper Div. Undergrad.	n=25	n=25	n=25	n=25
	Lower Div. Undergrad.	n=25	n=25	n=25	n=25

-
1. Vocational majors are students majoring in agriculture, business, distributive, home economics and industrial education. Non-Vocational elementary and secondary majors are students preparing to teach in non-vocational fields. Non-Education majors are students in non-teaching fields of agriculture, business, home economics and industrial arts.

Use of the F Statistic

3. The F statistic was used in analyzing the data. The layout for a 2 X 4 Fixed Design follows:

Source of Variation	df	SS	MS	F
Major Field	3	A	A/3	MS Major/MS Error
Program Level	1	B	B/1	MS Program/MS Error
Interaction	3	C	C/3	MS Interaction/MS Error
Error	192	D	D/192	
Total	199	E		

One-Way Analysis of Variance

When null hypothesis number two was rejected, a one-way analysis of variance (Glass and Stanley, 1970) was used to determine which mean scores were contributing to the significance. The .05 level of significance was used for all tests.

Computer Analysis

The Sigma 7 computer, located on the Montana State University campus, was used for processing all data. Also, the Statistical Package for the Biomedical Sciences (BMD) was used in the computer analysis of the data.

Summary

Specific attention was given to identifying the population from which the sample was taken and in using

random selection procedures in sample selection. Also, a high degree of data collection control was maintained through the use of a common testing room and in limiting the instrument administration to two individuals. Established statistical tools and computer technology were utilized in processing the data.

CHAPTER IV

Research Findings

Introduction

This chapter is designed to illustrate the specific findings that resulted from this study into the self concepts of selected groups of students at Montana State University.

In the presentation of this chapter the three null hypotheses are given first as a reminder as to what specifically was tested through the research. Next, the overall findings for "Total P," the single most important score in this research, are examined. Findings for "Total P" are followed by a presentation of the six (6) independent variables that revealed significant differences in the self-concept scores. Chapter IV concludes with a summary of "Total P" findings for each of the four (4) groups represented in the study.

Null Hypotheses

The following three (3) null hypotheses were tested for "Total P" and also for each independent variable.

H_1 There is no significant difference in mean scores of the four groups.

This null hypothesis was retained for "Total

P" and for each of the independent variables leading to the conclusion that there was no significant difference in self-concept scores of students at Montana State University when compared by their major field of study.

H₂ There is no significant difference in mean scores of upper division and lower division students.

This null hypothesis was rejected for "Total P" and for six (6) of the independent variables. The researcher thus concluded that there is a significant difference in the self-concepts of upper division and lower division students at Montana State University. Further, it was concluded that upper division students have more positive self-concepts than do lower division students.

H₃ There is no significant interaction effect between the mean scores of major field and program level.

This null hypothesis was retained leading to the conclusion that the findings were not affected by an interaction of the major field and program level scores.

Findings

For each variable that produced a significant finding three tables are presented showing pertinent data analysis. The first table presents mean scores for each of the eight

(8) groups in the study. Table two (2) presents the "F" analysis overall between upper division and lower division and table three (3) presents the "F" analysis by group between upper division and lower division.

Following the presentation of the three tables for each variable, concluding remarks relevant to the findings are made.

VARIABLE: TOTAL "P"

Table I

Mean Scores

Vocational Education Upper Division	363.52
Vocational Education Lower Division	341.64
Non-Vocational Elementary Education Upper Division	366.00
Non-Vocational Elementary Education Lower Division	346.24
Non-Vocational Secondary Education Upper Division	358.60
Non-Vocational Secondary Education Lower Division	354.68
Non-Education Vocational Department Upper Division	349.40
Non-Education Vocational Department Lower Division	348.56

Table II

"F" Analysis Overall

Effect	Critical F $\alpha = .05$ df = 1	Calculated F
Program Level	3.89	6.49

Table III

"F" Analysis by Group

Group	Critical F $\alpha = .05$ df = 1	Calculated F
Vocational Education	4.04	<u>5.92</u>
Non-Vocational Elementary Education	4.04	<u>5.23</u>
Non-Vocational Secondary Education	4.04	0.14
Non-Education Vocational Department	4.04	0.10

An analysis of Table I shows the mean scores of each of the eight (8) groups. When the means were submitted to the "F" test, the results indicated that there was a significant difference between upper division and lower division students overall (Table II). Further testing, however, (Table III) revealed that only two of the groups, vocational education and non-vocational elementary education, had significantly different mean scores. Thus, the researcher concluded that while there was an overall difference in self-concept scores, as revealed by the "Total P" scores, a significant difference existed in only the two groups previously mentioned. Also, the researcher concluded that upper division students had more positive self-concepts than did lower division students.

When compared to the norm score of 345.57 (Fitts, 1965), the researcher concluded that Montana State University students overall had positive self-concepts as measured

by the Tennessee Self Concept Scale. Implications of these findings are discussed in Chapter V.

The following data represent the findings that were significant on each of the independent variables.

VARIABLE: SELF-SATISFACTION

Table IV

Mean Scores

Vocational Education Upper Division	114.36
Vocational Education Lower Division	104.40
Non-Vocational Elementary Education Upper Division	113.96
Non-Vocational Elementary Education Lower Division	105.64
Non-Vocational Secondary Education Upper Division	113.16
Non-Vocational Secondary Education Lower Division	108.12
Non-Education Vocational Department Upper Division	106.24
Non-Education Vocational Department Lower Division	106.64

Table V

"F" Analysis Overall

Effect	Critical F $\alpha = .05$ df = 1	Calculated F
Program Level	3.89	<u>7.55</u>

Table VI

"F" Analysis by Group

Group	Critical F $\alpha = .05$ df = 1	Calculated F
Vocational Education	4.04	<u>6.18</u>
Non-Vocational Elementary Education	4.04	<u>4.55</u>

Table VI continued

Group	Critical F $\alpha = .05$ df = 1	Calculated F
Non-Vocational Secondary Education	4.04	1.25
Non-Education Vocational Department	4.04	1.25

Table VI illustrates the mean scores for each group and Table V presents the overall analysis using the "F" test. As was indicated in Table V, a significant difference did exist between upper division and lower division students. Table VI presents the analysis by group and again shows that only vocational education and non-vocational elementary education contributed to the significance. In fact, lower division students in the non-education group scored a bit higher than did their upper division counterparts.

The researcher determined that, overall, upper division students reached a higher level of self satisfaction as they progressed through their university experience.

When compared to the norm of 103.67 (Fitts, 1965), the researcher observed that all Montana State University groups had higher self-satisfaction scores than the norm group.

VARIABLE: BEHAVIOR

Table VII

Mean Scores

Vocational Education Upper Division	116.18
Vocational Education Lower Division	110.20

Table VII continued

Mean Scores	
Non-Vocational Elementary Education Upper Division	118.72
Non-Vocational Elementary Education Lower Division	111.52
Non-Vocational Secondary Education Upper Division	116.44
Non-Vocational Secondary Education Lower Division	117.04
Non-Education Vocational Department Upper Division	114.64
Non-Education Vocational Department Lower Division	112.12

Table VIII

"F" Analysis Overall

Effect	Critical F $\alpha = .05$ df = 1	Calculated F
Program Level	3.89	5.21

Table IX

"F" Analysis by Group

Group	Critical F $\alpha = .05$ df = 1	Calculated F
Vocational Education	4.04	3.53
Non-Vocational Elementary Education	4.04	3.67
Non-Vocational Secondary Education	4.04	0.32
Non-Education Vocational Department	4.04	0.65

Table VII presents the mean scores by group for this variable. Table VIII shows the overall analysis and Table IX shows the analysis by group. The "F" analysis was used in the testing.

While a significant difference was found between upper division and lower division overall, further testing revealed that no single group reached the level of significance. Vocational education and non-vocational elementary education scores revealed the greatest variance in mean scores and did approach the level of significance as was illustrated in Table IX.

When compared to the norm score of 115.01 (Fitts, 1965), the researcher concluded that the scores of Montana State University students did not differ significantly from the norm group. Also, the researcher concluded that upper division students at Montana State University had more positive feelings about their personal behavior than lower division students. However, this was not true for all groups of students, particularly the non-vocational secondary education group where the lower division students had a higher mean score than the upper division students. In both cases, this group scored above the norm score indicating high positive feelings regarding their personal behavior.

VARIABLE: MORAL-ETHICAL SELF

Table X

Mean Scores	
Vocational Education Upper Division	73.10
Vocational Education Lower Division	69.76
Non-Vocational Elementary Education Upper Division	79.04
Non-Vocational Elementary Education Lower Division	69.04

Table X continued

Mean Scores	
Non-Vocational Secondary Education Upper Division	73.00
Non-Vocational Secondary Education Lower Division	72.48
Non-Education Vocational Department Upper Division	69.68
Non-Education Vocational Department Lower Division	68.60

Table XI

"F" Analysis Overall

Effect	Critical F $\alpha = .05$ df = 1	Calculated F
Program Level	3.89	5.59

Table XII

"F" Analysis by Group

Group	Critical F $\alpha = .05$ df = 1	Calculated F
Vocational Education	4.04	2.44
Non-Vocational Elementary Education	4.04	<u>5.64</u>
Non-Vocational Secondary Education	4.04	0.58
Non-Education Vocational Department	4.04	0.29

Table X illustrates the mean scores for each of the groups and Table XI gives the overall analysis using the "F" test. Since it was determined that a significant difference did exist overall, further testing was conducted to find which group(s) had contributed to the significance. Table XII indicates that only the non-

vocational elementary education group showed a significant difference between the upper and lower division with upper division students reporting higher scores on moral-ethical behavior.

When compared with the norm score of 70.33 (Fitts, 1965), the researcher determined that all upper division groups with the exception of the non-education group scored above the norm. Also, it was determined that all lower division groups with the exception of the non-vocational secondary education group scored below the norm. Scores overall revealed a more positive feeling toward moral-ethical behavior as students reached the upper levels of their undergraduate program. This does not mean, however, that moral-ethical behavior standards are necessarily high but only that students express more positive feelings about their behavior in this area.

One additional observation was that both groups of non-education students scored below the norm. This would indicate that either their moral-ethical standards are, in fact, lower than other groups, or that they held higher standards and based their responses accordingly. If their standards were higher than other groups, scores on this variable would tend to be distorted.

VARIABLE: PERSONAL SELF (WORTH)

Table XIII

Mean Scores

Vocational Education Upper Division	70.60
Vocational Education Lower Division	64.64
Non-Vocational Elementary Education Upper Division	70.00
Non-Vocational Elementary Education Lower Division	65.16
Non-Vocational Secondary Education Upper Division	70.20
Non-Vocational Secondary Education Lower Division	69.40
Non-Education Vocational Department Upper Division	67.08
Non-Education Vocational Department Lower Division	68.16

Table XIV

"F" Analysis Overall

Effect	Critical F $\alpha = .05$ df = 1	Calculated F
Program Level	3.89	6.63

Table XV

"F" Analysis by Group

Group	Critical F $\alpha = .05$ df = 1	Calculated F
Vocational Education	4.04	<u>9.49</u>
Non-Vocational Elementary Education	4.04	<u>6.09</u>
Non-Vocational Secondary Education	4.04	0.13
Non-Education Vocational Department	4.04	0.28

The null hypothesis for program level was rejected for this variable, personal self, indicating that there is a

significant difference in how upper division and lower division students at Montana State University perceive their own self worth. Table XIII presents the group means, Table XIV shows the overall analysis and Table XV demonstrates the groups responsible for the significance. Once again it was found that the vocational education and non-vocational elementary education groups were those reporting significant differences between upper division and lower division students with upper division students reporting more positive feelings about their personal self worth. No significance was found for either the non-vocational secondary education or non-education groups. In addition, it was observed that lower division students from the non-education group scored slightly higher than did their upper division counterparts.

When compared to the norm score of 64.55 (Fitts, 1965), the researcher determined that all Montana State University groups had more positive self worth feelings than did the norm group.

VARIABLE: SOCIAL SELF

Table XVI

Mean Scores

Vocational Education Upper Division	71.00
Vocational Education Lower Division	67.44
Non-Vocational Elementary Education Upper Division	73.56
Non-Vocational Elementary Education Lower Division	69.12

Table XVI continued

Mean Scores	
Non-Vocational Secondary Education Upper Division	71.48
Non-Vocational Secondary Education Lower Division	68.72
Non-Education Vocational Department Upper Division	69.76
Non-Education Vocational Department Lower Division	68.48

Table XVII

"F" Analysis Overall

Effect	Critical F $\alpha = .05$ df = 1	Calculated F
Program Level	3.89	7.44

Table XVIII

"F" Analysis by Group

Group	Critical F $\alpha = .05$ df = 1	Calculated F
Vocational Education	4.04	2.82
Non-Vocational Elementary Education	4.04	<u>4.69</u>
Non-Vocational Secondary Education	4.04	1.20
Non-Education Vocational Department	4.04	0.37

Table XVI presents the mean scores for each group. Table XVII demonstrates the null hypothesis rejection and Table XVIII provides data to show the group that contributed to the significance. Observation of Table XVIII indicates that only non-vocational elementary education reached the level of significance and thus the researcher concluded that

upper division students in this group have more positive perceptions of their social selves than do lower division students.

When compared to the norm score of 68.14 (Fitts, 1965), the researcher observed that all Montana State University groups scored above the norm indicating high positive feelings about their social behavior. Again, non-education students scored lower than the education students at both the upper and lower division levels.

VARIABLE: VARIABILITY TOTAL

Table XIX

Mean Scores

Vocational Education Upper Division	39.68
Vocational Education Lower Division	44.32
Non-Vocational Elementary Education Upper Division	41.72
Non-Vocational Elementary Education Lower Division	48.52
Non-Vocational Secondary Education Upper Division	38.20
Non-Vocational Secondary Education Lower Division	45.24
Non-Education Vocational Department Upper Division	48.48
Non-Education Vocational Department Lower Division	46.84

Table XX

"F" Analysis Overall

Effect	Critical F $\alpha = .05$ df = 1	Calculated F
Program Level	3.89	8.83

Table XXI

"F" Analysis by Group

Group	Critical F $\alpha = .05$ df = 1	Calculated F
Vocational Education	4.04	2.11
Non-Vocational Elementary Education	4.04	3.67
Non-Vocational Secondary Education	4.04	<u>5.29</u>
Non-Education Vocational Department	4.04	0.15

This variable measures inconsistency of student responses in their answers from one area of self perception to another. Findings showed a significant difference between upper division and lower division students with lower division students being more inconsistent than upper division students.

Table XIX presents group mean scores and Table XX shows the overall "F" analysis by group. Table XXI provides the data that demonstrate the group, non-vocational secondary education, that contributed to the significance.

For this variable, it was noted that high scores reflected higher levels or degrees of inconsistency than did lower scores.

For one of the groups, non-education, it was found that upper division students actually showed a higher level of inconsistency than did the lower division students in this group. The opposite was the case for all the other groups, all education students. This finding would

indicate that non-education students actually become more unsure of their self perceptions as they progress through their university experience.

When compared to the norm score of 48.53 (Fitts, 1965), it was determined that all Montana State University groups reflected a lower level of variability than did the norm group, and that only the upper division non-education group score of 48.48 approached the national norm.

SUMMARY OF "TOTAL P" FINDINGS BY MAJOR FIELD

Vocational Education

Probably the most significant finding for this group was the difference between lower division and upper division scores. "Total P" scores improved by 21.88 points from lower to upper division, the most for any of the groups. The improvement in scores from lower to upper division would indicate that the self-concept of university age students is susceptible to change. More importantly, this finding indicates an ability to change in a positive direction. This contradicts the earlier findings of researchers that concluded that self-concept changes in college students were not readily achieved. (Boyle, 1967; Hamner, 1968; and Davis, 1969)

One finding for this group was that the lower division "Total P" mean score, 341.64, was the lowest score for any

of the eight (8) groups. This score was slightly below the norm score of 345.57 (Fitts, 1965). This gave reason to consider that some effect, or possibly a combination of effects, was responsible for the increased scores in this group from lower to upper division.

In direct contrast to the low scores for the lower division group, the upper division group scored 363.52, the second highest of all eight (8) groups. This indicated that vocational education upper division students tended to have a high self regard, a factor important in their future role as vocational educators.

Non-Vocational Elementary Education

As was the case for vocational education, this group reported significantly higher scores for upper division students as compared to lower division students. Upper division scores were 19.76 points higher than lower division scores and the upper division mean score of 366.00 was the highest of any of the eight (8) groups.

Elementary education majors frequently score high on the Tennessee Self Concept Scale (Parks, 1974; and Nystul, 1975). Thus, the high scores for non-vocational elementary education on the "Total P" variable were consistent with previous research findings. It appears that, similar to that of students in vocational education, the self-concept

of persons this age is susceptible to change.

Non-Vocational Secondary Education

No significant difference was found between the upper and lower division groups on the "Total P" variable. While upper division students scored higher than lower division students, the difference was only 3.92 mean points. Both groups, however, scored well above the norm score of 345.57 (Fitts, 1965). The upper division score was 358.60 and the lower division score was 354.68.

One observation for this group was that lower division students scored higher than any of the other three (3) lower division groups and higher than the non-education upper division group.

Overall, this group reported high positive self-concept scores but showed little change from lower to upper division.

Non-Education from Vocational Department

Less than one (1) mean score point (.84) difference was reported between the lower and upper division students. While the lower division students reported a score of 348.56, which was comparable to the norm score and other lower division groups, the upper division group did not compare as favorably, especially when compared to the other upper division groups. While the upper division mean score of 349.40 is slightly above the norm, it was 9.20 mean

points below non-vocational secondary education, 14.12 mean points below vocational education and 16.60 mean points below non-vocational elementary education. While the mean scores obviously varied to some degree, testing did not reveal any significant differences between the groups. Nonetheless, reasons why this group, the only non-education group in the study, would report lower self-concept scores at the upper division level than any of the other three (3) groups, and why there was such a slight change in the scores from lower to upper division levels provide challenging questions for further study. Is there a lack of attention to the development of self-concept in this area? Are the instructional programs in this area product oriented instead of process oriented? Do those who find themselves in this area simply have a lower level of self esteem than the students in the other areas researched?

Conclusion of Major Findings

Chapter IV presented the major findings of this study. It was determined that;

1. No significant differences were found when groups were compared by major field.
2. In general, upper division students have more positive self concepts than do lower division students. However, significant differences were found only in non-vocational elementary education and

vocational education students.

3. Montana State University students overall reflect a positive self-concept when compared to the norm scores of the Tennessee Self Concept Scale (Fitts, 1965).

CHAPTER V

Summary, Conclusions, Implications and Recommendations

Introduction

Chapter V first presents a summary of the study and then the major conclusions reached through the study. Implications of the findings are then presented, followed by a list of recommendations for further research and use of the Tennessee Self Concept Scale (Fitts, 1965) in teacher training.

Summary

The overall purpose of this study was to determine if there were significant differences in the self-concepts of vocational education teacher trainees, non-vocational education teacher trainees and non-education students from the vocational departments at Montana State University in Bozeman, Montana.

The Tennessee Self Concept Scale (Fitts, 1965) was selected as the instrument to be used in soliciting student responses about their self perceptions in a number of different areas.

Data collection took place during the fall and winter terms of the 1975-76 school year with two hundred (200) students from four (4) different major fields, completing

the Tennessee Self Concept Scale.

The data were processed and each of the three (3) null hypotheses was tested through the use of a Two-Way Analysis of Variance procedures using the "F" statistic.

The findings revealed that there were no significant differences in self concepts scores between the four (4) groups when compared by major field of study. Also, no significant interaction effect was found to exist. However, a significant difference was found between upper and lower division students overall with upper division students reporting higher positive scores. Further testing revealed that two groups, vocational education and non-vocational elementary education, were primarily responsible for the significance.

One additional finding and a general question that was answered was that non-education majors reported lower positive scores overall than did any of the three education groups.

Conclusions

The following conclusions were reached through a review of literature and through the findings of this study.

Literature Review:

1. The development of a positive self-concept is important in the total development of the child.

2. Academic achievement is enhanced when the child has or develops a good self-concept.
3. A teacher with a good self-concept can have a positive effect on the development of a child. A teacher with a poor self-concept can have a negative effect on the development of a child.
4. The self-concept of a child is a relatively stable entity at age eleven (11) or twelve (12) and thus difficult to change.
5. While self-concept is admittedly difficult to measure, much research has provided needed insight into this construct.
6. Limited self-concept research has been conducted in teacher education, especially in the area of vocational teacher training.
7. The Tennessee Self Concept Scale (Fitts, 1965) has been used in numerous studies in the total education field.

Study Conclusions:

1. Montana State University students overall have positive self-concepts.
2. Upper division students at Montana State University tend to have more positive self-concepts than do lower division students.

3. Based on major field of study, at both the upper and lower divisions, self-concepts of Montana State University students do not differ significantly.
4. While not statistically significant, mean scores indicate that vocational education majors at Montana State University tend to have more positive self-concepts than do non-education majors from the same departments.
5. While not statistically significant, differences in mean scores indicate that education majors at Montana State University tend to have more positive self-concepts than non-education majors.
6. Elementary education majors tend to have more positive self-concepts than other education majors.
7. Contrary to the preponderance of contemporary thought and previous research findings, it is possible for individuals of adult age to develop increasingly positive self concepts.
8. The Tennessee Self Concept Scale (Fitts, 1965) is a viable instrument for measuring self-concepts of university-level students.

9. While the Tennessee Self Concept Scale (Fitts, 1965) overall is useful in measuring self-concept of university-level students, there was a relative inability of seven (7) of the independent variables to distinguish between upper and lower division students.

Implications

The implications of this study are presented below. The findings imply the following:

1. While self-concept is generally recognized as a relatively stable entity at age eleven or twelve, it is possible to develop a more positive self-concept even at college age. If this is true, it holds that the specific factors that contribute to improvement should be identified and every effort be made to emphasize these factors in the teacher training program.
2. The non-vocational elementary education and vocational education curriculums at Montana State University contain activities, experiences, and processes that directly contribute to the positive self-concept development of students majoring in these fields.

3. The non-vocational secondary education program does not readily affect the self-concept of its students. However, since these students generally have positive self-concepts, this should not be a real concern for the programs in this area.
4. The non-education programs of Agriculture, Business, Home Economics, and Industrial Arts have no apparent effect on the self-concept development of students in these areas. Since overall scores in these areas are low, attention should be given to self-concept development in these programs.
5. Since education majors at Montana State University tend to have good self-concepts, this should be an asset to them as future teachers.

Recommendations

As a result of this study, the following recommendations are made for (1) future research in the area of self concept; (2) use of the Tennessee Self Concept Scale (Fitts, 1965) in teacher education and (3) for researchers using college-age students in self-report studies.

Future Research in Self-Concept:

1. Studies should be undertaken to identify the factors that contribute to positive self-concept development in teacher training.

2. Longitudinal research should be conducted on randomly selected subjects of this study to assess the relationship of their reported self-concept and their success as teachers and in their ability to develop positive self-concepts in their students.
3. This study should be replicated in the near future to provide additional insight into self-concept as it relates to teacher education and for a better understanding of the construct of self-concept as a whole.
4. Within the broad field of vocational education, research should be conducted to determine if there are any significant differences in self-concepts from one major area to another.

Use of the Tennessee Self Concept Scale in Teacher Education

1. Prior to being officially admitted into a teacher training program, each student should be given the Tennessee Self Concept Scale. The results could be used as a counseling tool in guiding students interested in a career in teaching. Students with low scores who still desire admittance into a teacher training

program would be identified and efforts made to help the student develop in this critical area.

2. Upon completion of a teacher training program, students who have taken the TSCS upon admittance should be given the instrument again to assess the impact of a specific teacher training program on self-concept development.

Use of College Age Students in Self-Report Studies:

1. Maintain complete confidentiality of student results to enhance student cooperation.
2. Explain fully the purposes of the study and provide feedback to the students as to the results of the study.

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APPENDICES

Appendix A

**TENNESSEE
SELF CONCEPT SCALE**

COMPUTER SCORED EDITION

by

William H. Fitts, PhD

Published by

Counselor Recordings and Tests

Box 6184 - Acklen Station

Nashville, Tennessee 37212

DIRECTIONS: Fill in your name and other information on the separate answer sheet.

The statements in this inventory are to help you describe yourself as you see yourself. Please answer them as if you were describing yourself to yourself. Read each item carefully; then select one of the five responses below and fill in the answer space on the separate answer sheet.

Don't skip any items. Answer each one. Use a soft lead pencil. Pens won't work. If you change an answer, you must erase the old answer completely and enter the new one.

RESPONSES	Completely False	Mostly False	Partly False and Partly True	Mostly True	Completely True
	C	M		M	C
	F	F	PF - PT	T	T
	1	2	3	4	5

TENNESSEE SELF CONCEPT SCALE

1. I have a healthy body	1
2. I am an attractive person	2
3. I consider myself a sloppy person	3
4. I am a decent sort of person	4
5. I am an honest person	5
6. I am a bad person	6
7. I am a cheerful person	7
8. I am a calm and easy going person	8
9. I am a nobody	9
10. I have a family that would always help me in any kind of trouble	10
11. I am a member of a happy family	11
12. My friends have no confidence in me	12
13. I am a friendly person	13
14. I am popular with men	14
15. I am not interested in what other people do	15
16. I do not always tell the truth	16
17. I get angry sometimes	17
18. I like to look nice and neat all the time	18
19. I am full of aches and pains	19
20. I am a sick person	20
21. I am a religious person	21
22. I am a moral failure	22
23. I am a morally weak person	23
24. I have a lot of self-control	24
25. I am a hateful person	25
26. I am losing my mind	26
27. I am an important person to my friends and family	27
28. I am not loved by my family	28
29. I feel that my family doesn't trust me	29
30. I am popular with women	30
31. I am mad at the whole world	31
32. I am hard to be friendly with	32
33. Once in a while I think of things too bad to talk about	33
34. Sometimes when I am not feeling well, I am cross	34
35. I am neither too fat nor too thin	35
36. I like my looks just the way they are	36
37. I would like to change some parts of my body	37
38. I am satisfied with my moral behavior	38
39. I am satisfied with my relationship to God	39
40. I ought to go to church more	40

41. I am satisfied to be just what I am	41
42. I am just as nice as I should be	42
43. I despise myself	43
44. I am satisfied with my family relationships	44
45. I understand my family as well as I should	45
46. I should trust my family more	46
47. I am as sociable as I want to be	47
48. I try to please others, but I don't overdo it	48
49. I am no good at all from a social standpoint	49
50. I do not like everyone I know	50
51. Once in a while, I laugh at a dirty joke	51
52. I am neither too tall nor too short	52
53. I don't feel as well as I should	53
54. I should have more sex appeal	54
55. I am as religious as I want to be	55
56. I wish I could be more trustworthy	56
57. I shouldn't tell so many lies	57
58. I am as smart as I want to be	58
59. I am not the person I would like to be	59
60. I wish I didn't give up as easily as I do	60
61. I treat my parents as well as I should (Use past tense if parents are not living)	61
62. I am too sensitive to things my family say	62
63. I should love my family more	63
64. I am satisfied with the way I treat other people	64
65. I should be more polite to others	65
66. I ought to get along better with other people	66
67. I gossip a little at times	67
68. At times I feel like swearing	68
69. I take good care of myself physically	69
70. I try to be careful about my appearance	70
71. I often act like I am "all thumbs"	71
72. I am true to my religion in my everyday life	72
73. I try to change when I know I'm doing things that are wrong	73
74. I sometimes do very bad things	74
75. I can always take care of myself in any situation	75
76. I take the blame for things without getting mad	76
77. I do things without thinking about them first	77
78. I try to play fair with my friends and family	78
79. I take a real interest in my family	79
80. I give in to my parents.(Use past tense if parents are not living)	80
81. I try to understand the other fellow's point of view	81
82. I get along well with other people	82
83. I do not forgive others easily	83
84. I would rather win than lose in a game	84
85. I feel good most of the time	85
86. I do poorly in sports and games	86
87. I am a poor sleeper	87
88. I do what is right most of the time	88
89. I sometimes use unfair means to get ahead	89
90. I have trouble doing the things that are right	90
91. I solve my problems quite easily	91
92. I change my mind a lot	92
93. I try to run away from my problems	93
94. I do my share of work at home	94
95. I quarrel with my family	95
96. I do not act like my family thinks I should	96
97. I see good points in all the people I meet	97
98. I do not feel at ease with other people	98
99. I find it hard to talk with strangers	99
100. Once in a while I put off until tomorrow what I ought to do today	100

STATISTICS

25 SUBJECTS SCORED (EXCLUDING ANY SUBJECTS SKIPPED DUE TO SEQUENCE ERROR)

SCALE	MEAN	STANDARD DEVIATION
-----	-----	-----
SC	34.720	6.3870
TZF	1.048	.3045
NET C	42.200	14.0860
TOT C	31.000	10.4682
TOTAL	341.640	34.9386
ROW 1	127.040	9.4846
ROW 2	104.400	14.7309
ROW 3	110.200	14.1156
COL A	70.280	8.2287
COL B	69.760	8.8989
COL C	64.640	7.3706
COL D	69.520	8.9495
COL E	67.440	6.3646
V TOT	44.320	12.1337
V COL	28.520	9.3725
V ROW	15.800	5.3541
EST 0	107.480	27.2047
EST 9	14.520	8.0422
EST 4	25.960	8.4680
EST 3	22.760	15.6452
EST 2	21.040	6.7976
EST 1	15.720	8.3493
CP	54.400	10.9354
GM	95.320	10.3189
PSY	67.920	5.9925
PD	74.040	11.3229
A	21.960	9.6975
PI	11.440	3.7202
ADS	12.560	13.4322

Appendix B
Group Profile

Appendix C

November 20, 1975

Dear Carol:

I am a professor in the School of Business and am in the process of gathering data for my doctoral dissertation. I am working in the area of "Self Concept" and will be comparing four (4) groups of MSU students. Three of the groups are education majors and one group is non-education.

Using random sampling procedures, you are one of the 200 students selected to participate in the study. If you are willing to cooperate with me, your total time commitment will be about 15 minutes. It will involve your completing a series of questions designed to measure your self concept.

The study is, of course, extremely important to me; and I am sure that you will be interested in your own individual profile. One important point is that no individual scores will be reported in the research findings, but they will be made available to each student on an individual basis.

If you will help me, please stop by my office, 316 Reid Hall, sometime between 9-12 a.m. or 1-3 p.m. or come to one of the following group sessions:

Monday, December 1	4 p.m.	Reid Hall, Room 303
	5 p.m.	"
	6 p.m.	"
Tuesday, December 2	5 p.m.	Reid Hall, Room 303
	6 p.m.	"
	7 p.m.	"
Wednesday, December 3	7 p.m.	Reid Hall, Room 303
	8 p.m.	"
	9 p.m.	"

I hope to complete my data collection by the above date as I will be out of my office from December 5 to December 10.

I sincerely hope you will be interested in cooperating with me, and I thank you in advance for your help. If you have any questions, please call me at 994-4421.

Sincerely,

Norm Millikin

Appendix D

SUBJECT CONSENT FORM

I am asking you to participate in a study that has as its purpose that of measuring self concept of four student groups at Montana State University. Your part is to complete a self concept test that will take you approximately 15 minutes. Your individual score will be kept strictly confidential and only group scores will be reported in the research findings. If however you wish to look at your own score I will be happy to make it available to you. If at any time you have a question regarding your involvement I will be available to you through the School of Business. There are no experimental groups in this study therefore no one will be subjected to any specific treatment. It is merely a study that will allow me to describe the self concepts of specific student groups. If at any time you do not wish to be included in this study you are certainly free to withdraw.

Please sign here if you are willing to cooperate in this project.

Signature _____ Date _____

Appendix E

February 19, 1976

Dear Rene:

I am a professor in the School of Business and am in the process of gathering data for my doctoral dissertation. I am working in the area of "Self Concept" and will be comparing four (4) groups of MSU students. Three of the groups are education majors and one group is non-education.

Using random sampling procedures, you are one of the 200 students selected to participate in the study. If you are willing to cooperate with me, your total time commitment will be about 15 minutes. It will involve your completing a series of questions designed to measure your self concept.

The study is, of course, extremely important to me; and I am sure that you will be interested in your own individual profile. One important point is that no individual scores will be reported in the research findings, but they will be made available to each student on an individual basis.

If you will help me, please stop by my office, 318 Reid Hall, during one of the listed times within the next two weeks, February 23-March 4.

Monday - Friday	10:00 a.m.	3:00 p.m.
	10:30 a.m.	3:30 p.m.
	11:00 a.m.	4:00 p.m.
	11:30 a.m.	4:30 p.m.
	12:00 noon	5:00 p.m.
	12:30 p.m.	

If none of the above listed times are convenient for you, please call me at 994-4421, and I will set up a time to fit your schedule.

About 150 of your fellow students have completed my questionnaire, and I need your help to complete my study. If you can give me 15 minutes of your time, it will be sincerely appreciated.

Sincerely,

Norm Millikin

