The effect of a values clarification process on students at Northern Montana College
by Thelma Gore Anderson

A thesis submitted in partial fulfillment of the requirements for the degree of Doctor of Education
Montana State University
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Abstract:
The problem of the study was to compare the effect of a lecture discussion method of instruction with a method utilizing a process of values clarification on the interpersonal values and cognitive achievement of identified postsecondary students, to measure the relationship between values change and change in cognitive achievement, and to measure the stability of students' values.

Cognitive achievement was measured with an instrument designed for the study. The Survey of Interpersonal Values was selected to measure six value dimensions: support, conformity, recognition, independence, benevolence, and leadership.

The major findings of the study were that: (1) cognitive achievement was independent of the method of instruction; (2) the method of instruction did not influence a basic change in students' values; (3) change in cognitive achievement was unrelated to change in values in the values clarification group; (4) while a positive correlation was found between change in cognitive achievement and change in the conformity value for students in the lecture-discussion group, there was no relationship between change in cognitive learning and change in the other five values measured by the instrument; and (5) overall stability of values over a six-month period was indicated for students in the values clarification group, and except for the conformity value, values for students in the lecture-discussion group were also unchanged.

The major recommendations of this study were that: (1) other studies be conducted to measure the effect, on interpersonal values of variables not considered in this study; (2) other studies be conducted to investigate the effect of the values clarification process as measured by instruments other than those used in this study; and (3) a comparison be made of the effect of the four identified values education approaches currently in use in schools in the nation.

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by

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A thesis submitted in partial fulfillment
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of

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ABSTRACT

The problem of the study was to compare the effect of a lecture-discussion method of instruction with a method utilizing a process of values clarification on the interpersonal values and cognitive achievement of identified postsecondary students, to measure the relationship between values change and change in cognitive achievement, and to measure the stability of students' values.

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The major recommendations of this study were that: (1) other studies be conducted to measure the effect on interpersonal values of variables not considered in this study; (2) other studies be conducted to investigate the effect of the values clarification process as measured by instruments other than those used in this study; and (3) a comparison be made of the effect of the four identified values education approaches currently in use in schools in the nation.

Chapter 1

INTRODUCTION

Young people today are caught in an intricate web of conflict between the need to compete in a highly technological society and the need to focus attention on human rights. While this discord is a concern for young people preparing for a diversity of careers, as it influences the management of their own lives, it is particularly evident for graduates of business programs who will be charged with managerial decision-making, as emphasized by Peterson and Park (1975:623): "How much will we focus upon competition, striving, property rights, and social conformity on the one hand and cooperation, gratification, personal rights, and personal expression on the other?"

The importance of profit, the traditional goal of American business, must today be weighed in conjunction with the external pressures of governmental laws and regulations, employees' needs, consumerism, and environmentalism (Rudelius et al, 1981). Decisions concerning that balance in the goals of a business firm will be based upon the judgment of the executives in the firm, who have "only recently accepted as part of their personal codes the responsible use of power and their role in the effects the firm and its policies have on the larger society" (Cavanaugh, 1976:101).

How to assist young people to develop a personal code and on whom the responsibility for such assistance devolves has been

the concern of parents, educators, theologians, and the business community. The schools have been charged with the mission of teaching the students the skills they need to "sort out the confusion and conflicts . . . and to find the things they value" (Howe and Howe, 1975:18).

This charge was supported by Cavanaugh (1976), Lakoff (1981), Adams (1969), Gustafson (1970), and others, with Lerner seeing the teacher playing "the magical role of the values catalyst" (1976:127). These authors agreed that an individual's personal code is based on the values that that individual cherishes and called upon the schools to provide a forum for values dialogue, to assist students in clarifying their own values.

Supporting the view that schools have a responsibility for providing a value framework was the 12th Annual Gallup Poll, which indicated that 79 percent of those persons surveyed were in favor of moral instruction in the public schools (Gallup, 1980). Muller (1980:57), stating that "our universities are turning out highly skilled barbarians," specifically emphasized the need for post-secondary students to have the opportunity to participate in a values dialogue to achieve their maximum potential.

Assessing the need for values dialogue is one thing. In view of the sparseness of experimental research and the lack of usable models, structuring a model for implementing such dialogue is quite another (Purpel and Ryan, 1975; Weaver and Britt, 1978).

In 1978, Weaver and Britt conducted a survey to examine values education programs being proposed or implemented by the 50 state departments of education in the United States. Their survey focused on contemporary values education approaches as represented by the following typology:

1. Inculcation. To instill or internalize certain values in students. To change the values of students so they more nearly reflect certain desired values.

2. Moral development. To help students develop more complex moral reasoning patterns based on a higher set of values. To urge students to discuss the reasons for their value choices and positions, not merely to share with others, but to foster change in the states of reasoning of students.

3. Value analysis. To help students use logical thinking and scientific investigation to decide value issues and questions. To help students use rational, analytical processes in internalizing their values.

4. Values clarification. To help students become aware of and identify their own values and those of others. To help students to communicate openly and honestly with others about their values. To help students use both rational thinking and emotional awareness to examine their personal feelings, values, and behavior patterns (1978:3).

In introducing their report, Weaver and Britt indicated that while a great deal of educational thought and writing had gone into the development of these approaches, little research had been devoted to determining their effectiveness.

Their survey included a question concerning what approach in values/moral education, if any, the state departments of education recommended. Upon examining the 38 responses, the authors reported that values clarification was the values/moral education approach "most widely recommended, required, or implied. . . ."(1978:6). Such an approach, which focuses on the areas of communication, rational thinking, and emotional awareness, is consistent with Kur and Clement's (1981:32-33) design for addressing social responsibility in managerial decision-making classes.

> We energetically create and support an openness to other values. Upon graduation, students will enter a managerial world where people with widely varying values must interact, make decisions, and conduct themselves in accordance with those decisions. Therefore, we try to give our students as much experience as possible in hearing from others whose values diverge from their own and in finding the common ground which provides the basis for joint action. . . .
>
> The quality of their decision-making will be enhanced if they can separate opinion from fact, think divergently and creatively about the alternatives available to them, and recognize and deal with value conflicts. . . .
>
> Our students frequently report that our course is the only course they have had which legitimizes emotion as a critical factor in managerial decision-making. This is because the social responsibility of management frequently involves emotional issues and energetic engagement between advocates of opposing and often extreme positions.

Tall, terming the values clarification approach "educationally sound" (1977:388), was supported by Kirschenbaum, who commented on the lack of valid research as to its effectiveness. Kirschenbaum (1975:3) has described values clarification as "an intervention

consisting of a form of questioning and a set of activities or 'strategies' . . . designed to help individuals learn a particular valuing process and to skillfully apply that process to value-laden areas and moral dilemmas in their own lives."

According to Simon and others (1972), the goal of values clarification is to help students to develop a process of valuing and to apply this process to existing and emerging values.

Rokeach's (1968:61) definition of a person's value system as a "learned organization of rules for making choices and for resolving conflicts," and Rogers' (1975:4) reflection that "the idea of process as opposed to static knowledge is the only thing that makes sense as a goal for education in a changing world" provided additional impetus for an investigation of the effectiveness of the values clarification process.

The manifest need for values education as revealed in the literature and the limited knowledge about a way to proceed provided the basis for this study.

Statement of the Problem

The problem of the study was fourfold: (1) to compare the effect of a conventional lecture-discussion method of instruction with the effect of a method of utilizing the values clarification process on the interpersonal values of students enrolled in two sections of a Personal Development course at Northern Montana College

during Spring Quarter, 1981; (2) to compare the effect of a conventional lecture-discussion method of instruction with the effect of a method utilizing the values clarification process on students' cognitive achievement in the course considered in the study; (3) to measure the relationship between any change in interpersonal values and any change in cognitive achievement; and (4) to determine the stability of those values after approximately six months.

Procedures

Each spring quarter the researcher teaches a course, BE 120, Personal Development, which addresses such topics as needs and motivation, understanding yourself and your career, attitudes, human relations, professional relations, values, communication, problem-solving, decision-making, and leadership. This course is offered for two credits and meets for 20 class periods. During Spring Quarter, 1981, two sections of the class were offered, with both sections meeting on Tuesdays and Thursdays for fifty minutes each day. This study was designed to provide a different treatment for each section and to measure the results. In one section, the class was conducted using the conventional lecture-discussion method; in the other section, eight class periods were devoted to values and values clarification using specific strategies as identified in Values Clarification (Simon, Howe, and Kirschenbaum, 1972), with the remaining class periods conducted using a traditional lecture-discussion method. It was not

possible to assign the students randomly to the sections; however, the determination of which section received which treatment was established by the flip of a coin.

At the beginning of the quarter, students in both sections were asked to complete the Survey of Interpersonal Values (Gordon, 1976), and an instrument designed to measure cognitive achievement in the topics in the course outline of the course considered. A data sheet was also included to elicit descriptive information. At the end of the quarter, students were again asked to complete both the Survey of Interpersonal Values (SIV) and the cognitive instrument. Approximately six months after the end of the treatment (November, 1981), the SIV was again administered to those participants who had returned to the campus for Autumn Quarter, 1981.

Initial group equivalence on the pretests was analyzed using a *t*-test to test the significance of the difference between the means following an *F*-test to determine the homogeneity of the variances. Data on the posttests were analyzed with analyses of covariance. A correlation coefficient was then employed to measure the relationship of each student's score change on the cognitive instrument with score changes on each of the six scales of the SIV. Data from the follow-up administration of the SIV were analyzed to determine the stability of the groups' values, using a *t*-test for correlated data.

General Questions Answered

1. Did the method of instruction affect interpersonal values of students?

2. Did the method of instruction affect cognitive achievement in the course considered?

3. Did students' values remain stable over a six-month time period?

Limitations

1. The study was limited by the following assumptions:

a. That a time frame of eight class periods focused on values clarification was appropriate.

b. That there was no difference between sections produced by the same teacher (the researcher) teaching both sections.

c. That there was no difference between sections produced by the time of day each section met.

d. That the six values represented by the six scales of the Survey of Interpersonal Values were discrete.

e. That the treatment of values in this study was congruent to the six scales of the SIV.

f. That communication between students in both sections during the quarter did not affect the results of the study.

Delimitations

1. Only students enrolled in the two sections of Personal Development at Northern Montana College during 1981 were considered.

2. Scores on the midquarter exam were not considered.

3. Sex, age, and years of work experience were included for descriptive purposes only.

4. Course major and year in school were reported for descriptive purposes only.

5. In considering interpersonal values, only the values represented in the six scales of the SIV were considered.

Definition of Terms

For the purpose of this study, the following definitions apply. Each term is either defined by the researcher or is extracted from educational literature, as referenced.

Personal Development course. (BE 120) A two-credit course offered each spring quarter by the Department of Business at Northern Montana College. The course covers the following topics: needs and motivation, understanding yourself and your career, attitudes, human relations, professional relations, values, communication, problem-solving, decision-making, and leadership.

Cognitive. In this study, the term refers to the first three categories of the cognitive domain, based on Bloom's taxonomy of

educational objectives as described by Krathwohl and Payne (1971:29).

> Knowledge - Recall or recognition in an appropriate context.
>
> Comprehension - The ability to paraphrase knowledge accurately, to explain or summarize in his own words, or to show logical extensions in terms of implications or corollaries.
>
> Application - The ability to select a given abstraction appropriate for a new situation and apply it.

Cognitive instrument. The instrument constructed for the study to measure knowledge, comprehension, and application of the topics in the course outline of the Personal Development course.

Affective. The feeling or emotional aspect of experience and learning.

Affective instrument. The Survey of Interpersonal Values (Gordon, 1976).

Value (general term). Worth (Lerner, 1976:13).

Values (specific). Also referred to as interpersonal values, as measured by the six scales of the Survey of Interpersonal Values: SUPPORT, CONFORMITY, RECOGNITION, INDEPENDENCE, BENEVOLENCE, and LEADERSHIP.

Attitudes. An organization of several beliefs focused on a specific object or situation, predisposing one to respond in some preferential manner (Rokeach, 1968:159).

Values clarification process. A method of instruction designed to help students become aware of the beliefs and behaviors they prize and would be willing to stand up for, to consider alternative modes of thinking and acting, to consider consequences, and to make choices (Simon et al, 1972).

Values clarification strategies. Specific activities used in the values clarification process. (Simon et al, 1972).

Independent variables. Methods of instruction; either conventional lecture-discussion or values clarification process.

Dependent variables. The Survey of Interpersonal Values and the cognitive instrument constructed for the study.

Pretests. The SIV and the cognitive instrument administered at the beginning of Spring Quarter, 1981.

Posttests. The SIV and the cognitive instrument administered at the end of Spring Quarter, 1981.

Follow-up tests. The SIV administered approximately six months after the posttests to participants in the study who returned to campus Autumn, 1981.

Stability. Unchangeableness.

SUMMARY

The conflict between corporate and personal values challenges young people to establish their own personal codes to respond to the demands of today's society. While this conflict is particularly evident for those persons pursuing management careers in the business community, it also applies to young people seeking other careers, as the conflict influences the management of their own lives.

The schools have been charged with the responsibility for assisting students in developing a personal code by providing a forum for values dialogue. This study is concerned with enabling certain postsecondary students to participate in such a forum and in measuring its effect in both the affective and cognitive domains.

Chapter 2 contains a review of the literature as it pertains to values education.

Chapter 2

REVIEW OF LITERATURE

The problem of this study was to compare the effect of a particular method of instruction on the interpersonal values and cognitive achievement of identified postsecondary students at Northern Montana College. This chapter consists of a review of the literature pertaining to the study and is organized as follows:

1. Need for values education
2. The schools' responsibility for values education
3. Recent trends in values education
4. Current research in values education
5. Summary

Need for Values Education

The neglect of values education in the schools is a concern of authorities as reported in the literature, particularly in view of the challenges to traditional values in recent decades (Alschuler, 1975; Howe and Howe, 1975; Muller, 1980; Lerner, 1976; Sizer and Sizer, 1970). Lerner contended that the neglect began with the nation's early commitment to the separation of Church and State and was reinforced by the political impact of early universities, citing Jefferson's University of Virginia as an example of hiring only those faculty members who espoused the "right" political values. The Industrial Revolution, focusing interest of business and education

leaders on the development of marketable skills as the major purpose of education, also contributed to this neglect. Lerner then proceeded to suggest that the educational system itself bears some responsibility for the disarray evident in values education, with attention to such education being regarded by conservatives as not basic enough and by intellectuals as leading to consensus and conformity.

Lerner (1976:13) described the "fiery centrality of values," and the importance of an individual's value system in the conduct of his affairs, since that value system limits that person's perception of reality. Support for this view was found in the literature (Rokeach, 1968; Allport, 1961; Alschuler, 1975; Howe and Howe, 1975). Howe and Howe (1975:17) defined values as "the things we are for and the things we are against" and expanded on this definition:

> They give purpose and direction to our lives. If our values are clear, consistent, and soundly chosen, we tend to live our lives in meaningful and satisfying ways. If we lack values, or our values are confused and conflicted, we tend to live our lives in troubled and frustrating ways.

Values are the basis for the decision-making process incumbent upon young people, allowing them to develop inner strengths to make moral judgments with confidence, to know the consequence of their actions, and to be accountable for those actions (Adams, 1969; Gustafson, 1970). Peterson and Park (1975:263) posed the question, "How much emphasis will be given to corporate, production, and concentration values, and how much to human, consumer, and

distribution values?" Indicating that planning for life and for a career is based on an individual's values, Cavanaugh (1976:1) asserted that "to deny the importance of values is blind and obtuse."

The Schools' Responsibility for Values Education

Given the importance of values education and the school's structural position in society, educators are urged to provide a forum for values dialogue so that students can become aware of their responsibilities in making moral decisions (Howe and Howe, 1975). Gustafson (1970:20) warns that while "there is no way to guarantee that they will become morally better persons," greater sophistication on the part of moral judgment-making can and must be achieved by students.

Support for this view was evident from a survey of Phi Delta Kappa members in 1972 (Purpel and Ryan, 1975:660). Members of this organization were asked to rank 18 goals for education. Following communications skills as ranking first, and pride in work equated with a feeling of self-worth ranking second, "developing good character and self-respect" was ranked third. This goal was defined as follows:

1. Develop moral responsibility and a sound ethical and moral behavior.

2. Develop the student's capacity to discipline himself to work, study, and play constructively.

3. Develop a moral and ethical sense of values, goals, and processes in a free society.

4. Develop standards of personal character and ideas.

Indications that the majority of the general public concurred with the professionals in the need for moral instruction in the public schools appeared in the 12th Annual Gallup Poll (1980) which found that 79 percent of those persons surveyed were in favor of the school's providing such instruction.

This chapter has thus far addressed the perceived need for values education and the school's responsibility for providing an opportunity for students to engage in values dialogue. To be considered now are recent trends in this dimension of the school's curriculum.

Recent Trends in Values Education

As reported in Chapter 1, Weaver and Britt (1978) surveyed the departments of education of the 50 United States concerning the current status of values education, revealing four major approaches:

Inculcation - To instill or internalize certain values in students. To change the values of students so they more nearly reflect desired values.

Resistance was found in the literature to inculcation--also termed moralizing and indoctrination--with Gustafson (1970:22) describing it as "packaged moral and spiritual values to be learned

and sometimes applied," and Peterson (1970:52) portraying it as "hand[ing] on content in a secondhand way."

Moral development - To help students develop more complex moral reasoning patterns based on a higher set of values. To urge students to discuss the reasons for their value choices and positions, not merely to share with others, but to foster change in the states of reasoning of students.

The foremost proponent of the moral development approach encountered in the literature was Lawrence Kohlberg (1971), who prefers the term "cognitive-developmental," since the process is based on thinking and proceeds through an invariant sequence of stages. Kohlberg's theory is that each person goes through a series of stages as his moral reasoning develops; that these stages are sequential; and that each person goes through the stages in the same order, although perhaps at a different rate of speed.

The six stages as envisioned by Kohlberg (1971:86-88) are as follows:

I. Pre-conventional Level

Stage 1 - Punishment and obedience orientation
Stage 2 - Instrumental relativist orientation

II. Conventional Level

Stage 3 - Interpersonal concordance or "good boy-nice girl"
Stage 4 - Law and order orientation

III. Post-Conventional, Autonomous, or Principled Level

Stage 5 - Social-contract legalistic orientation
Stage 6 - Universal ethical-principle orientation

According to Kohlberg, this typology was based on Dewey's theoretical thinking about moral levels and Piaget's definition of moral stages and was refined and validated by Kohlberg through a longitudinal, cross-cultural study spanning 12 years. The methodology is to stimulate a student's moving to a higher stage of moral reasoning through the presentation and consideration of a series of moral dilemmas.

While support for Kohlberg's theory is found in the literature (Sullivan and Beck, 1975; Sugarman, 1972; Stewart, 1975), some questions have been asked concerning its philosophical base. In 1968, Kohlberg participated in a conference on moral education, sponsored by the Ontario Institute for Studies in Education and held in Toronto. At this conference, he presented a paper entitled "Stages of Moral Development as a Basis for Moral Education" (1971). Following his presentation, a discussion was held at which conferees shared their concerns about the theory with Kohlberg, with specific attention directed toward the invariant sequence of stages and the effects of individual differences on moral development, particularly as to the impact of differences in experiential background and previously acquired knowledge on such development. Among those persons questioning the theory were Clive W. Beck of the Ontario

Institute for Studies in Education and the University of Toronto, Michael Scriven of the University of California at Berkeley, and Jan Narveson of the University of Waterloo.

Peters (1975) asserted that Kohlberg's theory gave insufficient consideration to the affective/emotional aspect of moral education. Aronfreed (1971:375), too, concluded that "without strong affective disposition, you will never get anywhere."

Also lacking an affective component in its theoretical base was the third approach to values education--values analysis.

Values analysis - To help students use logical thinking and scientific investigation to decide values issues and questions. To help students use rational analytical proceses in internalizing their values.

Scriven (1975), a self-described "cognitivist," averred that the school's most appropriate role is to teach the student how to do moral analysis, and detailed three components of a moral curriculum:

1. Knowledge about and understanding of the facts, including arguments and positions, involved in moral issues.
2. Cognitive skills, moral reasoning, developed to the level of confidence where they can be exercised in social argumentation . . .
3. Nature, origin, and foundation of ethics.

In response to Scriven, Crittenden (1975) asserted that virtues do not emerge simply as a result of the acquisition of

knowledge about morals and the development of argumentation skills. He accepted their relationship with the cognitive factors of moral education but insisted that virtues must be intentionally and purposefully fostered, emphasizing the need for an affective component in a moral education curriculum.

The final approach identified by Weaver and Britt was values clarification, found in their study to be the most widely recommended by the state departments of education.

Values clarification - To help students become aware of and identify their own values and those of others. To help students to communicate openly and honestly with others about their values To help students use both rational thinking and emotional awareness to examine their feelings, values, and behavior patterns.

Raths (1966) saw the process of valuing as consisting of seven subprocesses:

Prizing one's beliefs and behaviors
- Prizing and cherishing
- Publicly affirming, where appropriate

Choosing one's beliefs and behaviors
- Choosing from alternatives
- Choosing after consideration of consequences
- Choosing freely

Acting on one's beliefs
- Acting
- Acting with a pattern, consistency, and repetition

Simon and others (1972:20), linking values clarification to Rath's valuing process, elaborated on the goals of the values clarification process.

> The values clarification approach does not aim to instill any particular set of values. Rather, the goal of the values clarification approach is to help students utilize the above seven processes of valuing in their own lives, to apply these valuing processes to already forged beliefs and behavior patterns and to those still emerging.
>
> To accomplish this, the teacher uses approaches which help students become aware of the beliefs and behaviors they prize and would be willing to stand up for in and out of the classroom. He uses materials and methods which encourage students to consider alternative modes of thinking and acting. Students learn to weigh the pros and cons and the consequences of various alternatives. . . . Finally, he tries to give the students options, in and out of class; for only when students begin to make their own choices and evaluate the actual consequences, do they develop their own values.

Simon and others (1972) have developed 79 strategies to be used in the classroom. Opportunities for students to consider alternatives, to make choices, and to affirm these choices are provided through these strategies. According to Simon and de Sherbinin (1975) values clarification, also rooted in the philosophical thoughts of Dewey, aims to help people become more purposeful and productive, to sharpen their critical thinking, and to improve their interpersonal relationships. Support for the affective emphasis of values clarification can be found in Dewey's Theory of Valuation (1939:65) in which, stressing the mutuality of head and heart in the valuing process, he remarked that in present social life "the split between the affectional and cognitive is probably one of the chief sources of the maladjustments and unendurable strains from which the world is suffering."

Stewart (1975) refuted a link to Dewey's thoughts and questioned research design concerning the effectivness of values clarification. He asserted that values clarification deals with content and process, ignores the structure of values, and is an oversimplification.

Raths (1967:ix), speaking of a charge of oversimplification to his theory on "thinking," which he saw as the basis of values formation, suggested:

> Isn't it true, however, that in the early stages of its publication practically every theory in all fields is oversimplified? One of the great values of formulating a theory is to bring it before the public of one's own peers for experimental verification and for theoretical examination. Trials of the theory in many different situations, conducted by different experimenters, tend to subject the theory to very critical appraisal. Under these circumstances, the theory may be modified or rejected.

While there was little argument throughout the literature about the need for moral education and the school's responsibility for providing a forum for such education, no such consensus appeared to exist on the proper way to proceed with such a program.

Research in Values Education

Current research in values education appears to be concentrated in the investigative category, resulting in comparisons and predictions concerning values of diverse groups (Gordon, 1975; Hostede, 1976; Watson and Williams, 1977; Munson and Posner, 1980; and others). Few studies were located which addressed the effect

of specific treatment variables on values or the enduring nature of such effect.

Sullivan and Beck (1975) , cautioning readers that their studies in Canadian schools, based on Kohlberg's typology, were tentative and exploratory, found that the consideration of moral dilemmas resulted in little change in students' moral development from the pretest at the beginning of the semester and the posttest at the end of the semester in which the moral dilemmas were considered. However, significantly higher levels of moral reasoning were found in the subjects who had considered moral dilemmas when they were again tested on a follow-up test a year later.

Gordon and Mensh (1962) found that medical school training can produce value rescaling from the first year to the fourth year; specifically a decrease in Benevolence and Conformity and an increase in Independence and Recognition (as defined and measured by the SIV).

Rokeach (1969:167) has concluded that for too long the concept of attitude has held a central position in the literature--both theoretically and empirically. Asserting that persons have thousands of attitudes, but perhaps only dozens of values, he proposed that, since values are determinants of attitude, values should be the focal point of future investigation and experimentation.

> A . . . way, which to the best of my knowledge has not been employed thus far, and which I hope will open the door to an experimental study of problems of education and re-education is to expose the person to information about states of inconsistency already existing within his own value-attitude system.

Rokeach found that arousing inconsistency between two values produced a values change, that the more inconsistency the greater the change, and that such change is enduring. Using a control group A and two experimental groups B and C, inconsistency was induced between the two values of equality and freedom in group B; the same procedure was followed for group C except for the addition of a dissonant relation between a value and an attitude, the attitude being identified as civil rights. At the end of three weeks and at the end of three months, control group A showed nonsignificant changes, except that at the end of three months a significant negative change of the freedom value was found. Group B showed significant gains in equality three weeks later and three months later, and significant gains in freedom three weeks later. At the end of three months, while there was an increase in freedom for group B, it was not significant. Group C showed a significant increase in both freedom and equality at the end of three weeks and at the end of three months. Rokeach (176) concluded that these "results are reasonably in line with the now widely accepted proposition that a necessary condition for change is a state of cognitive inconsistency arising from values conflict.

One of the aims of values clarification is to help students bring into closer harmony inconsistent value patterns. Simon and de Sherbinin reported success for values clarification in reducing drug usage by young people.

> Instead of focusing exclusively on drugs, [drug educators] involve young people in looking at their total lives. [Through values clarification] the young discover what they prize and cherish. They begin to think about the consequences of their actions. Eventually they learn techniques for examining the harder issues of their lives, such as whether or not to use drugs (1975:679).

The researcher's study provided a forum for values education for identified postsecondary students at Northern Montana College.

SUMMARY

The need for values education pervaded the review of literature in this chapter. Since a person's value system is of major importance as the basis for decision-making, for determining priorities, and for planning life, some provision must be made for students to have the opportunity to participate in some type of values education. Authorities in the literature, the general public, and professional educators agreed that the schools must take responsibility for providing such education.

Four major approaches for the teaching of values education were identified and described; little research has been conducted to measure the effectiveness of these approaches, since most research has focused on comparisons of diverse groups with few studies measuring the effect of treatment variables on values.

The dearth of such research provided the incentive for this study. The procedures used in the study, which attempted to further knowledge in values education, are detailed in Chapter 3.

Chapter 3

PROCEDURES

The problem of this study was fourfold: (1) to compare the effect of a conventional lecture-discussion method of instruction with the effect of a method utilizing the values clarification process on the interpersonal values of students enrolled in two sections of a Personal Development course at Northern Montana College during Spring Quarter, 1981; (2) to compare the effect of a conventional lecture-discussion method of instruction with the effect of a method utilizing the values clarification process on students' cognitive achievement in the course considered in the study; (3) to measure the relationship between any change in interpersonal values and any change in cognitive achievement; and (4) to determine the stability of those values after approximately six months.

This chapter begins with a description of the population of the study, followed by a definition of the treatments. The next section of the chapter describes the methods for collecting the data. Testing instruments are identified and their selection and construction explained. The statistical hypotheses that were tested are then delineated, followed by a discussion of the data analysis, including the precautions taken for accuracy in the collection and analysis of such data.

Population

The study was conducted at Northern Montana College, one of the six units of the Montana University System. The college, with an enrollment of approximately 1400 students, has been charged by the Board of Regents with a three-pronged responsibility: technical studies, pre-professional studies, and teacher education. As a unit of the School of Technology and Professional Studies, the Department of Business, under whose rubric the course considered in this study is offered, is authorized to award Associate of Science degrees in Business Administration and Secretarial Technology, Bachelor of Science degrees in Business Education, and Bachelor of Technology degrees in Business.

Two sections of BE 120, Personal Development, the course considered in this study, are offered each spring quarter, and the population of this study were those students enrolled in both sections of the course during Spring Quarter, 1981. Information provided by the students in response to a brief questionnaire (Appendix A), administered the day of their initial enrollment, revealed descriptive data as presented on the following pages.

Initial enrollment in Section 1 was 52; in Section 2, initial enrollment was 47.

Table 3.1
Distribution of Students
By Sex

Sex	Section 1	Section 2
Male	15	15
Female	37	32

Table 3.2
Distribution of Students
By Major

Major	Section 1	Section 2
Business	41	38
Other	11	9

Table 3.3
Distribution of Students
By Age Group

Age Group	Section 1	Section 2
18-22	43	40
23-30	4	5
31-40	5	1
41-50	0	1

Table 3.4
Distribution of Students
By Class Level

Class Level	Section 1	Section 2
Freshman	35	21
Sophomore	14	20
Junior	0	2
Senior	3	4

Table 3.5
Distribution of Students
By Years Of
Work Experience

Years of Work Experience	Section 1	Section 2
0-3	36	27
4-10	13	17
11-15	2	1
16-20	1	2

A choice labeled "Other" was included with the questionnaire items; however, no "Other" responses were submitted. An item on the questionnaire asked students to respond as to what degree they were

pursuing, with the choices labeled "Bachelor's," "Associate," and "Other (please specify)." Enough students checked "Other" and specified "Business" to make quantifying the response illogical. No information is reported concerning that item.

Because the course considered is offered under the Business rubric, the predominance of business majors in both sections was anticipated. Approximately twice as many women students were enrolled in both sections as were men students. The data reveal that the majority of the students were lower-division students, which was expected, since the course is a freshman-level course. While the majority of students in both sections fell in what is considered the "traditional" college age span of 18-22 years, it will be noted that 13 students in Section 1 and 17 students in Section 2 reported four to ten years of work experience. More precise categories in which to designate work experience would have provided more definitive information for comparative purposes.

A "typical" student in the study was found to be a female, lower-division business student, of traditional college age, with a work experience background of three years or less.

Definition of the Treatments

The course in Personal Development addresses the following topics: needs and motivation, understanding yourself and your career, human and professional relations, values, communication, problem-

solving and decision-making, and leadership. The course is offered for two credits, meets for twenty class periods, and is open to all students on campus. During Spring Quarter, 1981, two sections of the class were offered, both sections meeting on Tuesdays and Thursdays for fifty minutes each day. Section 1 met 11:00-11:50 a.m.; Section 2 met 1:10-2:00 p.m.

The study was designed to provide a different treatment to each section and to measure the results. The determination of which section received which treatment was determined by the flip of a coin. Such a "flip" was made by a colleague of the researcher and established Section 1 as the control group and Section 2 as the experimental group. In Section 1, the class was conducted using the conventional lecture-discussion method, with one class period being devoted to the concept of values and values conflicts. In Section 2, eight periods were devoted to the values clarification process using specific strategies as identified in Values Clarification (Simon et al, 1972).

Contemporary values education approaches as represented by Weaver and Britt were described previously. The objectives for the values clarification approach (1978:3) are repeated here:

> To help students become aware of and identify their own values and those of others. To help students to communicate openly and honestly with others about their values. To help students use both rational thinking and emotional awareness to examine their personal feelings, values and behavior patterns.

A topical outline of the course in Personal Development is presented on the following page(s).

I. Needs and Motivation
   A. Maslow's Hierarchy
   B. Applying Maslow's hierarchy
      1. From employee's viewpoint
      2. From management's viewpoint
   C. External and internal motivation
   D. Influence on career

II. Understanding Yourself and Your Career
   A. Drives
   B. Emotions
   C. Defense mechanisms
   D. Influence on career

III. Attitudes
   A. Formation
   B. Identification
   C. Change
   D. Influence on career

IV. Human Relations
   A. Importance
   B. Interdependence of people
   C. Morale
   D. Building and maintaining human relations
   E. Contributions to productivity
   F. Influence on career

V. Professional Relations
   A. Vertical
   B. Horizontal
   C. Influence on career

VI. Values
   A. Definition
   B. Importance
   C. Sources
   D. Conflict and compromise
   E. Influence on career

VII. Communication
   A. The process
   B. Verbal
   C. Non-verbal
   D. Influence on career

VIII. Decision-making and Problem-solving
- A. The process
- B. Thinking
  - 1. The brain
  - 2. The computer
- C. Memory
- D. Creativity

IX. Leadership
- A. Climate
- B. Styles
- C. Qualities of leaders
- D. Responsibilities of leaders
  - 1. To the company
  - 2. To the employees
  - 3. To the customers/clients
  - 4. To the government
  - 5. To society

Information regarding the preceding topics was presented for discussion to students in the control group during 17 of the 20 class periods. A total of three class periods were used for pretesting, for the midquarter examination, and for posttesting. As indicated in the Delimitations section of Chapter 1, the midquarter examination was not a part of this study. A condensed version of the same material was presented to students in the experimental group during nine class periods; testing occupied three class periods; and values clarification strategies were addressed during eight class periods. Detailed class schedules for both groups can be found in Appendix B. From a review of the schedule, it will be seen that the values clarification process was introduced to the experimental group at the first class meeting following midquarter and proceeded without interruption until the end of the quarter.

The selection of specific values clarification strategies to be used was based on Rath's three processes and seven sub-processes of valuing. The specific strategies used, identified by name and number, as each related to the processes for valuing, follow:

Process	Strategy Number	Strategy Name
Prizing one's beliefs|behaviors	19	"-ing" Tag
Prizing and cherishing	2	Values Grid
"	33	Pie of Life
Publicly affirming, where appropriate	12	Public Interview
	20	Partner Risk
Choosing one's beliefs|behaviors		
Choosing from alternatives	6	Forced-choice Ladder
Choosing after consideration of consequences	25	Brainstorming
	23	and Alternative Search
Acting on one's beliefs		
Acting	24	Alternative Action Search
Acting with a pattern, consistency, and repetition	29	Pattern Search

The purposes and procedures for each of these strategies are delineated in Values Clarification: A Handbook of Practical Strategies for Teachers and Students (Simon et al, 1972).

Control of Irrelevant and Contaminating Variables

The quasi-experimental design selected for this study was the Nonequivalent Control Group Design, as described by Campbell and Stanley (1963:47), whose explanation of the conditions typifying this design follow:

> One of the most widespread experimental designs in educational research involves an experimental group and a control group both given a pretest and a posttest, but in which the control group and the experimental group do not have pre-experimental sampling equivalence. Rather, the groups constitute actually assembled collectives such as classrooms, as similar as availability permits but yet not so similar that one can dispense with the pretest. The assignment of X [the treatment] to one group or the other is assumed to be random and under the experimenter's control.

The design for the proposed study can be diagrammed as follows:

O X O

- - - - - - - - - - - - -

O O

O represents the dependent variables (pretest-posttest) and X represents the independent variable applied at two levels--values clarificaton for Section 2 and no values clarification for Section 1. Non-randomization is indicated by the broken line.

Campbell and Stanley advised that if a similarity in recruitment is approximated and this similarity is confirmed by the pretests, the Nonequivalent Control Group Design can be considered appropriate for controlling the main effects of history, maturation, testing, and instrumentation. Enrollment in the course was open to any student who had not previously taken the class. No information was provided students that the sections were to be taught differently. The course was listed on the spring quarter schedule with all information identical, except for section number and time of day. Individual choice and schedule constraints directed the student's selection of a section.

Business Department faculty have observed that classes offered late in the morning or early in the afternoon appear to suffer fewer conflicts with students holding part-time jobs or participating in a cooperative education experience. There is no reason to believe that the two hours these sections were offered--11:00 a.m. and 1:10 p.m.--differed so far as availability to students was concerned.

While explaining that, if the above conditions are met, the design selected for this study does control for the main effects, Campbell and Stanley did indicate some possible sources for concern. Considered to be a weakness of the design as it concerns internal validity is the possible interaction between selections (of subjects) with any one of the other factors, although the authors suggest that

such interaction is unlikely. In this study, there was no reason to believe, given the similarity of conditions except for the independent variable, that such interaction occurred to jeopardize internal validity.

Again addressing internal validity, Campbell and Stanley viewed the lack of control of the regression factor as a possible source of concern in this design. They indicated, however, that this is a concern only if either of the comparison groups had been selected for its extreme scores on a premeasure, which was not the case in this study.

Sources of external validity are the possible interaction between the testing and the treatment and the selection of the subjects and the treatment. Viewing testing as a normal occurrence in a classroom situation, the authors indicated little interference from interaction between testing and treatment. They did suggest that in contemplating interaction between the selection of subjects and the treatment, one may be able to generalize only to students selected in the same manner.

A source of possible concern which might have jeopardized external validity was referred to by Campbell and Stanley (1963:20) as "reactive arrangements--artificiality of the experimental setting and the student's knowledge that he is participating in an experiment."

Intact classes and traditional testing procedures were used. While students registered in separate sections may have discussed a

particular session, at no time was a question directed toward the researcher concerning the fact that one section was doing something different from the other section on a particular day, or that there was any difference between the sections. There is no reason to believe the students were aware that they were involved in an experiment.

Method of Collecting Data

Measurement was based on two instruments--the Survey of Interpersonal Values (SIV) and an instrument constructed for the study to measure cognitive achievement in the topics of the course outline. Students were pretested on both instruments at the beginning of the quarter to determine group equivalence and posttested at the end of the quarter to measure changes in values and changes in cognitive achievement. To measure the stability of values change, the SIV was again administered approximately six months later (November, 1981) to those participants in the study who had returned to Northern Montana College for Autumn Quarter, 1981. (Control Group - N = 22; Experimental Group - N = 26.)

At the time of the pretests, students were asked to submit descriptive information on a form supplied for the purpose (Appendix A). The instructions covering an instrument were read to the students by the researcher each time an instrument was administered. The researcher explained to students at the time of the pretests that the information provided would assist the teacher in appropriately

structuring the course. A code number to assure confidentiality was assigned to each student. The code number was placed on both instruments and the survey form for descriptive information at the time of the pretest, on both instruments at the time of the posttest, and on the SIV follow-up test. At the time of the posttests, the researcher informed students of interest in having structured the course properly. Students to whom the follow-up test was administered were told of the researcher's interest in change over the summer. In the experimental group 26 students (60% of those students taking the posttest) returned to campus; in the control group, 22 students (45%) returned. At no time was a reference made to the existence of experimental conditions.

The Affective Instrument

The reviewers of the Survey of Interpersonal Values (SIV) in The Eighth Mental Measurement Yearbook indicated that the reliabilities range from .71 to .86 with a mean of .815, that the items have good face validity, and that it has "considerable potential for use in vocational and personal counseling situations, and in research in change and values" (Buros, 1976:1107).

Following is a description of the instrument, as drawn from the accompanying manual (Gordon, 1976:1).

> People's values may be instrumental in determining what they do or how well they perform. Their immediate decisions, as well as their long-range plans, are influenced, consciously or unconsciously, by their value systems.

> The Survey of Interpersonal Values (SIV) is designed to measure certain salient values involving the individual's relationship with other people. These particular values are important in the individual's personal, social, marital, and occupational adjustment. The six values measured are Support, Conformity, Recognition, Independence, Benevolence, and Leadership . . . Factor analysis was employed in the original development of the scale. High school, college, industrial, and other adult samples were used throughout the development of the SIV. The item content was found to be meaningful for each of these groups; the scales were found to have discriminating power within each of these groups.
>
> Forced choice format is employed in the SIV. The instrument consists of thirty sets of three statements, or triads. For each triad, the respondent indicates one statement as representing what is most important and one statement as representing what is least important to himself or herself. Within each triad, three different value dimensions are represented. The three statements within each set were equated as far as possible for social desirability through a matching on preference value indices. In this way, the likelihood of an individual's responding to the favorableness of the statement rather than to its degree of importance to that person is reduced. The forced-choice method employed is believed to be less susceptible to willful distortion under conditions of operational administration than the traditional questionnaire approach.

The following are definitions of the scales as reflected by their item content:

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

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

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

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

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

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

The definitions of the six scales of the instrument reflect the values conflict--corporate versus personal--as viewed by Peterson and Park and referred to in Chapter 1 of this study.

The Cognitive Instrument

In order to determine the effect of the method of instruction on achievement in the cognitive domain in those topics in the course outline, an instrument was developed to measure such cognitive learning (Appendix C). The content validity of the instrument was established by the construction process. Tinkelman (1971) suggested that in defining the scope and emphasis of a test, the following questions should be considered: (1) On what topics should the questions be asked? (2) What types of behavior should the examinee be required to demonstrate? (3) What is relatively important or unimportant?

The researcher addressed these questions in the following manner. The topical outline for the course was derived from Personal Psychology for Life and Work (Baltus, 1976), and the content includes topics consistent with those listed in tables of contents of similar publications. Faculty members in the Business Department at Northern Montana College were consulted to determine the appropriateness of the topics for the course considered.

According to Tinkelman, one method for defining what types of behavior the examinees should be required to demonstrate is to classify these behavioral objectives in accordance with Bloom's Taxonomy of Educational Objectives (1956). Tinkelman then recommended a two-way chart relating the content classification to the behavioral classification, with the various cells "weighted" in light of their relative importance. Such a chart was constructed and may be seen in Appendix D. Only the knowledge, comprehension, and application components of Bloom's taxonomy were used as behavioral objectives in this instrument. Test items were constructed by the researcher in accordance with the relative importance of the behavioral classification and the content classification, which focused on the learner outcomes developed for the course (Appendix E). Attention was given to Wesman's suggestions for the writing of "good" test items (1971). The test items were reviewed by a panel of six judges selected for their subject matter expertise and their knowledge of educational measurement, to determine item appropriateness as related to the content of the course and the behavioral objective each item represented. Items not meeting the specified criteria were re-written, or new items were constructed. The completed test was then reviewed by the judges to determine that is was "appropriate, fair, and representative" Tinkelman, 1971:50).

The number of items included in the test were consistent with the time allotted for the test. Speed of completion of the test was

not measured. All students were able to complete the instrument in the time allotted.

Reliability of the instrument was established with the test-retest technique using fourteen Northern Montana College students not enrolled in the course. The reliability correlation coefficient was .804.

Statistical Hypotheses Tested

The following statistical hypotheses were tested in this study:

1. Ho: There is no significant difference in the precourse variances of the experimental and control groups, as measured by the cognitive instrument constructed for the study.

2. Ho: There is no significant difference in the precourse mean performance of the experimental and control groups, as measured by the cognitive instrument constructed for the study.

3. Ho: Variances of precourse SUPPORT scores of the experimental and control groups are not significantly different.

4. Ho: Variances of precourse CONFORMITY scores of the experimental and control groups are not significantly different.

5. Ho: Variances of precourse RECOGNITION scores of the experimental and control groups are not significantly different.

6. Ho: Variances of precourse INDEPENDENCE scores of the experimental and control groups are not significantly different.

7. Ho: Variances of precourse BENEVOLENCE scores of the experimental and control groups are not significantly different.

8. Ho: Variances of precourse LEADERSHIP scores of the experimental and control groups are not significantly different.

9. Ho: Means of precourse SUPPORT scores of the experimental and control groups are not significantly different.

10. Ho: Means of precourse CONFORMITY scores of the experimental and control groups are not significantly different.

11. Ho: Means of precourse RECOGNITION scores of the experimental and control groups are not significantly different.

12. Ho: Means of precourse INDEPENDENCE scores of the experimental and control groups are not significantly different.

13. Ho: Means of precourse BENEVOLENCE scores of the experimental and control groups are not significantly different.

14. Ho: Means of precourse LEADERSHIP scores of the experimental and control groups are not significantly different.

15. Ho: There is no signficant difference in the postcourse mean performance of the experimental and control groups, as measured by the cognitive instrument designed for the study, when initial differences between the two groups have been adjusted with respect to initial cognitive knowledge in the course considered.

16. Ho: Postcourse SUPPORT scores of the experimental and control groups are not significantly different, when initial differences between the two groups have been adjusted with respect to initial SUPPORT scores.

17. Ho: Postcourse CONFORMITY scores of the experimental and control groups are not significantly different when initial differences between the two groups have been adjusted with respect to initial CONFORMITY scores.

18. Ho: Postcourse RECOGNITION scores of the experimental and control groups are not significantly different when initial differences between the two groups have been adjusted with respect to initial RECOGNITION scores.

19. Ho: Postcourse INDEPENDENCE scores of the experimental and control groups are not significantly different when initial differences between the two groups have been adjusted with respect to initial INDEPENDENCE scores.

20. Ho: Postcourse BENEVOLENCE scores of the experimental and control groups are not significantly different when initial differences between the two groups have been adjusted with respect to initial BENEVOLENCE scores.

21. Ho: Postcourse LEADERSHIP scores of the experimental and control groups are not significantly different when initial differences between the two groups have been adjusted with respect to initial LEADERSHIP scores.

22. Ho: There is no significant relationship between change in SUPPORT scores and change in cognitive achievement in the course considered.

23. Ho: There is no significant relationship between change in CONFORMITY scores and change in cognitive achievement in the course considered.

24. Ho: There is no significant relationship between change in RECOGNITION scores and change in cognitive achievement in the course considered.

25. Ho: There is no significant relationship between change in INDEPENDENCE scores and change in cognitive achievement in the course considered.

26. Ho: There is no significant relationship between change in BENEVOLENCE scores and change in cognitive achievement in the course considered.

27. Ho: There is no significant relationship between change in LEADERSHIP scores and change in cognitive achievement in the course considered.

28. Ho: There is no significant change from posttest SUPPORT scores to follow-up SUPPORT scores for the experimental group.

29. Ho: There is no significant change from posttest CONFORMITY scores to follow-up CONFORMITY scores for the experimental group.

30. Ho: There is no significant change from posttest RECOGNITION scores to follow-up RECOGNITION scores for the experimental group.

31. Ho: There is no significant change from posttest INDEPENDENCE scores to follow-up INDEPENDENCE scores for the experimental group.

32. Ho: There is no significant change from posttest BENEVOLENCE scores to follow-up BENEVOLENCE scores for the experimental group.

33. Ho: There is no significant change from posttest LEADERSHIP scores to follow-up LEADERSHIP scores for the experimental group.

34. Ho: There is no significant change from posttest SUPPORT scores to follow-up SUPPORT scores for the control group.

35. Ho: There is no significant change from posttest CONFORMITY scores to follow-up CONFORMITY scores for the control group.

36. Ho: There is no significant change from posttest RECOGNITION scores to follow-up RECOGNITION scores for the control group.

37. Ho: There is no significant change from posttest INDEPENDENCE scores to follow-up INDEPENDENCE scores for the control group.

38. Ho: There is no significant change from posttest BENEVOLENCE scores to follow-up BENEVOLENCE scores for the control group.

39. Ho: There is no significant change from posttest LEADERSHIP scores to follow-up LEADERSHIP scores for the control group.

Method of Analyzing Data

Initial group equivalence on the pretests (Hypotheses 1-14) was analyzed using an independent t-test to test the significance of the difference between means, following an F-test to determine the homogeneity of the variances (Ferguson, 1976:164-177).

Hypotheses 15-21 were analyzed using analyses of covariance with the pretests as covariates. Kerlinger (1964:347) defined analysis of covariance as a "form of analysis of variance that tests the significance of the difference between means of final experimental data by taking into account and adjusting initial differences in the data." Ware and McLean (1978:18), however, attributed to analysis of covariance two major functions:

1. A correction for initial differences among groups by adjusting scores of the dependent variable for some concomitant variable(s).

2. An increase in the precision of an experiment through reduction of unexplained cell variation.

Ware and McLean asserted that "the function of increased precision has been lost or at least confused with the function of adjustment for pretest differences." Campbell and Stanley (1963:23) suggested that "since the great bulk of educational experiments show no significant difference and hence are more frequently not reported, the use of this more precise analysis would seem highly desirable."

Hypotheses 22-27 were analyzed using the Pearson product-moment correlation coefficient (Ferguson, 1976:102). Hypotheses 28-39 were

analyzed using a t-test for correlated data (Ferguson, 1976:166). Since the researcher could accept a 5 percent probability of making a Type I error, the .05 level of significance was used.

Precautions Taken for Accuracy

Each instrument was scrutinized as it was submitted and re-checked later for errors or omissions. Test scores were checked twice by the researcher and once by an independent agent, using a desk calculator with tape to insure accuracy in arithmetical computations. The researcher then placed the data on coding forms. The coding forms were checked by the researcher, by another individual, and, finally, by a third individual. Under the supervision of Dr. Joseph Callahan, Dean of Continuing Education and Assistant to the Vice President for Academic Affairs at Northern Montana College, the data on the coding forms were transferred to keypunch cards in the Computer Services Center at Northern Montana College. The Statistical Package for Social Studies (Nie et al, 1975) was used to analyze data with the University of Montana's DECSYSTEM, under Dr. Callahan's supervision.

SUMMARY

The subjects of the study were those students enrolled in two sections of a course in Personal Development at Northern Montana College during Spring Quarter, 1981. Students were pretested on both an affective and a cognitive instrument at the beginning of the

quarter. A different treatment was provided each group, with the results being measured by posttests on the same instruments at the end of the quarter. Approximately six months later, the affective instrument (SIV) was again administered to those participants in the study who had returned to campus for Autumn Quarter, 1981. The analysis of the data thus collected is described in Chapter 4.

Chapter 4

RESULTS AND FINDINGS

This study produced data concerning interpersonal values and cognitive achievement in two sections of a Personal Development course at Northern Montana College. This chapter begins with a discussion of the population of the study and concludes with the results from the testing of the statistical hypotheses.

Population

The population for the study was students enrolled in two sections of a Personal Development course at Northern Montana College during Spring Quarter, 1981. A flip of coin at the beginning of the study established Section One as the control group and Section Two as the experimental group. The experimental group with an initial enrollment of 47 participated in the values clarification process. The method of instruction for the control group with an initial enrollment of 52 was the conventional lecture-discussion approach. During the quarter, two students from each section withdrew. In the experimental group, two pretests on the SIV were improperly completed and found to be unusable, as was one posttest on the SIV in the control group. Follow-up tests were given to those participants in the study who returned to the campus Autumn Quarter, 1981. The number of students actually completing each instrument are given in each table displaying the data collected from that instrument.

Statistical Hypotheses

Initial group equivalence on the pretests was analyzed using an F-test for homogeneity of the variances, followed by independent t-tests to compare the means of the experimental and control groups (Hypotheses 1-14).

Analyses of covariance with the pretests as covariates were used to test the significance between the means of the two groups on the posttests (Hypotheses 15-21). Relationships between a change in cognitive achievement and a change in interpersonal values (Hypotheses 22-27) were analyzed using the Pearson product-moment correlation coefficient. Data concerning the stability of values when measured six months after the conclusion of the course considered in the study were analyzed using the t-test for correlated data. Data from both the experimental group (Hypotheses 28-33) and the control group (Hypotheses 34-39) were analyzed.

The level of significance chosen for all statistical tests was .05.

Null Hypotheses 1 and 2 pertain to group equivalence on the cognitive pretest scores. These hypotheses tested the homogeneity of the variances and the difference between the means of the two groups. A comparison of the cognitive pretest means and the resulting F- and t- values are shown in Table 4.1.

Table 4.1

A Comparison of Cognitive Pretest Scores

Group	N	Mean	SD	Variance	F	t
Experimental	47	62.25	9.60	92.16	1.29	-.58
Control	52	63.46	10.92	119.25		

To examine the data to determine whether the variances of the two groups were equal, an F-ratio for variance homogeneity was computed. With 51 degrees of freedom for the greater variance and 46 degrees of freedom for the lesser, the exact two-tailed probability for the F-value was insufficient to reject the hypothesis of variance homogeneity at the .05 level.

Upon establishing the homogeneity of the variances of the two groups, an appropriate model for the independent t-test to compare the means was selected. Popham (1967:141) has recommended the pooled variance formula as the model to be used when analysis of the data reveals equal variances and unequal numbers of subjects. Such a model was employed. The calculated value of t with 95 degrees of freedom on the cognitive pretest was -.58. Since the exact two-tailed probability of the t- value was insufficient to reject the hypothesis of no difference between the means of the two groups, Null Hypothesis 2 was retained.

Null Hypotheses 3-14 pertain to initial group equivalence on the six scales of the SIV. Data concerning these hypotheses are presented in Table 4.2.

Table 4.2

A Comparison of SIV Pretest Scores

Value and Group	N	Mean	SD	Variance	F	t
SUPPORT						
Experimental	45	18.51	5.01	25.55	1.28	-.47
Control	52	18.96	4.43	19.62		
CONFORMITY						
Experimental	45	13.87	4.58	20.98	1.44	-.31
Control	52	14.19	5.48	30.03		
RECOGNITION						
Experimental	45	9.84	5.04	25.40	1.27	-1.02
Control	52	10.83	4.47	19.98		
INDEPENDENCE						
Experimental	45	17.82	5.76	33.18	1.01	.09
Control	52	17.71	5.72	32.72		
BENEVOLENCE						
Experimental	45	18.07	5.41	29.27	1.26	.43
Control	52	17.61	4.83	23.33		
LEADERSHIP						
Experimental	45	11.89	6.55	42.90	1.17	.93
Control	52	10.69	6.05	36.60		

These hypotheses (3-14) tested the homogeneity of the variances and compared the means of the experimental and control groups on each scale. F-ratios were computed establishing the homogeneity of the variances of the two groups on each scale. Since the exact two-tailed probabilities for each F-value were greater than .05 on each scale of the SIV, the null hypotheses of homogeneity of variances were retained. Also displayed in Table 4.2 are the results of a comparison of the means of the two groups on each of the six scales of the SIV.

The pooled variance formula was again used as the model for the independent t-test to test the significance of the difference between the means of the two groups on each scale of the SIV. The calculated values of t are shown in the table. Since no calculated t-value exceeded the critical value ($t_{(95)} > 2.02$), required to reject the null hypotheses of no difference, these hypotheses were also retained. Initial group equivalence, an imperative of the Non-equivalent Control Group design of this study, was established by the retention of Null Hypotheses 1-14.

Null Hypothesis 15 tested the difference in the postcourse mean performance of the experimental and control groups, as measured by the cognitive instrument constructed for the study, when initial differences between the two groups had been adjusted with respect to initial cognitive knowledge in the course considered. Posttest means of both groups are presented in Table 4.3.

Table 4.3

Cognitive Posttest Means

Group	N	Mean	SD
Experimental	45	75.29	10.08
Control	50	76.64	11.08

Since no significant difference was found between the two groups in cognitive knowledge, as measured by the pretest, it was not necessary to statistically equate the groups. However, to increase the precision of the findings on the posttest through reduction of unexplained cell variation, an analysis of covariance was performed. The results of this analysis are shown in Table 4.4.

Table 4.4

Analysis of Covariance of Cognitive Posttest Scores For Experimental and Control Groups

Source of Variation	Degrees of Freedom	Adjusted Sum of Squares	Mean Square	F
Between	1	14.697	14.697	.266
Within	92	5084.090	55.26	
Total	93	5098.787		

The results of the analysis revealed no significant differences between the groups. Null Hypothesis 15 was retained. Null Hypotheses 16-21 tested the postcourse mean performance of both groups on the six scales of the SIV, after adjusting for initial differences. Posttest means of both groups are presented in Table 4.5.

Table 4.5

SIV Posttest Means

Scale	Group	N	Mean	SD
SUPPORT	Experimental	43	18.60	6.04
	Control	49	19.26	5.22
CONFORMITY	Experimental	43	13.09	5.81
	Control	49	11.69	6.06
RECOGNITION	Experimental	43	9.67	5.00
	Control	49	12.00	4.94
INDEPENDENCE	Experimental	43	18.32	6.74
	Control	49	18.59	7.60
BENEVOLENCE	Experimental	43	17.74	6.95
	Control	49	16.18	6.59
LEADERSHIP	Experimental	43	12.79	7.84
	Control	49	12.26	7.69

Analyses of covariance, with the pretests as covariates, were performed on the scores of the six scales of the SIV. As defined by Gordon (1976:1), the SIV is designed to measure what an individual considers to be important "within one segment of the value domain." The results of these analyses showed no significant differences between the groups in the interpersonal values of SUPPORT, INDEPENDENCE, BENEVOLENCE, and LEADERSHIP. Null Hypotheses 16, 19, 20, and 21 were retained. On the CONFORMITY scale, a significant difference was found between the mean of the experimental group (13.09) and the mean of the control group (11.69). On the RECOGNITION scale, a significant difference was found between the mean of the control group (12.00) and that of the experimental group (9.67). CONFORMITY was defined as "doing what is socially correct, following regulations closely, doing what is expected and proper, being a conformist." The results of the analysis of covariance provided evidence that at the conclusion of the quarter, students in the experimental group considered the value CONFORMITY to be more important than did students in the control group. RECOGNITION is defined as "being looked up to and admired, being considered important, attracting favorable notice, achieving recognition." The results of the analysis of covariance provided evidence that at the conclusion of the quarter, students in the lecture-discussion group considered this value dimension as being more important than did those students who had participated in the values clarification process. Null Hypotheses 17 and 18 were rejected. A possible explanation for

this result may be that because the individual topics in the Personal Development course were addressed in more depth due to the schedule reported in Chapter 3, students discerned the importance of recognition as a viable component for upward mobility in the business world.

It might be argued that the opportunity for values dialogue inherent in the values clarification process directed students' attention to the interdependence of people and the necessity for accepting performance standards in the business community. Such a position would be consistent with the reference made in Chapter 1 to Kur and Clement's statement on the importance of students' "hearing from others whose values diverge from their own and in finding the common ground which provides the basis for that joint action" (1981:32). The results of the analysis of covariance for each of the scales are shown in Tables 4.6 through 4.11.

Table 4.6

Analysis of Covariance of SUPPORT Scores of Experimental and Control Groups

Source of Variation	Degrees of Freedom	Adjusted Sum of Squares	Mean Square	F
Between	1	3.328	3.328	.198
Within	89	1494.416	16.791	
Total	90	1497.744		

Table 4.7

Analysis of Covariance of CONFORMITY Scores of Experimental and Control Groups

Source of Variation	Degrees of Freedom	Adjusted Sum of Squares	Mean Square	F
Between	1	70.309	70.309	4.52 *
Within	89	1383.868	15.549	
Total	90	1454.177		

*significant at or beyond the .05 level.

Table 4.8

Analysis of Covariance of RECOGNITION Scores of Experimental and Control Groups

Source of Variation	Degrees of Freedom	Adjusted Sum of Squares	Mean Square	F
Between	1	79.440	79.440	6.01 *
Within	89	1161.606	13.200	
Total	90	1241.046		

*significant at or beyond the .05 level.

Table 4.9

Analysis of Covariance of INDEPENDENCE Scores of Experimental and Control Groups

Source of Variation	Degrees of Freedom	Adjusted Sum of Squares	Mean Square	F
Between	1	1.419	1.419	.054
Within	89	2337.694	26.266	
Total	90	2339.113		

Table 4.10

Analysis of Covariance of BENEVOLENCE Scores of Experimental and Control Groups

Source of Variation	Degrees of Freedom	Adjusted Sum of Squares	Mean Square	F
Between	1	34.423	34.423	1.767
Within	89	1733.911	19.482	
Total	90	1768.334		

Table 4.11

Analysis of Covariance of LEADERSHIP Scores of Experimental and Control Groups

Source of Variation	Degrees of Freedom	Adjusted Sum of Squares	Mean Square	F
Between	1	7.535	7.535	.257
Within	89	2609.655	29.322	
Total	90	2617.190		

Hypotheses 22-27 tested the relationship between change in cognitive achievement in the course considered in the study with change in the students' perception of the importance of each of the six value dimensions of the SIV. The statistical tool employed for each group was the Pearson product-moment correlation coefficient. The results of the analyses are presented in Table 4.12. Changes were calculated as posttest scores minus pretest scores for each student in each section.

No significant relationship between change in cognitive achievement and change in a particular value was found in the experimental group. Changes in students' scores on the six scales of the SIV appeared to be unrelated to change in cognitive learning which occurred during the quarter. For the control group, no significant relationship

was found between change in cognitive achievement and change in the value dimensions of SUPPORT, RECOGNITION, INDEPENDENCE, BENEVOLENCE, and LEADERSHIP. Changes in these five scales of the SIV appeared to be unrelated to cognitive learning which occurred during the quarter. A significant positive relationship (.369) was found between a change in cognitive achievement and change in the value of CONFORMITY, indicating that for students who had participated in the lecture-discussion method of instruction, the learning which occurred during the quarter and the students' perception of the importance of the CONFORMITY value were related. The analysis of the data requires the researcher to reject Null Hypothesis 23 and to retain Null Hypotheses 22, 24, 25, 26, and 27.

Table 4.12

Correlations Between Score Changes

Relationship	Experimental Group Coefficient N = 43	Control Group Coefficient N = 49
Cognitive versus Support	-.088	-.001
Cognitive versus Conformity	.039	.369 *
Cognitive versus Recognition	.062	-.026
Cognitive versus Independence	-.116	-.230
Cognitive versus Benevolence	.031	.096
Cognitive versus Leadership	.073	-.113

*significant at or beyond the .05 level.

Gordon (1976:10) has investigated the relationship between the SIV and various cognitive measures and has concluded that "aside from a few negative relationships with CONFORMITY, the SIV scales are largely unrelated to these measures in the cognitive domain." The cognitive instruments used by Gordon to measure these relationships were those testing intellectual ability. The finding of a positive correlation in this study may have been the result of the inherently affective nature of the topics measured by the cognitive instrument designed for the study.

Hypotheses 28-33 tested the stability of values of the experimental group comparing posttest scores on the six scales of the SIV with follow-up scores on the same instrument administered six months later (November, 1981) to those students returning to campus for Autumn Quarter, 1981. From the experimental group who had participated in the values clarification process, 26 students (60 percent) returned. Scores on the follow-up test administered to those 26 students who returned were compared with the scores on the posttest for the same students. These data were analyzed using *t*-tests for correlated samples. The results of the analysis of the data for the experimental group are presented in Table 4.13. For 25 degrees of freedom, a calculated value equal to or exceeding 2.06 is required. As can be seen in the table, for the experimental group there was no significant difference between the means on the posttest and the means on the follow-up test administered six months later, indicating relative

stability of values over a six-month period for those students who had participated in the values clarification process. Null Hypotheses 28-33 were retained.

Hypotheses 34-39 tested the stability of values of the 22 students (45 percent) who returned to campus for Autumn Quarter. Scores on the follow-up test for those 22 students who returned were compared with scores on the posttest for those same students. The data were analyzed in the same manner as were those for the experimental group. The results of these analyses are displayed in Table 4.14. As illustrated, a significant change in the importance of the interpersonal value of CONFORMITY was found. Students who had participated in the lecture-discussion method of instruction placed less importance on CONFORMITY at the conclusion of the course than they placed on that value six months later. The mean for this group on the posttest was 11.69; for the follow-up test, the mean was 13.68. At the .05 level, with 21 degrees of freedom, a value of t equal to or exceeding 2.08 is required to indicate significant change. The analysis revealed a t-value of -2.95. Null Hypothesis 35 was not tenable and was rejected. No significant change was found in the values of SUPPORT, RECOGNITION, INDEPENDENCE, BENEVOLENCE, or LEADERSHIP, indicating relative stability of those values for students participating in the lecture-discussion method of instruction. Null Hypotheses 34, 36, 37, 38, and 39 were retained.

Table 4.13

A Comparison of Posttest Scores With Follow-up Scores for the Experimental Group

N = 26

Value	Posttest Mean	SD	Follow-up Mean	SD	MD	SD	t
SUPPORT	19.46	6.26	17.92	6.86	1.54	3.90	2.01
CONFORMITY	12.96	6.23	13.08	6.05	-.115	3.93	-.15
RECOGNITION	10.23	5.06	10.19	4.72	.04	3.33	.06
INDEPENDENCE	17.35	7.48	17.15	7.80	.19	4.89	.20
BENEVOLENCE	18.12	6.17	18.40	5.58	-.28	4.66	-.30
LEADERSHIP	12.38	8.21	13.96	7.45	-1.58	4.66	-1.73

Table 4.14

A Comparison of Posttest Scores With Follow-up Scores for the Control Group

N = 22

Value	Posttest Mean	SD	Follow-up Mean	SD	MD	SD	t
SUPPORT	20.18	5.37	20.18	5.55	.00	3.05	.00
CONFORMITY	11.69	5.44	13.68	5.12	-2.09	3.32	-2.95*
RECOGNITION	12.04	5.07	11.41	4.91	.64	4.27	.70
INDEPENDENCE	17.91	8.02	17.59	7.20	.32	4.24	.35
BENEVOLENCE	17.27	5.99	17.04	4.74	.23	4.78	.22
LEADERSHIP	11.00	8.75	10.09	7.85	.91	3.80	1.12

*significant at or beyond the .05 level.

There was a high degree of consistency between posttest and follow-up scores for students in both groups. Either the instrument was not sensitive enough to detect a change over the six-month period or student values were relatively stable. Information concerning student activity over the summer months may have provided some insight as to why students in the control group considered CONFORMITY to be more important when these students were tested after summer break.

SUMMARY

Upon establishing initial group equivalence of the experimental and control groups, data were analyzed to test the null hypotheses of the study. An analysis of covariance revealed no significant difference between the two groups on the posttest scores measuring cognitive achievement in the course considered for the study. Analyses of covariance were then performed on the posttest scores on each of the six scales of the SIV. No significant differences were found between the two groups in SUPPORT, INDEPENDENCE, BENEVOLENCE, and LEADERSHIP. In the value dimension of CONFORMITY, a significant difference was found, with the mean of the experimental group exceeding that of the control group. A significant difference between the groups was also found on the RECOGNITION scale, with the mean of the control group exceeding that of the experimental group.

The relationship between change in cognitive achievement and change in each of the scales of the SIV was then explored. The only

significant relationship found was in the control group--a positive correlation between change in cognitive achievement and change in the interpersonal dimension of CONFORMITY.

Comparisons of the values considered important by students in each group at the conclusion of the course and those considered important after the expiration of a six-month period were then made. Over this length of time, relative stability in the values of students in the experimental group was indicated, with no significant differences found between the posttest means and the follow-up means on the six scales of the SIV. In the control group, a significant difference was found between the posttest means and the follow-up means in the interpersonal value of CONFORMITY, with its importance, as perceived by students in the group, appearing to increase over the six-month period. Relative stability appeared to exist in the other five value dimensions, with no significant differences found.

Possible interpretations of the results of the analyses of these data will be discussed in Chapter 5.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter summarizes the study "The Effect of a Values Clarification Process on Students at Northern Montana College." Conclusions drawn from the data analysis are then presented, recommendations are made, and implications of the study are discussed.

Summary

The problem of the study was fourfold: (1) To compare the effect of a conventional lecture-discussion method of instruction with the effect of a method utilizing the values clarification process on the interpersonal values of students enrolled in two sections of a Personal Development course at Northern Montana College during Spring Quarter, 1981; (2) to compare the effect of a conventional lecture-discussion method of instruction with the effect of a method utilizing the values clarification process on students' cognitive achievement in the course considered in the study; (3) to measure the relationship between change in interpersonal values and change in cognitive achievement; and (4) to determine the stability of those values after approximately six months.

Literature pertaining to the study was reviewed in Chapter 2. This review addressed four major topics relating to values education: (1) The need for values education; (2) the schools' responsibility for providing the framework for values dialogue; (3) recent

trends in values education; and (4) current research in the field of values education.

The Constitution of the United States, political doctrine, technological advances, and the philosophies of educators combined to contribute to the neglect of values as a dimension of the schools' curricula. The importance of an individual's value system in the conduct of his personal and professional affairs was emphasized particularly as those values relate to the decision-making necessary in the escalating conflict between corporate values and personal values. The general public and professional educators agreed that values education is a necessary component of a school's curriculum.

In the schools in the nation which are addressing values education, four major approaches were identified, the most widely recommended being values clarification, an approach which encompasses awareness and identification of values of self and others, communication, rational thinking, and emotional awareness.

Current research has focused primarily on investigative studies of value held by diverse groups, with little attention having been devoted to measuring the effect of particular treatment variables on values. The recognized paucity of such research provided the impetus for this study.

Chapter 3 discussed the procedures that were followed in implementing the study. Descriptive information concerning the

participants in the study was presented. A definition of the treatments described the values clarification process as in independent variable for the experimental group, reported the conventional lecture-discussion method of instruction for the control group, and outlined the time frame for each group. A discussion of the methods used in collecting the data for the study included a description of the affective instrument selected and the cognitive instrument constructed for the study. The affective instrument used was Gordon's (1976) Survey of Interpersonal Values (SIV); the cognitive instrument was constructed by the researcher in consultation with persons knowledgeable in the subject area and in educational measurement. Students were tested on both instruments at the beginning of the quarter. For the experimental group, N = 45; for the control group, N = 52. Students were again tested on both instruments at the conclusion of the quarter. For the experimental group, N = 43; for the control group, N = 49. Approximately six months later, subjects of the study who returned to Northern Montana College for Autumn Quarter, 1981, were again tested on the SIV. 26 students from the experimental group returned, and 22 students from the control group returned. Statistical hypotheses were tested with appropriate statistical tools to compare the two groups and to measure relationships.

The analysis of the data were presented in Chapter 4. Initial group equivalence was establshed by the pretests on both the affective

and cognitive instruments. The cognitive posttests revealed no significant difference between the two groups in cognitive achievement in the subject matter of the Personal Development course.

As measured by the SIV posttest, students in the control group considered RECOGNITION to be more important than did students in the experimental group, while students in the experimental group considered the value of CONFORMITY to be more important than did students in the control group. There were no significant differences in the importance the two groups accorded the remaining values of SUPPORT, INDEPENDENCE, BENEVOLENCE, and LEADERSHIP.

An investigation of the relationship between change in cognitive achievement and change in one of the six value dimensions of the SIV resulted in only one significant relationship. In the control group, the analysis disclosed a positive correlation between change in cognitive achievement and change in the CONFORMITY value. Relative stability of values over a six-month period was indicated for those students who had participated in the values clarification process; however, for those students who had participated in the lecture-discussion method of instruction, while relative stability appeared to exist in five of the interpersonal values--SUPPORT, RECOGNITION, INDEPENDENCE, BENEVOLENCE, and LEADERSHIP--the students' perception of the importance of the CONFORMITY value increased.

Conclusions

The researcher has reached the following conclusions from the analysis of the data of this study:

1. Cognitive achievement was independent of the method of instruction in the Personal Development course at Northern Montana College during Spring Quarter, 1981.

2. The method of instruction did not affect students' interpersonal values of SUPPORT, INDEPENDENCE, BENEVOLENCE, and LEADERSHIP. The method of instruction did affect students' interpersonal values of CONFORMITY and RECOGNITION. At the conclusion of the course, students participating in the values clarification process perceived the value of CONFORMITY to be of more importance than did students participating in the traditional lecture-discussion method of instruction. At the same time, students in the lecture-discussion group perceived the value of RECOGNITION to be of more importance than did the other group. While the results of the data analysis concerning the effect of the method of instruction revealed significant findings in two of the scales of the SIV, the researcher concluded that a basic change in values did not result from either the values clarification process or the traditional lecture-discussion method used in teaching the Personal Development course. Although not a part of the statistical analysis, a review of the data revealed that each time the SIV was administered to either group, three values had consistently higher means than did the other three values. While the order within each

of the two clusters may have fluctuated, the means of both groups were consistently higher for the values of SUPPORT, BENEVOLENCE, and INDEPENDENCE than for CONFORMITY, RECOGNITION, and LEADERSHIP. Therefore, even with the significant findings in CONFORMITY and RECOGNITION, the basic value structure of corporate versus personal values were not altered for either group.

3. In the experimental group, there was no evidence of a relationship between change in cognitive achievement and change in any of the six interpersonal values. The researcher concluded that for the experimental group change in cognitive achievement was unrelated to change in any of the six scales of the SIV. In the control group, there was no evidence of a relationship except for a positive correlation of cognitive achievement with the interpersonal value of CONFORMITY. The researcher concluded that for the control group the learning in the cognitive domain which occurred during the quarter was unrelated to change in the interpersonal values of SUPPORT, RECOGNITION, INDEPENDENCE, BENEVOLENCE, and LEADERSHIP; however, a relationship did exist betwen learning in the cognitive domain and change in the interpersonal value of CONFORMITY.

4. Analysis of the data concerning the stability of values over a six-month period revealed that values in the experimental group were unchanged. In the control group, values were unchanged except in the dimension of CONFORMITY, where there was evidence that students perceived this value to be more important six months later than they

had indicated at the end of the quarter in which the course was taught. The reader is reminded of the reduced number of students in the control group who participated in the follow-up test (N = 22) as compared to the pretest (N = 52) and the posttest (N = 49).

Recommendations

1. Because the number of women was more than double the number of men participating in the study, it was not considered feasible to determine if the method of instruction was independent of sex. A review of the data, while not statistically tested, indicated results of some interest might have been obtained from such an analysis if the subjects had been more equally distributed according to sex. The researcher recommends that a study including such a variable be conducted.

2. The majority of students participating in the study were business majors. An investigation to determine whether the method of instruction is independent of major is recommended for students representing a variety of disciplines.

3. The student interaction observed by the researcher during the values clarification process was lively, and enthusiasm was evident. In the group experiencing the lecture-discussion method of instruction, the interaction appeared to be between an individual student and the instructor rather than the student-to-student interaction observed in the values clarification group. Through such

classroom interaction, students can be provided with opportunities to develop human relations skills and an awareness of the interdependence of people. Support for the importance of such skills and awareness can be found in the literature review of this study, particularly as emphasized by Kur and Clement (1981). In view of the substantial support in the literature for group interaction and the positive response of students to such a process, further research of the values clarification approach to values education is recommended. Recommendations 4, 5, and 6 apply specifically to the values clarification approach.

4. It is recommended that an instrument to measure other sociometric behaviors be located or developed and a study conducted to determine if the values clarification process produces effects not measured in this study.

5. The importance of values in the decision-making process was emphasized in the literature. The researcher recommends that an instrument be located or developed and a study conducted to measure the effect of values clarification on decision-making skills.

6. Students in this study participated in the values clarification process for eight class periods. A study should be conducted of the effect of the values clarification process over a longer time span.

7. As reported in Chapter 2, Sullivan and Beck (1975) found that while there was little change over one semester in the moral

development of students who had participated in the moral development process, significantly higher levels of moral reasoning for those students were found a year later. Gordon and Mensh (1962) found that medical school training produced value rescaling from the first to the fourth year, as defined and measured by the SIV. The researcher recommends an investigation of the stability of values over a period of time longer than six months to examine whether a different time frame would produce different results.

8. Four major approaches to values education were described in Chapter 2--inculcation, moral development, values analysis, and values clarification. A comparison of the effects of these identified approaches on students' values should be made.

Implications

The researcher is aware that given the substantial number of analyses and the level of significance of this study, the few significant findings could be attributable to chance. The recommendations for further research into values education are based on the need to provide more definitive answers to questions of values education methodology and measurement.

Focusing on the importance of values in the decision-making process, the literature makes a convincing argument for schools to provide an opportunity for students to participate in some type of values education, regardless of the method of instruction.

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APPENDICES

Appendix A. Data Sheet for Descriptive Information

_____Code Number

CLASS:
_____Freshman
_____Sophomore
_____Junior
_____Senior
_____Other (Please specify)

NAME OF MAJOR_____

KIND OF DEGREE:
_____Associate
_____Bachelor's
_____Other (Please specify)_____

SEX:
_____Male
_____Female

AGE:
_____18-22
_____23-30
_____31-40
_____41-50
_____Over 50
_____Other (Please specify)_____

YEARS OF WORK EXPERIENCE:
_____0-3
_____4-10
_____11-15
_____16-20
_____Other (Please specify)_____

Appendix B. Class Schedule

DATE	CONTROL	EXPERIMENTAL
3/31	Pretest (SIV and cognitive)	Pretest (SIV and cognitive)
4/2	Needs and Motivation	Needs and Motivation
4/7	"	Understanding Yourself/Your Career
4/9	Understanding Yourself/ Your Career	Attitudes
4/14	"	Human Relations/Professional Relations
4/16	"	"
4/21	Attitudes	Communications
4/23	"	Problem-solving/Decision-making
4/28	Human Relations	"
4/30	"	Leadership
5/5	Midquarter	Midquarter
5/7	Professional Relations	Process of Values Clarification "-ing" tag
5/12	Values	Values Grid Pie of Life
5/14	Communications	Public Interview
5/19	Problem-solving/decision-making	Partner Risk
5/21	"	Forced-choice Ladder
5/26	"	Brainstorming and Alternative Search

Appendix B. Class Schedule (continued)

DATE	CONTROL	EXPERIMENTAL
5/28	Leadership	Alternative Action Search
6/2	"	Pattern Search
6/4	Posttest (SIV and cognitive)	Posttest (SIV and cognitive)

Appendix C. Cognitive Instrument

1. Using Maslow's philosophy of a hierarchy of needs, rank the following needs in proper order, placing a one (1) before the need that must be met first, a two (2) before the need that must be met next, continuing until you have placed a five (5) before the last need to be met.

_____Affection

_____Self-actualization

_____Physiological

_____Safety

_____Esteem

IN THE FOLLOWING STATEMENTS, IF THE STATEMENT IS TRUE, PLEASE BLACKEN THE "T"; IF THE STATEMENT IS FALSE, PLEASE BLACKEN THE "F".

T F 2. Failure is unacceptable to the self-actualizer.

T F 3. According to the theorists, negative "stroking" can produce positive results.

T F 4. Competition is a social custom and not an inherited instinct.

T F 5. An outstanding characteristic of nearly every successful person is a lack of fear.

T F 6. Since anger is an unpleasant emotion, it is to a person's advantage not to get angry.

T F 7. Emotional behavior is entirely distinct from mental and physical behavior.

T F 8. Of the people who are fired from their jobs, only 20% are discharged because of undesirable personality characteristics.

T F 9. Good human relations and ambition go hand in hand.

T F 10. An adequate pension plan is an example of a personal value.

Appendix C. Cognitive Instrument (continued)

T F 11. Less attention is given to the development of listening skills than to other communications activities.

T F 12. Because a democratic leadership climate is the simplest to achieve, it is the climate most widely used in industry.

T F 13. The ability to plan is the single most important attribute of a successful leader.

IN THE BLANK PRECEDING EACH STATEMENT, PLEASE PLACE THE LETTER OF THE ITEM MOST NEARLY CORRECTLY COMPLETING THE STATEMENT.

_____14. The first step in solving a problem is to

a. seek advice and assistance
b. determine possible causes
c. define the problem
d. reflect on possible solutions

_____15. The last step in solving a problem is to

a. decide on a solution and take action
b. re-evaluate the effectiveness of the solution
c. seek advice and assistance
d. reflect on possible causes

_____16. Most human beings possess a type of problem-solving ability known as

a. brainstorming
b. memory block
c. common sense
d. equilibrium

_____17. Rote learning is easily forgotten because it

a. does not penetrate memory skills
b. has little meaning
c. is done in a hurry
d. does not require concentration

Appendix C. Cognitive Instrument (continued)

_____18. The computer differs from the human brain in that it

a. has no memory
b. has no imagination
c. does not store information
d. cannot relate information in meaningful ways

IN THE FOLLOWING STATEMENTS, IF THE STATEMENT IS TRUE, PLEASE BLACKEN THE "T"; IF THE STATEMENT IS FALSE, PLEASE BLACKEN THE "F".

T F 19. Positive human relations make for a happier business organization but have little effect on actual productivity.

T F 20. Satisfied people are those who will not compromise important values but are willing to compromise less important ones.

T F 21. Since attitudes are primarily the result of thinking, most attitudes are logical reactions.

T F 22. A value is a private thing and should not be made known to others.

T F 23. A telephone conversation is more amenable to correct interpretation than is face-to-face conversation.

T F 24. A set-back in attaining one's goal is usually an indication that the goal is an unrealistic one.

T F 25. How well you remember depends upon your reason for remembering.

T F 26. Theory X leadership style is viewed as being participatory management.

T F 27. External motivation is a necessity of the self-actualizer.

T F 28. One way to influence OK feelings about ourselves and others is through the knowledge and application of "stroking."

Appendix C. Cognitive Instrument (continued)

T F 29. The harmonizers on the job are people who avoid all problems in order to seek approval of themselves by their co-workers.

T F 30. An employee can be loyal to a company while fighting for change.

T F 31. Building good working relationships ensures departmental productivity.

T F 32. A dress code in a business organization can be a source of values conflict.

33. MATCH EACH DESCRIPTION IN COLUMN 1 WITH A DEFENSE MECHANISM IN COLUMN 2. Insert the letter identifying the mechanisms in the answer space.

_____1. Marilyn frequently sighs and imagines she is a fashion designer.

_____2. Bill does poorly on a math exam, then comes home and complains about his roommate's drinking the last of the milk.

_____3. Andy makes up excuses for not helping out with the club's car-wash project.

_____4. Mary reprimands another salesclerk for not showing the customer all the merchandise when this is something she herself neglects to do.

_____5. Joyce pouts and becomes obstinate if others in her crowd don't want to do what she wants to do on Friday night.

A. Compensation

B. Daydreaming

C. Displacement

D. Fixation

E. Projection

F. Rationalization

G. Regression

H. Supression

Appendix C. Cognitive Instrument (continued)

34. MATCH EACH PHRASE IN COLUMN 1 WITH AN OK ATTITUDE IN COLUMN 2. Insert the letter identifying the OK attitude in the answer space.

_____1. Mentally ill	A. I'm OK - You're OK
_____2. Satisfied with self and others	B. I'm not OK - You're not OK.
_____3. Lack self-confidence	C. I'm not OK - You're OK
_____4. Criminally striking at society	D. I'm OK - You're not OK

35. Management attempts to meet the needs of employees. A list of management activities follows. Identify by name which need each activity attempts to meet; i.e., affection, self-actualization, physiological, safety, or esteem.

_____Air Conditioning

_____Promotion to a more advanced position

_____A company bowling team

_____Appointment to the job the individual really wanted

_____Group insurance

Appendix D. COGNITIVE INSTRUMENT WEIGHTING CHART

CONTENT AREAS (See key below*)	1	2	3	4	5	6	7	8	
LEARNER OUTCOMES ADDRESSED IN EACH CONTENT AREA See Appendix E	1,2	3 4,5	6,7	8,9	10	11	12 13,14	15,16	
OBJECTIVES									TOT
Knowledge - 35% Recall or recognition (Number of items)	1	2	1	2	2	1	2	1	/12/
Comprehension - 50% Ability to paraphrase knowledge (Number of items)	2	3	2	3	2	1	3	2	/18/
Application - 15% Ability to select a given rule, idea or procedure appropriate for a new situation and apply it (Number of items)	1	1	1	1			1		/5/
TOTAL NUMBER OF ITEMS	4	6	4	6	4	2	6	3	

*CONTENT AREAS AND WEIGHT PERCENTAGE

1. Needs and Motivation	12%	6. Communication	6%
2. Understanding Yourself/Your Career	18%	7. Problem-solving/ Decision-making	18%
3. Attitudes	12%	8. Leadership	10%
4. Human Relations/Professional Relations	18%		100%
5. Values	8%		

APPENDIX E. Learner Outcomes

AT THE CONCLUSION OF THE COURSE, THE STUDENT SHOULD BE ABLE TO:

1. Identify and rank Maslow's hierarchy of needs, applying them as they relate to the employment situation.

2. Differentiate between types of external and internal motivation.

3. Identify the sources of and differentiate between physical, social, and personal drives.

4. Demonstrate awareness of emotions and their relation to both the body and the mind.

5. Identify the common defense mechanisms and their effect on individual behavior.

6. Identify the "I'm OK - You're OK" combinations and relate these combinations to behavior characteristics.

7. Differentiate between positive and negative attitudes as they relate to success in the business world.

8. Demonstrate an awareness of the importance of human relations and the interdependence of people.

9. Demonstrate how building and maintaining relationships contribute to the productivity of the company and the self-actualization of the individual.

10. Demonstrate understanding of value systems, including identification and sources of values.

11. Demonstrate knowledge of the process of problem-solving and decision-making.

13. Demonstrate knowledge of the communications process, with emphasis on listening skills.

14. Identify some factors affecting memory.

15. Differentiate between leadership styles and their applications to leadership climates.

16. Identify characteristics of effective leaders.

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