

A QUASI-EXPERIMENTAL STUDY TO ASSESS THE EFFECT  
OF AN UNDERGRADUATE SOCIAL FOUNDATIONS OF EDUCATION COURSE  
ON SELECTED STUDENT ATTITUDES

By

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Abstract of Dissertation Presented to the Graduate Council  
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The problem of this study was to assess the effect of an undergraduate social foundations of education course on selected student attitudes, values, and beliefs. The study sought to determine the contribution of a social foundations of education course to a student's demonstration of democratic attitudes as defined by a Likert scale, as well as more specific attitudes dealing with democratic procedural agreements, general statements on freedom of speech, specific applications of free speech, political equality, social and ethnic equality, and economic equality.

The study examined the contribution of social foundations to the congruence of choices made by students with regard to general statements on freedom of speech and more specific statements through comparison of correlation

coefficients. The study also investigated the course's contribution to the integration or logical organization of the student's belief system by comparing changes in correlations of rankings of freedom and equality.

Finally, the study explored the contribution of social foundations of education to the student's demonstration of rational, scientific beliefs, experimentalist educational practices, and dogmatism. Influences by age, sex, social class, and university grade point average were explored.

Pretesting and posttesting of intact experimental and control groups were done with instruments designed to measure dependent variables. The study was designated quasi-experimental because neither subjects nor treatment were randomly assigned. The experimental group consisted of 151 students in five different sections of undergraduate social foundations of education. The control group consisted of 84 students in six different sections of undergraduate human development and learning. Data were collected during the summer quarter of 1974 at the University of South Florida in Tampa and St. Petersburg, Florida.

Statistical analysis was done using the stepwise multiple regression technique with group membership and time of testing dummy coded as independent variables. Fisher's transformation to  $\bar{z}$  was used to compare the significance of differences between coefficients of correlation. The level of confidence used was  $p < .05$ .

Neither group membership nor time of testing were significant except in the comparison of rankings of freedom and equality. This would suggest that further research be undertaken to investigate the possible impact of social foundations of education on attitudes about specific educational issues, the processes of attitude formation, and the significance of variation in methods used in such courses.

The results of this study indicated:

1. That students who have had an undergraduate social foundations of education course appear to have a greater understanding of the relationship between freedom and equality than students who have not had such a course.
2. A direct relationship between university grade point average and democratic attitudes.
3. An inverse relationship between university grade point average and support for economic equality.
4. An inverse relationship between social class and support for economic equality.
5. An inverse relationship between age and economic equality.
6. A direct relationship between age and social and ethnic equality.
7. A direct relationship between university grade point average and dogmatism.
8. A direct relationship between maleness and dogmatism.
9. A direct relationship between social class and rational, scientific beliefs.

10. A direct relationship between maleness and rational, scientific beliefs.
11. A direct relationship between university grade point average and experimentalist educational practices.

James P. Stein  
Chairman

## CHAPTER I

### INTRODUCTION

#### Statement of the Problem

The general problem addressed by this study is the assessment of social foundations of education. Other studies have approached this problem in a variety of ways. Examples are Conant's impressionistic survey of teacher education (1963), Martin's historical study (1968) and Clarke's study of textbook content (1968). While these studies may or may not provide sound evidence and reasonable conclusions about teacher education and social foundations of education, this study attempts to do so through examination of the impact of a social foundations of education course on its students. More specifically, this is done by developing empirical evidence from actual course operation. Therefore, the purpose of this research is to assess the effect of an undergraduate social foundations of education course on selected student attitudes, values and beliefs.

The study uses instruments which measure changes in attitudes, values and beliefs through pretesting and post-testing students in various sections of social foundations

courses. A control group of similar students is used to assess the significance of changes demonstrated by social foundations students. The study could be described as a pretest posttest experimental control group design. Since intact groups were used and neither subjects nor treatment were randomly assigned, the study has been designated quasi-experimental to indicate that it does not constitute a true experiment as defined by Campbell and Stanley (1963).

The social foundations of education course under study is regularly taught at the University of South Florida. It is required of all students receiving an undergraduate degree from the College of Education and may be taken by those students who wish to be certified as public school teachers by the state of Florida.

The study will determine the contribution of the social foundations of education course to a student's demonstration of democratic attitudes as defined by a general scale of such attitudes. This scale is subdivided into several components which allow the examination of the student's acceptance of the procedural agreements of democracy, general statements on freedom of speech, specific applications of free speech and procedural rights, political equality, social and ethnic equality, and economic equality. Investigation of social foundations' influence on democratic attitudes is thought to be legitimate since it is said that such study ought to

provide professional educators with a sense of purpose or vision (Sherman, 1974). Also, social foundations is said to have an emphasis on educational decision making (Derr, 1965) and policy study (Raywid, 1972). Such an emphasis necessarily involves the question of what should or should not be which, in turn, is affected by knowledge of and response to such major cultural universals as the democratic ideal.

The study examines the contribution of the course to the congruence of choices made by students with regard to general statements on freedom of speech and more specific statements. This is done by comparing the correlation of scores on the pertinent subscales noted above. Also, the study compares the change in correlation of rankings of freedom and equality as a result of having had social foundations study. The purpose of this is to investigate the course's contribution to the integration or logical organization of the student's value system. Stanley (1968), Raywid (1972), and Broudy (1972) have argued that foundations study may make such a contribution.

In addition to the above, the study examines the contribution of social foundations of education to the student's acceptance of experimentalist beliefs and educational practices. It is assumed that this provides a valid indication of a critical, rational scientific predisposition in the student. Finally, the study explores the contribution

of the course to the extent that a student's belief system may be open to change.

Influence by age, sex, social class and university grade point average on the above matters is also explored.

#### Significance of the Study

The results of this study should provide empirical evidence regarding the extent to which an undergraduate social foundations of education course accomplishes a portion of its purposes. This study examines the influence of actual course operation on enrolled students. It is hoped that such evidence will provide a basis for evaluating social foundations in addition to past studies which have relied on text materials, course descriptions, historical data or normative essay.

This evidence should prove helpful in judging claims made by various critics regarding the desirability of such courses.

Finally, this study should be helpful to those who are responsible for teaching and improving social foundations of education courses.

#### Hypotheses

1. Neither group membership nor time of testing are significant predictors of scores on the Scale of Democratic Attitudes.

2. Neither group membership nor time of testing are significant predictors of scores on the subscale of Procedural Agreements of Democracy.

3. Neither group membership nor time of testing are significant predictors of scores on the subscale of General Statements on Freedom of Speech.

4. Neither group membership nor time of testing are significant predictors of scores on the subscale of Specific Application of Freedom of Speech and Procedural Rights.

5. Neither group membership nor time of testing are significant predictors of scores on the subscale of Political Equality.

6. Neither group membership nor time of testing are significant predictors of scores on the subscale of Social and Ethnic Equality.

7. Neither group membership nor time of testing are significant predictors of scores on the subscale of Economic Equality.

8. Neither group membership nor time of testing are significant predictors of scores on the Dogmatism Scale.

9. Neither group membership nor time of testing are significant predictors of scores on the Personal Beliefs Inventory.

10. Neither group membership nor time of testing are significant predictors of scores on the Teacher Practices Inventory.

11. There is no significant difference in the change in the correlation of scores on the subscale of General Statements on Freedom of Speech and the subscale of Specific Application of Freedom of Speech and Procedural Rights between the control group and the experimental group.

12. There is no significant difference in the change in the correlation of the ranking of Freedom and the ranking of Equality on the Value Ranking Test between the control group and the experimental group.

13. Hypotheses one through ten will be tested to determine the effect of age, sex, grade point average and social class.

#### Limitations

Data for this study were gathered during the fourth academic quarter of 1974 at the University of South Florida in Tampa and St. Petersburg, Florida. The study was limited to undergraduate sections of social foundations of education. Generalizations resulting from the study will be limited by these factors.

### Definition of Terms

1. Social Foundations of Education Course: An upper level undergraduate course for four quarter hours credit regularly offered at the University of South Florida. This course is defined by the university as the study of the "social, economic, and political context within which schools function and the values which provide direction for our schools; the culture as a motivating influence in instruction" (University of South Florida, 1973, p. 151). Further, the word course is defined to include the effect of a particular instructor and curriculum materials.

2. Attitude: "a relatively enduring organization of interrelated beliefs that describe, evaluate, and advocate action with respect to an object or situation, with each belief having cognitive, affective, and behavioral components" (Rokeach, 1968, p. 132).

3. Belief: "a predisposition that, when suitably activated, results in some preferential response toward the attitude object or situation, or toward others who take a position with respect to the attitude object or situation, or toward the maintenance or preservation of the attitude itself" (Rokeach, 1968, p. 132).

4. Value: "a type of belief, centrally located within one's total belief system, about how one ought or

ought not to behave, or about some end-state of existence worth or not worth attaining. Values are thus abstract ideals, positive or negative, not tied to any specific attitude object or situation, representing a person's beliefs about ideal modes of conduct and ideal terminal goals" (Rokeach, 1968, p. 124).

5. Democratic Attitudes: Defined by agreement or disagreement to specific statements on a Likert-type attitude scale (Oppenheim, 1966, pp. 133-42).

6. Procedural Agreements of Democracy: A subscale of a Likert-type scale on democratic attitudes.

7. General Statements on Freedom of Speech: A subscale of a Likert-type scale on democratic attitudes.

8. Specific Application of Free Speech and Procedural Rights: A subscale of a Likert-type scale on democratic attitudes.

9. Political Equality: A subscale of a Likert-type scale on democratic attitudes.

10. Social and Ethnic Equality: A subscale of a Likert-type scale on democratic attitudes.

11. Economic Equality: A subscale of a Likert-type scale on democratic attitudes.

12. Experimental Beliefs: Defined by Bob Burton Brown's Personal Beliefs Inventory (1968, p. 82).

13. Experimentalist Educational Practices: Defined by Bob Burton Brown's Teacher Practices Inventory (1968, p. 87).

14. Openness to Change of Belief System: Defined by Milton Rokeach's Dogmatism Scale (1960).

## CHAPTER II

### REVIEW OF THE LITERATURE

During the past decade there has been considerable discussion concerning the nature and functioning of the field of study known as social foundations of education. Indeed, this might be expected in a field which has so recently developed. Historical development of the field has been described by Quillen (1965), Martin (1968), and Clarke (1968). This discussion has not only included professionals working in the field, but prestigious outsiders such as James Bryant Conant (1963) as well. Although R. Freeman Butts has recently judged the discussion to be "a heartening sign of vitality and pertinence" (1973, p. 27), much of it has addressed alleged fatal weaknesses.

#### The Critics

Some of the harshest criticism of foundations courses in general can be found in Conant's impressionistic survey of teacher preparation institutions done in the early 1960's. Conant criticizes not only the courses, but the professors as well:

Those in charge of the foundations courses often attempt to patch together scraps of history, philosophy, political theory, sociology, and pedagogical ideology. The professors are frequently not well trained in any one of the parent disciplines; certainly very few have such mastery of all the disciplines as to be able to talk about them except at the most superficial level . . . In general, however, I would advise the elimination of such eclectic courses, for not only are they usually worthless, but they give education departments a bad name. I have rarely talked with students or school teachers who had good words to say for an eclectic foundations course. Perhaps the kindest word used to describe most of these courses was "pathetic." (p. 127)

Conant's sweeping condemnation urges the elimination of these worthless and pathetic eclectic scraps which are taught by superficial and inadequately trained people whose students dislike such courses.

In appreciating the validity of Dr. Conant's opinions, consideration should be given to the procedures used in forming those opinions as well as the author's background in the traditional academic discipline of chemistry. The point to be raised here and following is to the method and criteria employed in making judgments. While there may be foundations courses and professors who are guilty as charged, it does not seem that the claims advanced by Conant are amply proven. He explicitly admitted that his study "relied heavily on the opinions of classroom teachers" (p. vii). There is little attempt to assess the possible biases of those opinions nor is there evidence of careful empirical study to assess the nature of these courses and their

professors. Additionally, it is possible that Conant's traditional academic background in chemistry may have made him susceptible to a dislike or, at least, a lack of understanding of courses which attempt to be interdisciplinary and have goals which are professional as well as scholarly.

Conant's opinions regarding foundations courses were developed and widely circulated in the early 1960's. They were parrotted in the early '70's by the journalist Charles Silberman in his widely read book, Crisis in the Classroom (1970). These hastily drawn conclusions were probably detrimental to desirable teacher education programs inasmuch as they contributed to pressure for reduction or elimination of foundations study. Without serious study of well-developed foundations courses, teacher education may come dangerously close to mechanical training resembling a trade school approach.

In 1964 Charles J. Brauner, a professional educator, concluded that the foundations of education constituted a moralistic doctrine. Brauner's analysis focused on the early foundations programs at Columbia University and the University of Illinois with much attention given to the work of Harold Rugg whose influential book The Foundations of American Education was published in 1947. Rugg's book describes the development of the early foundations programs and provides the bulk of Brauner's evidence. Brauner notes:

From Dewey through Brameld, the tendency has been to build an emphasis on subjective belief into an instrument for achieving specific personal commitment among practitioners . . . . By adding the creative expression of the men of force to the construction of a theory of American society as a whole, viewed in the framework of the struggle for power, Rugg added two ingredients: (1) emotional content and (2) such broad speculation that careful scholarship had to be forsaken for conversational talk which took objective information for granted. In addition, he directed attention to the specific content of the welfare state and the principles of democracy. The dogmatic nature of the belief to be achieved can be judged from the following assertion by Rugg: ". . . democracy is the only proper government for family, school, community, nation, or world; the people together distill judgment and decisions out of their collective experience." (pp. 218-219)

Brauner further explains in a tone that he frequently invokes:

By emotional and intellectual means, the foundations of education would cultivate belief in a particular social doctrine which prescribed how a man should relate to his fellow man. Gentle and general though the prescription might be, restrained and restricted as the emotional and intellectual persuasion might be, the foundations-of-education approach to teacher training had become oratory for a moralistic doctrine. Social reconstructionism became its most virulent form. Journalism emerged as "educational theory."

The academic world tends to pride itself upon maximizing clear, explicit, intellectual understanding, all the while analyzing overgeneralizations and dissecting hollow abstractions. By celebrating the poetic and ritualistic side of general ideals, the foundations programs, however, tended to maximize the emotional and unscholarly side of instruction. Such direct pursuit

of commitment and belief made the foundational courses resemble a minister's sermon rather than a professor's lectures (p. 220) . . . . In sum, the foundation movement strove to establish education as a literary discipline operating between the exacting scholarly and logical demands of philosophy and the careful, detailed attention to literal description prerequisite to empirical science. (p. 223)

Brauner's obvious complaint then was that the foundations of education, particularly social foundations, attempted to create unanimity of belief and in doing so departed from the standard of dispassionate objectivity. However valid these claims may be of those whom Brauner has chosen to analyze, it would seem equally obvious that his work was narrowly focused. He chose to analyze particular text materials written by particular individuals at a particular time. It would appear that it remains to be seen that such courses were actually taught in a moralistic fashion. Reliance on particular text materials as evidence would not be sufficient to determine whether ministers' sermons or professors' lectures were actually occurring in social foundations classrooms. The point is similar to the one made above. One may well wonder whether Brauner's conclusions exceed the evidence and method used in his study.

George L. Newsome (1971), another harsh critic of social foundations, takes Brauner to task:

Brauner's charge that social foundations of education is a moralistic doctrine rests largely upon his analysis of two works, Harold Rugg's Foundations for American Education and Theoretical Foundations of

Education authored by the staff in social foundations at the University of Illinois. In each case, it seems to be more the conception of social foundations than it is the content of any courses that is considered. Brauner made no attempt, apart from the works mentioned, to determine whether the materials and instructional procedures used in actual courses were moralistic or doctrinaire. Granting the importance of conception of a subject in the shaping of the subject and the teaching of it, it must be remembered that Brauner considered primarily one conception and two rationales for it. The conception studied was, perhaps, the most common one, but it is not the only one. (p. 23)

In contrast to Brauner's singular indictment of social foundations courses as moralistic, Dr. Newsome finds that the term has many and "confused" uses. He lists seven:

- [1] . . . Divisions of departments offering a wide array of courses in history of educational, philosophy of education, educational psychology, and the like often go by the name Social Foundations of Education.
- [2] . . . Introductory courses in education are sometimes called "foundations."
- [3] . . . Interdisciplinary courses . . . are often called "social foundations."
- [4] . . . Some courses that deal exclusively with sociology or anthropology in relation to education are called "social foundations."
- [5] . . . Titles for some book and occasionally course titles seem to indicate that there can be "foundations" . . . of many special fields in education . . . curriculum, administration, urban education, and other subjects.

- [6] The word "foundation" is often found in titles of books of readings in education.
- [7] . . . Finally, there are books, and no doubt courses as well, that are plainly partisan, ideological and prescriptive. (pp. 23-24)

On the basis of these observations Newsome states that:

With the exception of special courses in history of education, philosophy of education, educational psychology, and the like, most social foundations courses tend to be a hodge podge of unrelated or poorly related materials taken from other disciplines. (p. 24.)

He further concludes that:

The nebulous characteristics of social foundations, their frequently moralistic doctrinaire aspects, their general impotency in teacher training, their uselessness as introductions to more specialized courses and their failure as advanced interdisciplinary studies, leaves no place for them in teacher education. (p. 26)

So then Newsome recommends the elimination of social foundations primarily on the basis of varied course descriptions, textbook titles and arrangements of administrative convenience. It would seem that his conclusions are susceptible to the same kind of critique that he has made of Brauner's. That is, Newsome has made little, if any, attempt to determine whether the materials and instructional procedures used in actual courses were confused, hodge podge or moralistic. It would appear that these conclusions are not warranted by the evidence of varied "uses." Perhaps another writer could make the same seven observations and conclude that they represented a variety, and even a

desirable variety, which one could find in any field. Again, the point is that careful empirical study of actual course functioning and impact may help us avoid hasty or erroneous conclusions which are ultimately harmful to teacher education.

In 1968 James J. Shields, Jr., a much milder critic, argued that social foundations should become more relevant, integrative and analytic (p. 77). By relevant he meant that such courses should pay more attention to the phenomenon of metropolitanism and urban education. By integrative and analytic he meant they should make greater use of the tools and research findings of contemporary empirical social science as well as the humanities. According to Shields these things were not only needed, but were actually occurring:

This trend, which to many represents a "coming of age" for foundations departments, has been greatly accelerated by the vigorous attention social scientists have been giving to the school as an institution and education as a social process. Along with their professors, graduate students in all disciplines have been turning to education for their research studies. As these students complete their studies, many of them accept positions in graduate schools of education and join the ranks of the "young turks" who are transforming departments of educational foundations into departments of philosophy and social sciences. . . . As a consequence of this development, and as more and more of those teaching foundations ask to be identified with a traditional discipline rather than education, the entire definition of educational foundations will change.  
(pp. 81-82)

Shields sees no fatal weaknesses nor does he recommend the elimination of foundations courses. He sees improvement occurring through the recruitment of specialists outside the field of education whose primary identification will be with their respective disciplines.

C.A. Martin's historical study shows this occurring since World War II (1968). Martin found that:

After World War II a rather substantial shift occurred in the nature of the social foundations component of the teacher education programs considered. Labelled in this study the Stage of Precision, the 1946-63 time period witnessed younger instructors with stronger backgrounds in one of the social sciences or philosophy making great alterations in the social foundations programs which developed during the Stage of Romance. Rejecting the moralizing approach of the 1930-45 time period, the new instructors seemed less convinced that all students needed to take narrowly prescribed work in the social foundations. Thus they relaxed the requirements relating to this component of the teacher education program. Nor did they view the interdisciplinary, problem-centered courses as favorably as had their earlier counterparts. Indeed, they showed open preference for the separate subject social foundations courses such as the history of education and educational sociology. Such courses, which drew more heavily upon the content and research methods of a single academic discipline, proved more suited to the subject-matter oriented social foundations program which developed after 1945. (pp. 279-280)

Shields argues the necessity of foundations to become more integrative, but acknowledges that the recruitment of academic specialists outside education will create a fragmentation of study. He views this as a necessary and

inevitable stage in the evolution of foundations. He sees another stage beyond this:

Another stage must follow in which intensive effort is devoted to facilitating communication among scholars studying education in all disciplines. The first step in achieving this, of necessity, has to be the creation of courses and programs that will produce individuals who are adept enough in the entire range of disciplines represented in the humanities and the social sciences that they can integrate the research findings related to education into a coherent and systematic body of knowledge. These individuals would approach the disciplines in terms of the scholarly needs of education and not vice versa as is customary among those in the traditional academic areas. (p. 84).

Shields' position is that education is not a respectable scholarly field nor can it become so through its own since it must hire outside specialists. These specialists will fragment the study of education, and they must somehow be brought together to produce an integrated body of knowledge and discipline of education. Many believe this is what social foundations attempts to do in the first place. Shields' evolutionary notion leaves many questions unanswered such as who will do the integrating and how. This may be a major problem considering the acknowledged customary allegiance of the specialists.

In 1969 Wayne J. Urban considered the Shields position and found it to be "naive in the reliance on the traditional disciplines" (p. 204). Urban analyzes two traditional social science disciplines, sociology and political science, and finds disagreement between the more

traditional specialists and a new breed of generalists (pp. 201-204). While Urban thinks that while both Conant and Shields have been "very attuned to the weaknesses and difficulties in the study of social foundations of education," his inclination is:

to search in the directions of a more general type of social theory which might enable one to make intelligent use of the myriad of educational research and which also might enable those in social foundations to identify some key problems and ideas that need to be researched. (p. 204)

Then Urban's position argues the necessity for a generalist or broad approach to understand and use the product of specialists, particularly the existing product of educational researchers.

Shields' work (1968, 1969) might be classified as normative essay based heavily on a review of social foundations textbooks. This approach has merit in assessing the quality of textbooks, but it has limitations in assessing the relevance, integration and analysis present in a field of study. A valuable supplement would be to examine the nature of professional journals as well as student textbooks. Also helpful would be an examination of all course materials and actual course operation. Shields has not done this.

A common thread that seems to run through the arguments of Conant, Brauner, Newsome and Shields is the study of education has been too broad, ill-defined and

prescriptive; yet it can be improved to become more specific and analytic with reliance on the tools, knowledges and orientations of those specialists in the traditional disciplines. Others besides Urban have argued against this. In 1964 John Walton maintained the necessity of establishing a separate discipline of education for three reasons: (1) there are important aspects of education such as teaching and the curriculum which have no place in other disciplines; (2) other disciplines do not have education as their central interest; and (3) students of education should belong to a community of discourse where education is the major focus (p. 265). Walton saw no improvement through reliance on outside specialists. In 1961 Elmer Eason found that educational sociology, as an example of academic specialty, would be too narrow and restrictive in studying the social aspects of education. He argued that one:

should not be restricted to the scientific dimensions of description, prediction and explanation. Such instruction should also include the philosophical dimensions of justification and meaning. Further, in its scientific dimensions, such instruction should be alert to relevant resources existent in all of the social sciences—not only in sociology of education. In addition, instruction in the social aspects of education at the undergraduate and beginning graduate levels should not be fragmented so that empirical questions are studied in one course and normative questions are studied in another. (p. 142)

The study which did all these things according to Eason was social foundations of education.

The Nature of Social Foundations of Education

The critical judgments of various writers, particularly Conant and Brauner, appear to have generated much discussion of the field. While some of the discussion has been defensive, much of it has been devoted to clarifying the nature of social foundations, its necessity and improvement.

In 1965 Quillen attempted to distinguish between social foundations and other similar studies. Quillen noted that:

"Social foundations" has a broader connotation than "educational sociology." It is concerned with the contribution of all social sciences to an understanding of the interaction of educational institutions and the larger society. . . . The content of the social foundations of education draws from anthropology, economics, political science, and social psychology. It also includes content and methods from sociology, cultural and social history, and social philosophy. (pp. 74, 76)

Therefore, social foundations was considered to be interdisciplinary in content and method with scope broadly focused on the institution of education. While Quillen maintained that there was little doubt of the value and growing importance of social foundations for teacher education, there was need for a clear definition of its nature (p. 84).

Also in 1965, Richard L. Derr attempted to define social foundations of education with an emphasis on its

potential contribution to educational decision making. In Derr's opinion social foundations referred to the social factors relevant to schooling and the courses, programs and literature of education which are brought together to review the social aspects of schooling. Derr states that:

As things now stand, "social foundations of education" seems to denote two related things. First, it refers to social factors which inquiries in the social sciences or in education presumably have shown to be relevant to the school's operation.... Second, social foundations refers to the courses, programs, literature in education where the results of these inquiries usually are brought together to permit an extensive review of social aspects of schooling. (pp. 154-55)

In addition to Derr's references to programs of instruction and the social aspects of schooling, there is emphasis on the practical application of social foundations in policy making. He states that, "There is then a need for a branch of study in education which specializes in identifying, integrating, and interpreting that knowledge in the social sciences which pertains to the social dimension of educational decision-making" (p. 156). This could be best done, according to Derr, by making social foundations into an acknowledged discipline with its own corps of specialists. These specialists would then inform educational decision makers of relevant social conditions so that policy making would be more effective. Derr sees this policy orientation as in keeping with current trends and practices.

In 1968 William O. Stanley developed two rationales for social foundations of education which included philosophy and history of education. Stanley argued that as a field of inquiry education can be viewed as a liberal arts discipline or as a professional study (p. 227). When viewed as the former, the educational institutions of society constitute a definite and unique field of study. In this context Stanley felt that social foundations needed no defense (p. 228). However, the latter context proved troublesome. Stanley felt that opposition to the use of social foundations in the preparation of teachers was due to a "craft mentality" which views the occupation of public school teacher as nothing more than a competent classroom operator (pp. 227-29). Similarly, in 1969 Howell and Shimahara argued that the vocational bias of a significant number of education professors resulted in opposition to foundations study. Stanley judges this conception as unacceptable for several reasons: (1) it assumes that all of the basic problems of education are solved or can be solved without the participation of the classroom teacher; (2) if we view the teacher as a technician, we cannot recruit the best brains for the job; (3) the notion creates and perpetuates a vicious segmentation in the ranks; and (4) if one set of people determines policies and goals while another set does the classroom teaching, then the goals and policies will be skewed and altered in their application (pp. 229-30).

Hence Stanley saw a major role for social foundations in the professional preparation of classroom teachers. Foundations study would provide teachers with interpretive knowledge. Interpretive knowledge is the knowledge of the generalist which locates problems within a set of meanings and provides understanding of the problem (p. 235). Then interpretive knowledge would rationalize practice and equip classroom teachers with the ability to participate intelligently in the determination of educational policy. Stanley concludes:

If the foregoing argument is at all sound it is clear that without technology you do not have an effective professional practitioner, but without theory you have only a technician. For me the conclusion is inescapable that we will not have a profession of teaching nor a corps of teachers adequate to the demands of education in our time until the teacher-preparation program encompasses a good general education, a thorough grounding in the subject matter of the courses to be taught, a substantial background of interpretive knowledge about the education enterprise as a whole sufficient to produce nascent educational statesmen, and the theory, technology, and practice in the skills needed by the particular specialty of the prospective educational worker. (p. 235)

In 1972 Mary Ann Raywid attempted to bring some order to the various discussions about the nature of social foundations. She located seven features which described the field.

- [1] Policy Oriented Study. The clearest and most prominent feature of the field is its policy focus. . . .

- [2] Unifying-Integrative. In order to accomplish its policy-decision function social foundations must draw on disparate fields. It is interdisciplinary.  
....
- [3] Interpretive. The field is interpretive not only to distinguish between fact and value, but to distinguish between differing descriptive claims involved in policy determination. . . .
- [4] Methodological Sophistication Required. In order to integrate the findings of the various disciplines methodological sophistication is necessary. . . .
- [5] Contextual Preoccupation. Examination of the social context of education is necessary for policy formulation. . . .
- [6] Ideas and Beliefs are of Concern. Social foundations assumes that ideas and beliefs have significant influence in the determination of educational policy. . . .
- [7] Contemporaneous Orientation. Social foundations is preoccupied with present circumstances, events and conditions in order to advise on educational policy. (pp. 75-77)

To Raywid the major justification for social foundations of education is its role in the professional preparation of teachers. She argues that social foundations:

Represents a teaching field, not an academic discipline. It is put together for instructional not for research purposes, and there is no reason why it need try to meet or answer to the criteria marking and measuring academic disciplines, which are primary fields of inquiry. The particular "package" constituting Social Foundations is assembled on the grounds that it unites disparate material bearing on educational issues, using the issues themselves as the selecting and organizing principle. (p. 78)

Others such as Stanley and Derr would obviously agree that social foundations has a major responsibility in the preparation of teachers. They would also agree that this could be legitimately accomplished through policy analysis. However, Raywid's claim that social foundations' policy focus and interdisciplinary approach preclude it from the status of an academic discipline may have some difficulty when one considers the policy focus and integrative approaches urged in some of the recognized disciplines such as economics and political science. Walton (1964), Stanley (1968) and, particularly Laska (1969), have argued the foundations studies have standing as academic disciplines. For Laska this is their primary reason for being, while Stanley sees a dual role of professional and academic responsibility.

Despite these differences there seems to be a broad area of agreement that social foundations has an important professional role to play. Raywid's seven characteristics taken together would seem to be agreeable to Stanley's notion of interpretive knowledge. Harry Broudy (1972) has recently made similar references to foundations studies providing what he calls interpretive theory as opposed to applicational theory:

The point, therefore, is whether these studies are useful in some sense other than as a source of rules to be applied to practice. This is an issue in all general studies and in the role of foundational studies in any professional curriculum. The most plausible defense of them is to point out that they provide

the context of practice rather than the rules for practice. Thus, an understanding of the sociology of poverty does not directly give rules for healing the diseases of the poor, but the dietary prescriptions that a physician might give to the poor will be more enlightened if he does understand the sociology of their condition. Knowledge of the social context, therefore, affects the general strategy of education, of appraising the teaching situation in many dimensions, and for making decisions that take account of these dimensions. (pp. 56-57)

It would seem reasonable to judge social foundations of education according to the role it seeks to play. To many it has a major role in providing at least contextual-interpretive knowledge to those who would be professional educators.

#### The Problem of Assessment

If one is willing to grant that social foundations of education has the potential to make contributions either as a discipline or as professional education, one might wonder about progress. Can an assessment of the field be made? A review of the literature produces a few very negative opinions. Much of what has been written is essentially supportive. There has been a great deal of discussion of the purpose and nature of the field. Recommendations for reforms have been advanced. However, almost all of the writing has been in the form of normative essay. And, as the first part of this chapter sought to demonstrate,

conclusions reached about social foundations as a field of study may have no firm base of evidence. There is a distinct lack of hard empirical data to indicate what is really occurring in the field, at least as it attempts its professional education function. On this alone, it may be very difficult to arrive at a defensible assessment of the field.

Some have been fond of the notion that much of past educational research has been disparate, unorganized and without focus. This notion is probably true. However, opinions and conclusions about social foundations of education as a field of study might benefit from the caution and firm base of empirical evidence that the educational researcher expects as he engages in the process of evaluation. Empirically based research studies may be helpful in providing sounder conclusions about how we are doing.

In addition to this evidence problem, some criticism of social foundations may be guilty of mixing evaluational criteria. Part of the problem appears to be that many critics have been legitimately concerned with improving the field's standing as a discipline. Some of these critics have applied criteria appropriate to traditional academic disciplines to the professional education function of social foundations. In its professional education function, social foundations is interdisciplinary in order to reach a closer approximation of reality. To some this interdisciplinary

aspect violates traditional academic specialization. Furthermore, social foundations as professional education has developed an extensive policy study emphasis. In doing this it must deal with educational prescriptions. This policy aspect would appear to run counter to the notion of dispassionate objectivity. Other sources of complaint have been school administrators, classroom teachers, student teachers, and some professors of education who have argued that social foundations is too theoretical, too idealistic or unrealistic. This group appears to expect specific classroom recipes which will insure survival or success in the day-to-day life of the school. This expectation in itself is unrealistic considering what is or is not known with certainty about teaching and learning. If social foundations attempts to become more discipline-like and attempts to develop more fundamental, basic and specialized knowledge about the social aspects of education, then it may appear to be irrelevant, in an immediate sense, to school people. The point to be made is that evaluational criteria ought to be appropriate to the function being performed by social foundations. A similar point has been made recently by Robert R. Sherman (1974) who has argued that most of the criticism and analysis of social foundations has been of little value because it has failed to evaluate the field in reference to its purpose. Evaluation of social foundations should be done in reference to its

functions. To evaluate social foundations in its professional role by invoking traditional academic standards which have condemned advocacy and the interdisciplinary approach would seem unfair. To apply professional considerations in judging social foundations when it attempts its academic function would be similarly unfair.

#### What Should Social Foundations Study Accomplish?

In light of the above discussion, it would seem that social foundations has at least two major goals to accomplish—one professional, the other academic. To many writers social foundations has a role in providing contextual-interpretive knowledge to those who would be professional educators. However, the professional should not expect specific and definite rules for practice since our understanding of the educational process in general, as well as its social aspects, is limited. Inquiry in the social aspects of education should enhance one's understanding of the context of practice and suggest ways of improving practice. In addition to this, the policy orientation of social foundations is thought to have benefit for school people. Policy emphasis should lead to a clearer understanding of the social aspects of competing claims made about the proper functioning of schools.

Social foundations is thought to have a role as an academic discipline. Inasmuch as the institution of

education is a major social institution which deserves to be regarded as a legitimate field of study, so should the study of its social aspects be regarded. It is conceivable that the development of such a discipline will probably lead to a practical payoff for classroom teachers. However, it is also conceivable that the study of the social aspects of education could be a legitimate object of intellectual curiosity in its own right without yielding an immediate benefit to classroom teachers. In this sense the disciplines of economics or political science have been pursued.

Sherman (1974) has defined social foundations as a field which should provide fundamental knowledge and, most importantly, vision to professional educators:

The idea of social foundations was—and is—that education and the culture interact and that it is essential for teachers to base their study and practice on fundamental knowledge relevant for directing the culture, through education, toward preferred ends. . . . As well as drawing together the resources for describing and analyzing the culture and the role of education, the study of social foundations should help to generate the vision which gives point to what we do and might do with education. . . . Specifically, I believe that in the social foundations course itself we need to be as concerned with questions about the possible and intended uses of education—in the sense of those to be chosen deliberately—as we are with describing the cultural setting. (pp. 5-6)

For Sherman that vision will be found in the liberal democratic tradition. He concludes:

We could, through the social foundations, revitalize the liberal democratic tradition and base our education on and judge it as it contributes to that tradition through experience, the interdisciplinary approach, and the test of results in action. This is still the work of the social foundations in the 70's. (p. 11)

### Conclusion

There is a need for more effective assessment of social foundations not only to avoid erroneous and harmful conclusions, but to improve the possible contributions of the field. Furthermore, this assessment should be done in reference to the functions or purposes of the field using the tools and methods of modern empirical social science as well as philosophy and history. More specifically, this study attempts to explore through the use of experimental design and statistical technique the actual operation and impact of social foundations on the valuational-attitudinal structure of its students. Such a study should provide a firm base of evidence through which social foundations can be assessed and improved.

## CHAPTER III

### METHOD

#### Design

This study is designated a quasi-experimental pre-test-posttest control group design. The experimental group consisted of students enrolled in all sections of the undergraduate social foundations of education course. The control group consisted of students enrolled in all sections of the undergraduate human development and learning course during the same academic term. Concurrent registration for this course and the undergraduate social foundations of education course is discouraged as a matter of university policy. Students normally complete human development and learning before taking social foundations. Students previously or concurrently exposed to social foundations were eliminated from the control group.

Pretests were administered during the first week of the academic term to both experimental and control groups. Posttests were administered during the last week of the academic term. In order to minimize time consumed for testing, each group was randomly divided in half with one half

being pretested with the Scale of Democratic Attitudes and the Personal Opinion Questionnaire while the other half was pretested with the Personal Beliefs Inventory, Teacher Practices Inventory and Value Ranking Test. On posttesting the administration was reversed.

This study is designated quasi-experimental after terminology popularized by Campbell and Stanley (1963). The design does not qualify as a true experiment because subjects are not randomly assigned to experimental and control groups nor is the treatment randomly administered. Therefore, the design is termed quasi-experimental.

Randomization is done to promote the equivalency of groups to eliminate threats to validity. The degree of control necessary to accomplish this sort of randomization is not possible in this study because of university policy. However, practical equivalence of the experimental and control groups can be defined by noting a number of similarities. Both groups are composed of students enrolled in upper level (300) undergraduate courses worth four quarter hours required by the university of education majors and those desiring certification as public school teachers. Both courses are normally taken within one academic term of each other. Both courses normally enroll students majoring in a variety of educational specialties. It would appear that the internal validity of the study would not be threatened and that the intervening effects of history,

maturity, testing, instrumentation, regression, selection, mortality, and selection-maturity interaction would not be present unless substantial reason could be given to suspect otherwise (Campbell and Stanley, 1963, pp. 5-6).

The intent of the study was to assess the impact of the undergraduate social foundations of education course as it was normally taught to a majority of students enrolled during a particular term. Variation in instructors and curriculum materials were considered to be expected, acceptable, and an inseparable aspect of course offerings. Therefore, rival hypotheses supported by these variables were considered irrelevant given the intent of the study. Further, the dependent variables used in the study could be applied appropriately in all various sections of the course.

The external validity of the study could be qualified. The social foundations of education course under study was taught at one institution and the findings of this study would not necessarily be applicable to courses taught at other institutions. Therefore, it is conceivable that the results obtained from the experimentally accessible population may not always hold true for the general population (Bracht and Glass, 1968, p. 438). However, the course was not unusual in its conception and was very similar to social foundations of education courses taught elsewhere. To the extent that this can be illustrated by comparing course descriptions of social foundations of education,

the following examples should be noted:

- [1] [The study of the] social, economic and political context within which schools function and the values which provide direction for our schools; the culture as a motivating influence in instruction. (University of South Florida, 1973)
- [2] A study of the educative effects of our social structures, the social values and issues involved in appraising these effects, and the resulting social demands upon the schools. (University of Florida, 1972)
- [3] A study of the historical and contemporary relations of education and society, and of schools and colleges as social systems, from the perspectives of the social sciences. (University of California, Berkeley, 1972)

Strictly speaking, the above factors should be considered in interpreting the results of the study. The steps necessary to control for possible interference would be arduous and the practical outcome might be inconsequential. It is thought that the need and benefit from a study of this design outweighs its potential and remote qualifications.

#### Collection of Data

Data were collected by the author during the summer quarter between June 17, 1974 and August 23, 1974 at the Tampa and St. Petersburg campuses of the University of South Florida.

Pretesting in the experimental group involved 151 students in five different sections of undergraduate social foundations of education. Posttesting involved 140 students in the same number of sections. Three students in the experimental group refused to cooperate. Eleven students were not available for posttesting, due to their failure to complete the course or class absence.

Pretesting in the control group involved 84 students in six different sections of human development and learning. Posttesting involved 54 students in the same number of sections. One student in the control group refused to cooperate. The difference of 30 students between pretesting and posttesting was due to failure to complete the course and class absence. It is suspected that class absence was the primary factor because two sections of the control group course had a so-called self-pacing feature which did not require or encourage regular class attendance. Students absent from the posttesting session could have contacted individually for testing, but the test environment would have differed substantially from the usual setting. The decision was made to maintain the same test situation for all subjects rather than vary it for the sake of increasing control group size.

Experimental and control groups of similar size were anticipated. The smaller control group was due to the fact that many students had concurrent enrollment both in social

foundations of education and human development and learning. These students were screened from the control group. Concurrent enrollment is discouraged by college policy (University of South Florida, 1973), but apparently was not implemented during this academic term.

Arrangements were made with instructors of the various sections of the courses comprising the experimental and control groups prior to the academic term in which testing occurred. Instructors of all available sections were cooperative.

Pretesting was done at the second class meeting by the author. The Personal Opinion Questionnaire which contains the Scale of Democratic Attitudes and the Dogmatism Scale was distributed alternately with the Personal Beliefs Inventory, Teacher Practices Inventory and Value Ranking Test. These latter instruments were color coded with a gold instruction sheet. See Appendices A, B and C for these instruments. Alternate and, therefore, random distribution of these two packets of instruments to every other student in the classroom allowed a maximum amount of testing in a single class period.

Instructions were read to the students. Before allowing the students to complete the IBM 555 answer sheet, a verbal reminder was given that the activity was to be done anonymously, results were to be held in confidence and had no impact on course grades. Students were urged to participate honestly and sincerely.

Posttesting was done at the next to last class meeting by the author. Students who completed one packet of instruments on pretesting were given the other packet for posttesting. This was done by using the last four digits of the student's social security number and birthdate supplied on pretest answer sheets. This information was transferred to the desired test packet and distributed for posttesting to the appropriate student.

The study investigated the influence of age, sex, social class and university grade point average. The answer sheets required students to enter the last four digits of their social security number, birthday, sex and occupation of adult head of household. Age to the nearest year was obtained from birthdate. A measure of social class (SES) was obtained from occupation of adult head of household using Duncan's Socioeconomic Index for all Occupations (Reiss, 1961). Duncan's Index was selected because of its essentially continuous measures with scores ranging from 0 to 96. The index was appealing in a practical sense in that it was suspected that subjects would be more willing and able to give accurate information on occupation rather than on income or education. The major elements of the index were reported to be correlated to the extent of .91 with prestige ratings of education and income. It was further reported that the index had "a high order of temporal stability" (Blau and Duncan, 1967, pp. 120-21).

Acquiring university grade point average (GPA) was indirect and more involved. Direct solicitation of this information from students was not done because of possible inaccuracy. Class rolls were obtained from the university registrar. A current listing of university grade point average for all students was obtained similarly and was matched with the names on the class rolls. This information was then entered on the answer sheets by matching the last four digits of the social security number with the student's complete social security number on the class roll.

Specific information regarding the characteristics of the students who participated in the study is found in Tables 1 through 4. Tables 1 and 2 contain information about students on whom complete data were available. Mean values on age, social class, university grade point average and sex are given. A mean value for sex is possible because males were dummy coded 1 and females were dummy coded 0. The number of males and females are also given as is conventional.

Tables 3 and 4 contain information on all students who participated in the study to include those on whom incomplete data were available. On the pretest 46 students or 30.46 percent of the experimental group did not provide complete data. This compares to 33 students or 39.29 percent in the control group who failed to provide complete

Table 1  
 Characteristics of Students Taking the Personal Opinion  
 Questionnaire:  
 Complete Data

Characteristic <sup>a</sup>	Pretest		Posttest	
	Experimental n=52	Control n=30	Experimental n=55	Control n=18
Age	24.404	23.766	24.418	23.333
Sex	.212	.267	.164	.222
Male	11	8	9	4
Female	41	22	46	14
SES	48.500	46.333	52.673	56.889
GPA	3.023	2.937	3.054	2.774

<sup>a</sup>Values expressed as arithmetic means except male and female.

Table 2

Characteristics of Students Taking the Personal Beliefs Inventory and Teacher Practices Inventory: Complete Data

Characteristic <sup>a</sup>	Pretest		Posttest	
	Experimental n=53	Control n=21	Experimental n=48	Control n=19
Age	24.415	24.238	23.770	26.053
Sex	.151	.190	.167	.263
Male	8	4	7	5
Female	45	17	41	14
SES	53.887	59.143	50.145	52.421
GPA	2.992	3.042	3.063	2.970

<sup>a</sup>Values expressed as arithmetic means except male and female.

Table 3  
 Characteristics of Students Taking the Personal  
 Opinion Questionnaire

Characteristic <sup>a</sup>	Pretest		Posttest	
	Experimental n=74	Control n=43	Experimental n=70	Control n=28
Age	24.730	24.558	24.714	25.000
Sex	.230	.302	.214	.286
Male	17	13	15	8
Female	57	30	55	20
SES	52.675	47.837	52.700	50.928
GPA	2.998	2.919	3.055	2.818

Note. Subjects with complete and incomplete data.

<sup>a</sup>Values expressed as arithmetic means except male and female.

Table 4

Characteristics of Students Taking the Personal Beliefs  
Inventory and Teacher Practices Inventory

Characteristics <sup>a</sup>	Pretest		Posttest	
	Experimental n=77	Control n=41	Experimental n=70	Control n=26
Age	24.169	24.463	24.714	26.731
Sex	.234	.293	.243	.308
Male	19	12	16	8
Female	58	29	54	18
SES	53.649	56.073	49.900	53.808
GPA	3.026	2.976	3.002	2.970

Note. Subjects with complete and incomplete data.

<sup>a</sup>Values expressed as arithmetic means except male and female.

information. On the posttest 37 students or 26.43 percent of the experimental group was incomplete compared to 17 students or 31.48 percent of the control group. Mean values were substituted for missing data. This procedure is recognized by Travers (1969, p. 358) as a commonly suggested method for dealing with the problems of missing data. These values were obtained from students in the same group on whom complete data were available.

Student responses to the test instruments on the IBM 555 answer sheets were machine scored by the University of South Florida's Office of Evaluation Services. These scores and information on age, social class and university grade point average were entered on coding sheets. Also entered after dummy coding were sex, experimental or control group membership, pretest or posttest and an experimental pretest interaction variable. Coding sheets were then given to a professional card punch operator who punched and verified the data deck.

#### Instrumentation

##### The Scale of Democratic Attitudes (SDA)

Items used by Herbert McClosky in 1964 to measure the degree of consensus on democratic values exhibited by political influentials and the general electorate were the basis of the SDA. The items were grouped in the following

ways: items expressing "rules of the game," items expressing support for general statements of free speech and opinion, items expressing support for specific applications of free speech and procedural rights, items expressing belief in political equality, social and ethnic equality, and economic equality. The final form of the SDA was constructed by taking all items together. See Appendix A for the items used by McClosky. The six subscales of the SDA correspond to above groupings using those items supplied by McClosky. They are, respectively: The subscale of Procedural Agreements of Democracy (PAD), the subscale of General Statements on Freedom of Speech (GSFS), the subscale of Specific Application of Freedom of Speech and Procedural Rights (SAF), the subscale of Political Equality (PE), the subscale of Social and Ethnic Equality (SEE), and the subscale of Economic Equality (EE). See Appendix A for particular items.

The Likert technique was used in scaling with six levels of response: disagree very much, disagree on the whole, disagree a little, agree a little, agree on the whole, agree very much.

Validity of the McClosky items is indicated by the following:

While each of these items can stand alone and be regarded in its own right as an indicator of a person's opinions or attitudes, each of them is simultaneously an integral element of one of the 47 "scales" that was expressly fashioned to afford a more refined and reliable assessment of the attitude and personality predispositions

of every respondent. Each of the scales . . . has been independently validated either by empirical validation procedures employing appropriate criterion groups, or by a modified Guttman reproducibility procedure (supplemented, in some instances, by a "face validity" procedure utilizing item ratings by experts). (p. 364)

McClosky does not explicitly identify these 47 "scales" except to note their earlier use in 1957-58.

McClosky does not discuss reliability of his items directly. However, analysis using the Coefficient Alpha which is an internal consistency estimate of reliability yields the following: SDA = .9145, PAD = .7406, GSFS = .7974, SAF = .5812, PE = .7030, SEE = .8484, and EE = .7934 (Cronbach, 1951).

The items of the various scales in the final form of the SDA were randomly distributed and combined with the Rokeach Dogmatism Scale.

#### The Value Ranking Test (VRT)

The VRT is based on experimental work done by Rokeach on dissonance, behavior change and value change (1969, 1971). Rokeach asked subjects to rank 18 values according to their perceived importance. See Appendix B. After the subjects had completed their rankings, they were shown average rankings from another group of subjects. The difference between the ranking of freedom and equality was noted and discussed with the notion emphasized that those who ranked freedom and equality far apart were interested

only in freedom for themselves. This discussion was designed to produce dissonance or self-dissatisfaction with the subject's ranking. Additionally, subjects were asked to indicate their sympathy for the civil rights movement. Then they were shown data indicating a positive relationship between civil rights sympathy and a close ranking of freedom and equality. This also was done to induce dissonance. Subsequent measurement showed that experimental subjects produced closer rankings of freedom and equality; and more favorable attitudes toward civil rights than the control group. Additionally, experimental subjects were more inclined than the control group to respond favorably to solicitations to join the N.A.A.C.P. up to seventeen months after the initial dissonance producing sessions. Rokeach reports test-retest reliabilities for college students from .65 to .80 (1973).

The technique used by Rokeach to produce dissonance would seem to have very close similarity to the typical classroom situation where major cultural values are discussed, including the relationship between freedom and equality in a theoretical and problematical context. Considering Rokeach's findings, one could expect dissonance in the student and a subsequent reordering of values as well as behavior change. It is thought that the extent to which a course is successful in accomplishing these changes can be assessed by a change in rankings on the VRT.

### The Personal Beliefs Inventory (PBI).

The PBI was developed by Brown to determine a subject's agreement with the general philosophical beliefs of John Dewey. See Appendix C. Items were based on Dewey's writings and subjected to review by various judges and item analysis techniques. After five revisions a final inventory resulted with forms A and B. Brown reports combined forms reliabilities ranging from .55 to .78 (1968, p. 100). Similar forms reliability of .58 was reported when forms A and B were administered separately. Combined forms were administered in this study in hopes of greater reliability.

### The Teacher Practices Inventory (TPI)

The TPI was developed by Brown in the same manner as the PBI. The TPI is designed to assess agreement with teacher practices which are compatible with John Dewey's thinking. See Appendix C. Similar forms reliability of .69 was reported when forms A and B were administered separately. Combined forms reliability ranged from .56 to .94 (1968, p. 100). Combined forms were administered in this study.

### The Personal Opinion Questionnaire (POQ)

The POQ includes the Rokeach Dogmatism Scale. See Appendix A. Rokeach reports reliabilities of .68 to .93

(1960, p. 90). The well-known Dogmatism Scale measures the intensity with which one holds beliefs. Items on the Dogmatism Scale were randomly distributed with SDA items.

#### Statistical Methodology

The primary statistical method used in this study was stepwise multiple regression. This technique involves the construction of a regression equation that shows which independent variables are the most powerful predictors of the dependent variable. Furthermore, the stepwise technique not only shows the particular variables which are powerful predictors, but their desired order in the equation since order affects their predictive power. As each independent variable is added to the equation, starting with the one most highly correlated with the dependent variable, F tests are performed at each subsequent step to show the contribution of each variable already in the equation if it were to enter last. Therefore, it is possible to determine the optimum order of independent variables and to discard those which were initially, but no longer, good predictors (Kerlinger and Pedhazur, 1973, p. 290).

Multiple regression procedures are quite often used to construct nonexperimental predictive systems. However, multiple regression can be applied to experimental designs by dummy coding experimental and control group membership

as independent variables. The dummy coded categorical independent variables in this study were experimental or control group membership, whether dependent variable scores were pretest or posttest, whether dependent variable scores were experimental pretest or otherwise and sex.

Essentially continuous independent variables were age, social class and university grade point average. Dependent variables included scores on the Scale of Democratic Attitudes, its subscales, the Dogmatism Scale, the Personal Beliefs Inventory and the Teacher Practices Inventory.

Analysis of variance is a technique that is frequently used in an experimental design such as the one employed in this study. However, multiple regression offers several advantages. According to Kerlinger and Pedhazur (1973, p. 114), the technique is superior to analysis of variance when essentially continuous independent variables are involved. In analysis of variance such variables are typically treated as categorical variables when they are partitioned into high, medium and low groups. In partitioning a variable that may have a range of values, one can lose considerable variance (p. 8). Therefore, results of the study may be biased. Multiple regression is also said to be advantageous when cell frequencies are unequal and disproportionate as in this study. This condition is not unusual when the experimenter must deal with intact groups where random assignment of subjects to groups is not possible.

Experimental mortality also causes unequal n's as in the present study. The actual correlation of independent variables such as social class and university grade point average may also cause this to occur (pp. 7, 187). With unequal frequencies of treatment combinations the explanation of variance becomes ambiguous between treatment and interaction. Analysis of variance must handle unequal cell frequencies by artificial means while stepwise multiple regression deals with this problem through the use of semi-partial correlations and the varying of their position in the multiple regression equation. This allows the separation of treatment and main effects (pp. 187-193).

Stepwise multiple regression analysis was done using the BMDO2R program on the University of South Florida computer (Dixon, 1973).

Hypotheses 11 and 12 of this study deal with the significance of differences between coefficients of correlation. The technique used for these comparisons was Fisher's transformation to Z as recommended by Guilford and Fruchter (1973).

The level of confidence used in this study was  
p < .05.

CHAPTER IV  
RESULTS

The Scale of Democratic Attitudes

Stepwise multiple regression is used to test the operational null hypothesis: neither group membership nor time of testing are significant predictors of scores on the Scale of Democratic Attitudes (SDA). Scores on the SDA constitute the dependent variable. Dummy coded independent variables include: experimental or control group membership (EX/CON), pretest or posttest (PRE/PO), interaction between experimental group membership and pretest or otherwise (INTER), and sex (SEX). Continuous independent variables are age (AGE), university grade point average (GPA), and social class (SES).

The only independent variable entering the regression equation is GPA, using subjects on whom complete data are available. The observed  $F(1,153) = 6.8937$  exceeds the table  $F(1,150) = 3.91$  (Kerlinger and Pedhazur, 1973, pp. 512-515). The level of confidence used is  $p < .05$ . Therefore, GPA is a significant predictor of SDA. The

stepwise regression analysis is shown in Table 5. The table includes values for the coefficient of multiple correlation (R) and F for the multiple regression equation. Regression coefficients or beta weights are also given. By comparing the value of "F to remove" with the table F one can determine whether or not the contribution of the relevant variable is significant when it enters the equation last. If it is not significant, the variable is removed. Thus an initially good predictor which has lost its power can be removed. The variable with the highest "F to enter" among those variables not in the equation is entered if its contribution is significant. In the current situation only one variable made a significant contribution and the analysis is concluded in one step.

The results are not appreciably different when subjects with missing data are included. As noted in Chapter III, group means are substituted for missing data. GPA is the only independent variable in the regression equation. The observed F (1,213) = 8.1771 exceeds the table F (1,200) = 3.89. Therefore, GPA is a significant predictor of SDA. The stepwise regression analysis is shown in Table 6.

These results do not allow the rejection of the null hypothesis.

Table 5  
Stepwise Regression Analysis for the Scale  
of Democratic Attitudes Using Complete Data

Step	Variables in Equation					Variables Not in Equation				
	Variable Entered	Coefficient	R	df	F to Remove	Variable	Partial Correlation	df	F to Enter	
1	GPA	7.20882	.2076	1/153	6.894	6.8937	EX/CON	-.05470	1/152	.3637
						PRE/PO	.03736	1/152	.2111	
						INTER	-.01320	1/152	.0263	
						SEX	.10434	1/152	1.6620	
						SES	.04184	1/152	.2648	

Table 6

Stepwise Regression Analysis for the Scale  
of Democratic Attitudes Using Adjusted Data

Step	Variable Entered	Variables in Equation				Variables Not in Equation			
		Coefficient	R	<u>F</u>	<u>df</u>	P to Remove	Variable	Partial Correlation	<u>F</u> to Enter
1	GPA	.60762	.1923	1/213	8.177	8.1771	EX/CON	-.06422	1/212 .8779

The Subscale of Procedural Agreements of Democracy

The null hypothesis tested is: neither group membership nor time of testing are significant predictors of scores on the subscale of Procedural Agreements of Democracy (PAD). Using subjects on whom complete data are available, no independent variable entered the regression equation. Including subjects with means substituted for missing data, GPA is the only independent variable entered. The observed  $F(1,213) = 4.8863$  exceeds the table  $F(1,200) = 3.89$ . The regression analysis is shown in Table 7.

The null hypothesis cannot be rejected and is retained.

The Subscale of General Statements  
on Freedom of Speech

The null hypothesis tested is: neither group membership nor time of testing are significant predictors of scores on the subscale of General Statements on Freedom of Speech (GSFS). Using subjects on whom complete data are available no independent variable enters the regression equation. The same results are obtained including subjects with means substituted for missing data. The null hypothesis is retained.

Table 7  
Stepwise Regression Analysis for the Subscale of  
Procedural Agreements of Democracy Using Adjusted Data

Step	Variables in Equation			Variables Not in Equation					
	Variable Entered	Coefficient	R	<u>F</u>	<u>F</u> to Remove	Variable	Partial Correlation	<u>dF</u>	<u>F</u> to Enter
1	GPA	.28556	.1498	1/213	4.8863	4.8863	EX/CON	-.04116	1/212 .3598

PRE/PO	.01479	1/212	.0464
INTER	-.01790	1/212	.0679
AGE	-.07192	1/212	.1.1023
SEX	-.03897	1/212	.3224
SES	.06149	1/212	.8047

The Subscale of Specific Application of  
Freedom of Speech and Procedural Rights

The null hypothesis tested is: neither group membership nor time of testing are significant predictors of scores on the subscale of Specific Application of Freedom of Speech and Procedural Rights (SAF). The only independent variable entering the regression equation is GPA using subjects on whom complete data are available. The observed  $F$  (1,153) = 7.3105 exceeds the table  $F$  (1,150) = 3.91. GPA is a significant predictor of SAF. The regression analysis is shown in Table 8.

The results are not appreciably different when subjects with missing data are included. GPA is the only independent variable in the equation. The observed  $F$  (1,213) = 7.5053 exceeds the table  $F$  (1,200) = 3.89. The regression analysis is shown in Table 9.

The null hypothesis is retained.

The Subscale of Political Equality

The null hypothesis tested is: neither group membership nor time of testing are significant predictors of scores on the subscale of Political Equality (PE). GPA entered the regression equation as a significant predictor using subjects with complete data. The observed  $F$  (1,153) = 12.4545 exceeds the table  $F$  (1,150) = 3.91. The regression analysis is shown in Table 10.

Table 8

Stepwise Regression Analysis for the Subscale of Specific Application of Freedom of Speech and Procedural Rights Using Complete Data

Step	Variables in Equation					Variables Not in Equation				
	Variable Entered	Coefficient	R	<u>d</u> <u>f</u>	<u>F</u>	<u>F</u> to Remove	Variable	Partial Correlation	<u>d</u> <u>f</u>	<u>F</u> to Enter
1	GPA	1.95833	.2135	1/153	7.3105	7.3105	EX/CON	.03613	1/152	.1987
						PRE/PO		-.01487	1/152	.0336
						INTER		-.02623	1/152	.1046
						AGE		-.10423	1/152	1.6694
						SEX		.15150	1/152	3.5708
						SES		.01129	1/152	0.0194

Table 9

Stepwise Regression Analysis for the Subscale of Specific Application of Freedom of Speech and Procedural Rights Using Adjusted Data

Step	Variables in Equation				Variables Not in Equation					
	Variable Entered	Coefficient R	<u>df</u>	E	<u>F</u> to Remove	Variable	Partial Correlation	<u>df</u>	<u>F</u> to Enter	
1	GPA	.202607	.1845	1/213	7.5053	7.5053	EX/CON	- .02462	1/212	.1286
							PRE/PO	.02121	1/212	.0954
							INTER	-.01825	1/212	.0706
							AGE	-.08963	1/212	1.7168
							SEX	.04279	1/212	.3888
							SES	.03009	1/212	.1921

Table 10

Stepwise Regression Analysis for the Subscale of Political Equality  
Using Complete Date

Step	Variables In Equation				Variables Not in Equation				
	Variable Entered	Coefficient	R	<u>df</u>	F	<u>F</u> to Remove	Partial Correlation	<u>df</u>	F to Enter
1	GPA	1.95839	.2744	1/153	12.4545	12.4545	.EX/CON	1/152	.9899
							PRE/PO	.04415	1/152 .2968
							INTER	.000042	1/152 .0000
							AGE	.01513	1/152 .0348
							SEX	.10850	1/152 1.8108
							SES	.02841	1/152 1.1228

Similar results are obtained when subjects are included on whom incomplete data are available. GPA is the only significant predictor in the equation. The observed  $F$  (1,213) = 12.5797 exceeds the table  $F$  (1,200) = 3.89. The regression analysis is shown in Table 11.

The null hypothesis is retained.

#### The Subscale of Social and Ethnic Equality

The null hypothesis tested is: neither group membership nor time of testing are significant predictors of scores on the subscale of Social and Ethnic Equality (SEE). GPA and AGE entered and remained in the multiple regression equation as significant predictors using subjects with complete data. The observed  $F$  (2.152) = 6.632 exceeds the table  $F$  (2.150) = 3.06. The regression analysis is shown in Table 12. In the first step GPA enters the equation with an observed  $F$  (1,153) = 7.5570 which exceeds the table  $F$  (1,150) = 3.91. The variable with the highest significant  $F$  and highest partial correlation among those variables not in the equation enters next. AGE enters in the second step with an observed  $F$  (1,152) = 5.485 which exceeds the table  $F$  (1,150) = 3.91. Both GPA and AGE are entered last and an  $F$  test is performed to determine whether or not their contribution remains significant. The "F's to remove" for GPA and AGE are, respectively, 8.2971 and 5.4854. These  $F$ 's exceed the table  $F$  (1,150) =

Table 11

Stepwise Regression Analysis for the Subscale of  
Political Equality Using Adjusted Data

Step	Variables in Equation			Variables Not in Equation						
	Variable Entered	Coefficient	R	<u>d</u> <u>f</u>	F	<u>F</u> to Remove	Variable	Partial Correlation	<u>d</u> <u>f</u>	<u>F</u> to Enter
1	GPA	.91568	.2361	1/213	12.5797	12.5797	EX/CON	-.03706	1/212	.2915

Table 12

Stepwise Regression Analysis for the Subscale of Social and Ethnic Equality Using Complete Data

Variables in Equation						Variables Not in Equation				
Step	Variable Entered	Coefficient <i>B</i>	<u>df</u>	<u>F</u>	<u>F</u> to Remove	Variable	Partial Correlation	<u>df</u>	<u>F</u> to Enter	
1	GPA	1.66905	.2170	1/153	7.5570	EX/CON	-.08733	1/152	1.1682	
						PRE/PO	.04532	1/152	.3128	
						INTER	0.5149	1/152	.4041	
						AGE	-.18663	1/152	5.4854	
						SEX	.10881	1/152	1.8211	
						SES	.02376	1/152	.0859	
2	AGE	.2833	2/152	6.632		EX/CON	-.07953	1/151	.9611	
	GPA	1.72516	1/152		8.2971	PRE/PO	.04637	1/151	.3253	
	AGE	-.13335	1/152		5.4854	INTER	.04689	1/151	.3328	
						SEX	.12182	1/151	2.2744	
						SES	.03978	1/151	.2394	

3.91. No other variables could make significant contributions. The analysis is concluded in two steps. The regression coefficient for AGE is negative, indicating an inverse relationship with SEE.

Similar results are obtained using subjects on whom incomplete data are available. GPA and AGE are shown to be significant predictors of SEE. The regression analysis is shown in Table 13.

The null hypothesis is retained.

#### The Subscale of Economic Equality

The null hypothesis tested is: neither group membership nor time of testing are significant predictors of scores on the subscale of Economic Equality (EE). GPA and SES enter and remain in the equation as significant predictors using subjects with complete data. The observed  $F(2,152) = 5.537$  exceeds the table  $F(2,150) = 3.06$ . The regression of coefficients for both GPA and SES are negative which shows an inverse relationship between these variables and scores on EE. The regression analysis is shown in Table 14.

Using subjects with missing data GPA does not enter the equation. SES and AGE are shown to be significant predictors where the observed  $F(2,212) = 6.005$  exceeds the table  $F(2,200) = 3.04$ . The regression coefficients for both SES and AGE are negative indicating an

Table 13

**Stepwise Regression Analysis for the Subscale of Social and Ethnic Equality Using Adjusted Data**

Step	Variables in Equation					Variables Not in Equation				
	Variable Entered	Coefficient	R	<u>df</u>	E	<u>F</u> to Remove	Variable	Partial Correlation	<u>df</u>	<u>F</u> to Enter
1	GPA	1.60031	.1828	1/213	7.3609	7.3609	EX/CON	-.05871	1/212	.7334
						PRE/PO		.066630	1/212	.9359
						INTER		-.01447	1/212	.0444
						AGE		-.13623	1/212	4.0085
						SEX		.04623	1/212	.4541
						SES		-.03558	1/212	.2687
2	AGE	.2266	2/212	5.737			EX/CON	-.05978	1/211	.7567
	GPA	1.62981	1/212		7.7376	PRE/PO		.06569	1/211	.9143
	AGE	-.09913	1/212		4.0085	INTER		-.01395	1/211	.0411
						SEX		.05551	1/211	.6521
						SES		-.01903	1/211	.0764

Table 14

Stepwise Regression Analysis for the Subscale of Economic Equality  
Using Complete Data

Variables in Equation						Variables Not in Equation				
Step	Variable Entered	Coefficient	R	<u>df</u>	F	F to Remove	Variable	Partial Correlation	<u>df</u>	F to Enter
1	GPA	-1.22739	.1897	1/153	5.7092	5.7092	EX/CON	-.06281	1/152	.6020
							PRE/PO	.01647	1/152	.0413
							INTER	-.01995	1/152	.0605
							AGE	-.13636	1/152	2.8797
							SEX	.06451	1/152	.6351
							SES	-.18200	1/152	5.2071
2	SES	.2606	2/152	5.5337			EX/CON	-.06358	1/151	.6129
							PRE/PO	-.00852	1/151	.0110
	GPA	-1.16872	1/152		5.3052		INTER	-.02932	1/151	.1299
	SES	-.03439	1/152		5.3052		AGE	-.12402	1/151	2.3588
							SEX	.06027	1/151	.5505

inverse relationship. The regression analysis is shown in Table 15.

The null hypothesis is retained.

While experimental group membership and posttest are not shown to be significant predictors of SDA or any of its subscales, other variables are shown to be so. Multiple regression analysis provides for significance testing and a measure of meaningfulness through the coefficient of determination. The coefficient of determination ( $R^2$ ) measures the amount of variance in the dependent variable explained by the independent variable. Tables 16 and 17 report  $R^2$ 's and mean scores on the SDA and its subscales for experimental and control groups. These tables provide a summary of results obtained thus far. The variable most often significant is GPA. Its  $R^2$  values show that the proportion of variance explained by GPA range from 2.24 percent to 7.53 percent. While GPA is often significant, its  $R^2$  values do not point to any particularly meaningful conclusions. GPA, AGE and SES are not variables that are normally manipulatable.

Visual inspection of mean scores for experimental and control groups on pretests and posttests show their similarity. This indicates their lack of significance as predictor variables.

Table 15

Stepwise Regression Analysis for the Subscale of  
Economic Equality Using Adjusted Data

Step	Variables in Equation					Variables Not in Equation				
	Variable Entered	Coefficient	R	<u>F</u>	<u>df</u>	<u>F</u> to Remove	Variable	Partial Correlation	<u>df</u>	<u>F</u> to Enter
1	SES	-.03699	.1805	1/213	7.1696	7.1696	EX/CON	-.04490	1/212	.4282
							PRE/PO	.01142	1/212	.0276
							INTER	-.02836	1/212	.1706
							AGE	-.14751	1/212	4.7156
							SEX	.12328	1/121	3.2718
							GPA	-.12284	1/212	3.2480
2	AGE	.2315	2/212	6.005			EX/CON	-.04593	1/211	.4460
	SES	-.03324	1/212		5.7988		PRE/PO	.01155	1/211	.0282
	AGE	-.09447	1/212		4.7156		INTER	-.028317	1/211	.1676
							SEX	.13390	1/211	3.8524
							GPA	-.12151	1/211	3.1619

Table 16  
Coefficients of Determination and Group Means  
Using Complete Data

	$\bar{Y}$	$R^2$	Contributing Independent Variable	Mean Experimental Pretest	Mean Experimental Posttest	Mean Control Pretest	Mean Control Posttest
Dependent Variable	Coefficient of Determination		n=52	n=55	n=30	n=18	
SDA	.0431	GPA	197.50	196.29	199.13	196.90	
PAD	N.S.		53.58	53.00	53.33	53.50	
GSFS	N.S.		41.27	40.56	41.03	41.22	
SAF	.0456	GPA	40.54	41.36	40.83	39.11	
PE	.0753	GPA	19.31	18.91	19.67	19.39	
SEE	.0471	GPA	23.96	23.98	25.13	23.78	
	.0803	GPA, AGE					
EE	.0360	GPA	18.85	18.47	19.13	19.89	
	.0679	GPA, SES					

Table 17

Coefficients of Determination and Group Means  
Using Adjusted Data

<u>Y</u>	<u>R</u> <sup>2</sup>	Contributing Independent Variable	Mean Experimental Pretest	Mean Experimental Posttest	Mean Control Pretest	Mean Control Posttest
Dependent Variable	Coefficient of Determination	n=74	n=70	n=43	n=28	
SDA	.0370	GPA	195.35	193.91	197.47	195.11
PAD	.0224	GPA	52.68	52.50	53.09	52.89
GSFS	N.S.		41.12	40.31	41.07	41.64
SAF	.0340	GPA	39.85	40.10	40.49	39.25
PE	.0558	GPA	19.12	18.96	18.91	19.11
SEE	.0334	GPA	23.81	23.56	24.60	23.25
	.0513	GPA, AGE				
EE	.0326	SES	18.77	18.66	19.30	19.96
	.0536	SES, AGE				

The Dogmatism Scale

The same statistical procedures are used to analyze scores on the Dogmatism Scale (DOG) as on the SDA. The null hypothesis tested is: neither group membership nor time of testing are significant predictors of scores on the Dogmatism Scale. GPA and SEX are shown to be significant predictors using subjects with complete data. The observed  $F$  (2,152) = 10.451 exceeds the table  $F$  (2,150) = 3.06.  $R^2$  is .1209 with .0845 attributable to GPA. The regression analysis is shown in Table 18.

GPA is the only variable to enter the equation using subjects with missing data. The observed  $F$  (1,213) = 14.8681 exceeds the table  $F$  (1,200) = 3.89. The coefficient of determination is .0652. The regression analysis is presented in Table 19.

The null hypothesis is retained.

The Personal Beliefs Inventory

Stepwise multiple regression is used to analyze scores on the Personal Beliefs Inventory (PBI). The null hypothesis tested is: neither group membership nor time of testing are significant predictors of scores on the Personal Beliefs Inventory. No independent variables are significant using subjects with complete data. Using subjects with missing data, SES and SEX enter the equation.

Table 18

Stepwise Regression Analysis for the Dogmatism Scale  
Using Complete Data

Step	Variable Entered	Coefficient $\beta$	$\text{df}$	F	F to Remove	Variable	Partial Correlation	$\text{df}$	F to Enter
1	GPA	.10.96385	.2906	1/153	14.1159	14.1159	EX/CON	.03059	1/152 .1424
					PRE/PO		-.03450		1/152 .1811
					INTER		-.00636	1/152	.0061
					AGE		-.08727	1/152	1.1666
					SEX		-.19945	1/152	6.2970
					SES		.12623	1/152	2.4611
2	SEX	.3477	2/152	10.451		EX/CON	.04160	1/151	.2618
					PRE/PO		-.04926	1/151	.3673
	GPA	12.41245	1/152		17.9904				
	SEX	11.90564	1/152		6.2970	INTER	-.01216	1/151	.0223
					AGE		-.10087	1/151	1.5521
					SES		.13476	1/151	2.7931

Table 19

Stepwise Regression Analysis for the Dogmatism Scale  
Using Adjusted Data

Step	Variables in Equation						Variables Not in Equation				
	Variable Entered	Coefficient	R	df	F	F to Remove	Partial Variable	Correlation	df	F to Enter	
1	GPA	10.38111	.2554	1/213	14.8681	14.8681	EX/CON	.02180	1/212	.0008	
							PRE/PO	.01702	1/212	.0615	
							INTER	.03275	1/212	.2276	
							AGE	-.07144	1/212	1.0875	
							SEX	.04807	1/212	.4909	
							SES	.10145	1/212	2.2044	

The observed  $F$  (2,211) = 6.849 exceeds the table  $F$  (2,200) = 3.04.  $R^2$  is .0610. The regression analysis is shown in Table 20.

The null hypothesis is retained.

#### The Teacher Practices Inventory

Stepwise multiple regression is used to analyze scores on the Teacher Practices Inventory (TPI). The null hypothesis tested is: neither group membership nor time of testing are significant predictors of scores on the Teacher Practices Inventory. GPA, EX/CON and INTER enter the regression equation using subjects with complete data. The observed  $F$  (3,137) = 8.241 exceeds the table  $F$  (3,125) = 2.68. The coefficient of determination is .1529. The regression analysis is shown in Table 21.

Inspection of mean scores on the TPI shown in Table 22 might lead to the conclusion the experimental group scores are significantly greater than the control group scores. Caution would seem to be indicated by INTER's significant contribution. INTER shows a significant inverse relationship between experimental group membership and pre-test scores. Additionally, PRE/PO did not enter the equation. This would appear to be the result of control group scores. Finally, the small number of subjects involved may distort these results.

Table 20

Stepwise Regression Analysis for the Personal Beliefs Inventory  
Using Adjusted Data

Variables in Equation						Variables Not in Equation				
Step	Variable Entered	Coefficient	R	<u>df</u>	F	Remove	Variable	Partial Correlation	<u>df</u>	E to Enter
1	SES	.14553	.1933	1/212	8.2255	8.2255	EX/CON	-.05059	1/211	.5413
							PRE/PO	.02246	1/211	.1064
							INTER	-.04789	1/211	.4850
							AGE	.05182	1/211	.5681
							SEX	.15662	1/211	.5.3059
							GPA	.02617	1/211	.1446
2	SEX	.2469	2/211	6.849			EX/CON	-.04047	1/210	.3445
	SES	.15218	1/211				PRE/PO	.02313	1/210	.1124
	SEX	5.88170	1/211				INTER	-.04241	1/210	.3784
							AGE	.03624	1/210	.2762
							GPA	.04200	1/210	.3712

Table 21

## Stepwise Regression Analysis for the Teacher Practices Inventory Using Complete Data

Variables in Equation							Variables Not in Equation			
Step	Variable Entered	Coefficient	R	<u>df</u>	<u>F</u>	<u>F</u> to Remove	Variable	Partial Correlation	<u>df</u>	E to Enter
1	GPA	12.42695	.3139	1/139	15.1913	15.1913	EX/CON	.16568	1/138	3.8950
							PRE/PO	-.14725	1/138	3.0586
							INTER	-.07700	1/138	.8231
							AGE	-.06399	1/138	.5675
							SEX	-.04093	1/138	.2315
							SES	.03542	1/138	.1734
							PRE/PO	-.14933	1/137	3.1247
2	EX/CON	.3511	2/138	9.701	15.3053	INTER	-.18375	1/137	4.7872	
	GPA	12.34662	1/138							
	EX/CON	8.71632	1/138							
							AGE	-.05430	1/137	.4051
							SEX	-.02856	1/137	.1118
							SES	.04908	1/137	.3308
3	INTER	.3910	3/137	8.241	7.9247	AGE	.01184	1/136	.0191	
	EX/CON	14.06313	1/137							
	GPA	12.02446	1/137							
	INTER	-10.17821	1/137							
							SEX	-.03394	1/136	.1568
							SES	.06384	1/136	.5565

Table 22

Mean Scores on the Teacher Practices Inventory  
Using Complete Data

	Pretest	Posttest
Experimental	160.85 <u>n</u> =53	171.88 <u>n</u> =48
Control	158.05 <u>n</u> =21	156.16 <u>n</u> =19

GPA and PRE/PO enter the equation including subjects with means substituted for missing data. The observed  $F$  (2,211) = 8.241 exceeds the table  $F$  (2,200) = 3.04. The coefficient of determination is .0725. The regression analysis is shown in Table 23.

The null hypothesis is retained.

The Change in Relationship Between General Statements on Freedom of Speech and the Specific Application of Freedom of Speech and Procedural Rights

The change in correlation of scores on GSFS and SAF between experimental and control groups on pretests and posttests is explored. The study seeks to determine whether or not experimental group membership contributed to a significantly greater correlation between general

Table 23

Stepwise Regression Analysis for the Teachers Practices Inventory  
Using Adjusted Data

		Variables in Equation						Variables Not in Equation					
Step	Variable Entered	Coefficient	R	<u>dF</u>	<u>E</u>	<u>F</u> to Remove	Variable	Partial Correlation	<u>df</u>	<u>F</u> to Enter			
1	GPA	10.54768	.2237	1/212	11.1696	11.1696	EX/CON	-.12474	1/211	3.3352			
	PRE/PO						PRE/PO	-.15358	1/211	5.0871			
	INTER						INTER	-.09269	1/211	1.8283			
2	AGE						AGE	-.01945	1/211	.0799			
	SEX						SEX	-.07871	1/211	1.3153			
	SES						SES	.10446	1/211	2.3279			
	EX/CON						EX/CON	.11377	1/210	2.7540			
	INTER						INTER	.01533	1/210	.0494			
	SES						SES	-.08054	1/210	1.3710			
							SES	.11827	1/210	2.9793			

attitudes and more specific attitudes on the same subject. If so, such results might indicate that experimental group experience contributes to the integration of the student's valuational-attitudinal system. The null hypothesis tested is: there is no significant difference in the change in the correlation of scores on the subscale of General Statements on Freedom of Speech and the subscale of Specific Application of Freedom of Speech and Procedural Rights between the control group and the experimental group. Statistical procedures involve the calculation of correlation coefficients (r) of scores on GSFS and SAF. The data deck is divided into experimental group pretest, experimental group posttest, control group pretest and control group posttest. These groups are then subjected to stepwise multiple regression which produces the desired correlation matrix. Table 24 shows the results of this procedure using subjects with complete data.

Table 24

Correlation Coefficients of Scores on General Statements on Freedom of Speech and the Specific Application of Freedom of Speech and Procedural Rights Using Complete Data

	Pretest	Posttest
Experimental	$\bar{r}=.387$ $n=52$	$\bar{r}=.527$ $n=55$
Control	$\bar{r}=.580$ $n=30$	$\bar{r}=.405$ $n=18$

Fisher's transformation to Z is used to compare differences between r's (Guilford and Fruchter, 1973, pp. 166-67). This procedure involves the computation of the standard error of a difference between Fisher's Z's using the formula:

$$\sigma_{d_z} = \sqrt{\frac{1}{n_1-3} + \frac{1}{n_2-3}}$$

when n<sub>1</sub> and n<sub>2</sub> equal the number of subjects. Values of Fisher's Z's for particular r's are available in Guilford and Fruchter's Table H (p. 524). These Z coefficients are then entered in the formula:

$$\bar{Z} = \frac{Z_1 - Z_2}{\sigma_{d_z}}$$

Since the sampling distribution of Fisher's Z is normal, the sampling distribution of Z<sub>1</sub>-Z<sub>2</sub> is also normal. Z may be interpreted as a standard score. If the difference in Z's deviates from a difference of .0 to the extent of 1.96 $\sigma$ , then the difference is significant at the .05 level.

Experimental group pretest r is compared to control group pretest r.

$$\sigma_{d_z} = \sqrt{\frac{1}{52-3} + \frac{1}{30-3}} = .239$$

$$\bar{Z} = \frac{.662 - .408}{.239} = 1.063$$

Since the value of 1.063 is less than  $1.96\sigma$ , a null hypothesis of no difference between r's is retained.

Control group pretest r is compared to control group posttest r.

$$\sigma_{d_z} = \sqrt{\frac{1}{30-3} + \frac{1}{18-3}} = .322$$

$$\bar{z} = \frac{.662 - .430}{.322} = .720$$

Since the value of .720 is less than  $1.96\sigma$ , a null hypothesis of no difference between r's is retained.

Experimental pretest r is compared to experimental posttest r.

$$\sigma_{d_z} = \sqrt{\frac{1}{52-3} + \frac{1}{55-3}} = .197$$

$$\bar{z} = \frac{.586 - .408}{.197} = .904$$

Since the value .904 is less than  $1.96\sigma$ , a null hypothesis of no difference between r's is retained.

Experimental posttest r is compared to control post-test r.

$$\sigma_{d_z} = \sqrt{\frac{1}{55-3} + \frac{1}{18-3}} = .293$$

$$\bar{z} = \frac{.586 - .430}{.293} = .532$$

Since the value .532 is less than  $1.96\sigma$ , a null hypothesis of no difference between  $r$ 's is retained.

Comparisons are also done using subjects with means substituted for missing data. Table 25 shows the coefficients of correlation for these subjects.

Table 25

Correlation Coefficients of Scores on General Statements on Freedom of Speech and the Specific Application of Freedom of Speech and Procedural Rights Using Adjusted Data

	Pretest	Posttest
Experimental	$r=.364$ $n=74$	$r=.507$ $n=70$
Control	$r=.580$ $n=43$	$r=.354$ $n=28$

Experimental group pretest  $r$  is compared to control group pretest  $r$ .

$$\sigma_{d_z} = \sqrt{\frac{1}{74-3} + \frac{1}{43-3}} = .197$$

$$\bar{z} = \frac{.752 - .382}{.197} = 1.878$$

Since the value of 1.878 is less than  $1.96\sigma$ , a null hypothesis of no difference between  $r$ 's is retained.

Control group pretest  $\bar{r}$  is compared to control group posttest  $\bar{r}$ .

$$\sigma_{d_z} = \sqrt{\frac{1}{43-3} + \frac{1}{28-3}} = .255$$

$$\bar{z} = \frac{.752 - .370}{.255} = 1.498$$

Since the value of 1.498 is less than  $1.96\sigma$ , a null hypothesis of no difference between  $\bar{r}$ 's is retained.

Experimental group pretest  $\bar{r}$  is compared to experimental group posttest  $\bar{r}$ .

$$\sigma_{d_z} = \sqrt{\frac{1}{74-3} + \frac{1}{70-3}} = .170$$

$$\bar{z} = \frac{.559 - .382}{.170} = 1.041$$

Since the value 1.041 is less than  $1.96\sigma$ , a null hypothesis of no difference between  $\bar{r}$ 's is retained.

Finally, experimental group posttest  $\bar{r}$  is compared to control group posttest  $\bar{r}$ .

$$\sigma_{d_z} = \sqrt{\frac{1}{70-3} + \frac{1}{28-3}} = .235$$

$$\bar{z} = \frac{.559 - .370}{.235} = .804$$

Since the value .804 is less than 1.96 , a null hypothesis of no difference between  $\bar{r}$ 's is retained.

The results of the above comparisons using both complete and adjusted data do not allow the rejection of the original null hypothesis.

The Change in Relationship Between Rankings of Freedom and Equality

The Value Ranking Test (VRT) is used to explore the correlation between rankings of freedom equality. The study seeks to determine whether or not experimental group membership contributed to a closer correlation between these two values. Such results would indicate that experimental group membership promoted the understanding of the relationship between major cultural values and the integration of the student's value system. The null hypothesis tested is: there is no significant difference in the change in the correlation of the ranking of freedom and the ranking of equality on the Value Ranking Test between the control group and the experimental group. The procedures used to explore the relationship between GSFS and SAF are used in this case also. Table 26 shows the correlation coefficients for subjects with complete data.

Fisher's transformation to  $\bar{z}$  is used to compare experimental group pretest  $\bar{r}$  with control group pretest  $\bar{r}$ .

Table 26  
Correlation Coefficients of Rankings of Freedom  
and Equality Using Complete Data

	Pretest	Posttest
Experimental	<u>r</u> = .306 <u>n</u> = 53	<u>r</u> = .518 <u>n</u> = 48
Control	<u>r</u> = -.131 <u>n</u> = 21	<u>r</u> = -.160 <u>n</u> = 19

$$\sigma_{d_z} = \sqrt{\frac{1}{53-3} + \frac{1}{21-3}} = .276$$

$$\bar{z} = \frac{.316 - (-.132)}{.276} = 1.623$$

Since the value 1.623 is less than  $1.96\sigma$ , a null hypothesis of no difference between r's is retained.

Control group pretest r is compared with control group posttest r.

$$\sigma_{d_z} = \sqrt{\frac{1}{21-3} + \frac{1}{19-3}} = .345$$

$$\bar{z} = \frac{-.161 - (-.132)}{.345} = .084$$

Since the value .084 is less than  $1.96\sigma$ , a null hypothesis of no difference between r's is retained.

Experimental group pretest r is compared to experimental group posttest r.

$$\sigma_{d_z} = \sqrt{\frac{1}{53-3} + \frac{1}{48-3}} = .205$$

$$\bar{z} = \frac{.574 - .316}{.205} = 1.259$$

Since the value 1.259 is less than  $1.96\sigma$ , a null hypothesis of no difference between r's is retained.

Experimental group posttest r is compared to control group posttest r.

$$\sigma_{d_z} = \sqrt{\frac{1}{48-3} + \frac{1}{19-3}} = .292$$

$$\bar{z} = \frac{.574 - (-.161)}{.292} = 2.517$$

Since the value of 2.517 is greater than  $1.96\sigma$ , a null hypothesis of no difference between posttest r's is rejected. These results would seem to allow the cautious rejection of the original null hypothesis. There is no significant difference between experimental and control group pretest r's while there is a significant difference between posttest r's. The rejection of the original null hypothesis could be done without reservation if there had been a significant difference between experimental pretest r and experimental post-test r.

The same relationships are explored using subjects with means substituted for missing data. Correlation coefficients are shown in Table 27.

Table 27

Correlation Coefficients of Rankings of Freedom and Equality Using Adjusted Data

	Pretest	Posttest
Experimental	<u>r</u> = .397 <u>n</u> = 77	<u>r</u> = .483 <u>n</u> = 70
Control	<u>r</u> = .288 <u>n</u> = 41	<u>r</u> = -.160 <u>n</u> = 26

Experimental group pretest r is compared to control group pretest r.

$$\sigma_{d_z} = \sqrt{\frac{1}{77-3} + \frac{1}{41-3}} = .200$$

$$\bar{z} = \frac{.420 - .297}{.200} = .615$$

Since the value .615 is less than  $1.96\sigma$ , a null hypothesis of no difference between r's is retained.

Control group pretest r is compared to control group posttest r.

$$\sigma_{d_z} = \sqrt{\frac{1}{41-3} + \frac{1}{26-3}} = .263$$

$$\bar{z} = \frac{.297 - (.161)}{.263} = 1.741$$

Since 1.741 is less than  $1.96\sigma$ , a null hypothesis of no difference between r's is retained.

Experimental group pretest r is compared to experimental group posttest r.

$$\sigma_{d_z} = \sqrt{\frac{1}{77-3} + \frac{1}{70-3}} = .170$$

$$\bar{z} = \frac{.527 - .420}{.170} = .629$$

Since the value .629 is less than  $1.96\sigma$ , a null hypothesis of no difference between r's is retained.

Experimental group posttest r is compared to control group posttest r.

$$\sigma_{d_z} = \sqrt{\frac{1}{70-3} + \frac{1}{26-3}} = .241$$

$$\bar{z} = \frac{.527 - (.161)}{.241} = 2.851$$

Since the value 2.851 is greater than  $1.96\sigma$ , a null hypothesis of no difference between posttest r's is rejected.

Since these results are the same as those obtained by using subjects with complete data, a cautious rejection of the original null hypothesis remains the only possibility.

CHAPTER V  
SUMMARY, CONCLUSIONS AND IMPLICATIONS

Summary

The Scale of Democratic Attitudes and Subscales

Neither group membership nor time of testing were significant predictors of scores on the Scale of Democratic Attitudes or any of its subscales. Therefore, hypotheses one through seven could not be rejected (see Chapter I). A more specific summary of results is available in Table 28 where significant independent variables (X) and coefficients of determination (R<sup>2</sup>) are shown. University grade point average (GPA) was most often significant. However, the amount of variance explained by this variable ranged from 2.24 percent to 7.53 percent.

The Dogmatism Scale

Rokeach's Dogmatism Scale was used to measure the extent to which a student's belief system was open to change. Neither group membership nor time of testing were significant predictors of scores on the Dogmatism Scale. Therefore, hypothesis number eight could not be rejected.

Table 28 shows that university grade point average and sex entered the equation as significant predictors.

#### The Personal Beliefs Inventory

Brown's Personal Beliefs Inventory was developed to determine a subject's agreement with the philosophic beliefs of John Dewey. It was used in this study to provide an assessment of the extent to which a subject was oriented in a rational, scientific fashion toward the world. Neither group membership nor time of testing were significant predictors of scores on the Personal Beliefs Inventory. Therefore, hypothesis number nine could not be rejected. Table 28 shows that social class and sex were significant predictors using adjusted data only.

#### The Teacher Practices Inventory

The results obtained did not allow the rejection of hypothesis number ten. Group membership (EX/CON) was shown to be a significant predictor using subjects with complete data. Time of testing was not significant while a significant inverse relationship was shown to exist between experimental group membership and pretesting (INTER). Using adjusted data, time of testing (PRE/PO) was significant while group membership was not.

Table 28  
Summary of Results

<u>Y</u>	Complete Data		Adjusted Data	
	<u>R</u> <sup>2</sup>	<u>X</u>	<u>R</u> <sup>2</sup>	<u>X</u>
SDA	.0431	GPA	.0370	GPA
PAD	N.S.		.0224	GPA
GSFS	N.S.		N.S.	
SAF	.0456	GPA	.0340	GPA
PE	.0753	GPA	.0558	GPA
SEE	.0803	GPA, AGE	.0513	GPA, AGE
EE	.0679	GPA <sup>a</sup> , SES <sup>a</sup>	.0536	SES <sup>a</sup> , AGE <sup>a</sup>
DOG	.1209	GPA, SEX	.0652	GPA
PBI	N.S.		.0610	SES, SEX
TPI	.1529	GPA, EX/CON, INTER <sup>a</sup>	.0725	GPA, PRE/ PO <sup>a</sup>

<sup>a</sup>Relationship is inverse.

The Relationship Between General Statements on Freedom of Speech and the Specific Application of Freedom of Speech and Procedural Rights

Correlation coefficients ( $r$ ) were calculated for scores on the Subscale of General Statements on Freedom of Speech and the Subscale of Specific Application of Freedom of Speech and Procedural Rights. Correlation coefficients of experimental and control groups were compared on pretests and posttests. These comparisons were made to determine whether or not experimental group treatment had any impact on a student's ability to correlate general statements with more specific ones. There were no significant differences between correlation coefficients using both complete and adjusted data. Therefore, hypothesis number eleven could not be rejected.

The Relationship Between Rankings of Freedom and Equality

Correlation coefficients were calculated for rankings of freedom and equality on the Value Ranking Test. Correlation coefficients of experimental and control groups were compared on pretests and posttests. These comparisons were made to determine whether or not experimental group treatment had any impact on a student's ability to relate the values of freedom and equality. Experimental and control group posttests  $r$ 's were significantly different. Experimental pretest and experimental posttest  $r$ 's were

not. The same results were obtained using both complete and adjusted data. These results allow a cautious rejection of hypothesis number twelve.

### Conclusions

The purpose of this research has been to assess the effect of an undergraduate social foundations of education course on selected student attitudes, values and beliefs. Since the results obtained did not allow the rejection of the null hypothesis except in the instance dealing with the relationship between freedom and equality, no general conclusions can be reached concerning the impact of such courses offered under the conditions of this study. From the standpoint of statistical convention and logic, failure to reject a null hypothesis does not provide evidence for its acceptance. It is retained for further testing.

This study explored the potential impact of variables which might influence a student's demonstration of democratic attitudes as measured by the SDA and its subscales. While the results of the study would not allow the rejection of the null hypothesis dealing with group membership and time of testing, other variables appeared to be influential. Table 28 shows that university grade point average was most often significant. This would indicate that students with a high grade point average are

more likely to demonstrate democratic attitudes than students with a low grade point average. An exception to this is found in the area of economic equality. GPA made a significant inverse contribution to scores on the subscale of Economic Equality (EE). This indicates that students with high grade point averages are less inclined to support economic equality. Social class (SES) also made a significant negative contribution to EE. Its contribution remained when using both complete and adjusted data, while GPA did not enter in the latter instance. This would indicate that the higher a student's social position the less likely he or she is to support economic equality. The student's age also showed significant inverse relationship to EE when using adjusted data. This would indicate that the older a student is, the less likely he or she is to support economic equality. However, age showed a significant positive relationship with scores on the Subscale of Social and Ethnic Equality. This would indicate that older students are more inclined to support social and ethnic equality.

The results of this study indicate that democratic attitudes are affected by university grade point average, social class and age. While these three variables are significant, their contribution may not be particularly meaningful for educational decision makers. Coefficients of determination values show that their combined contribution did not explain more than 8.03 percent of the variance in

test scores. Also the nature of these variables makes them virtually nonmanipulatable by policy makers and teachers.

The study explored variables which might affect the flexibility or openness of the student's belief system. The Dogmatism Scale (DOG) was used to measure this. As noted above neither group membership nor time of testing were significant variables. However, Table 28 shows that GPA was significant using both complete and adjusted data. This suggests that the higher a student's university grade point average the more likely he or she is to be rigid, closed, or inflexible in beliefs. Sex membership also made a significant contribution using complete data only. This indicates that male students are more likely to be dogmatic in their beliefs than female students. These variables combined explained no more than 12.09 percent of the variance in test scores.

Social class and sex were significant variables in explaining scores on the Personal Beliefs Inventory (PBI) using adjusted data. These findings indicate that students whose social class positions are higher and who are male are more likely to display a rational, scientific orientation than are students whose social class positions are low and who are female.

Neither group membership nor time of testing entered together as significant variables in explaining

Teacher Practices Inventory (TPI) scores. Group membership did enter by itself in the analysis using complete data as did time of testing in the analysis using adjusted data. These results along with a significant interaction between experimental group membership and pretesting did not provide evidence which would allow the rejection of the null hypothesis. However, university grade point average was shown to be a significant variable using both complete and adjusted data. This indicates that students with higher grade point averages are more likely to support experimentalist educational practices.

No conclusions are warranted with regard to experimental group membership and the integration of general and specific beliefs. The study was unable to reject the null hypothesis in its comparison of coefficients of correlation between General Statements on Freedom of Speech and Specific Application of Freedom of Speech and Procedural Rights.

The Value Ranking Test was used to examine the influence of experimental group membership on the student's ability to understand the relationship between the values of freedom and equality. The results noted above would seem to allow the cautious and tentative conclusion that the null hypothesis may be rejected. More confidence could be allowed if experimental pretest and posttest correlation coefficients were significantly different.

To recapitulate, the following conclusions would appear to be warranted by the results of this study:

1. Students with higher university grade point averages are more likely to demonstrate democratic attitudes than students with lower university grade point averages.
2. Students with higher university grade point averages are less likely to support economic equality than students with lower university grade point averages.
3. Students with a higher social class position are less likely to support economic equality than students with lower social class positions.
4. Older students are less likely to support economic equality than younger students.
5. Older students are more likely to support social and ethnic equality than younger students.
6. Students with higher university grade point averages are more likely to be dogmatic in their beliefs than students with lower university grade point averages.
7. Male students are more likely to be dogmatic in their beliefs than female students.
8. Students with a higher social class position are more likely to have a rational, scientific orientation than students with a lower social class position.
9. Male students are more likely to have a rational, scientific orientation than female students.

10. Students with higher university grade point averages are more likely to support the experimentalist educational practices than students with lower university grade point averages.
11. Students who have had an undergraduate social foundations of education course appear to have a greater understanding of the relationship between freedom and equality than students who have not had such a course.

The sample used in this study should qualify any conclusions that have been reached. It should be recalled that data used in the study were gathered from undergraduate courses in the College of Education at the University of South Florida at Tampa and St. Petersburg, Florida. Therefore, the external generalizability of any conclusion is limited.

Another qualification may be seen in the smaller size of the control group. As noted in Chapter III, the control group was smaller than anticipated due to a violation of enrollment policy and class absences during post-testing. During the academic term in which data were gathered, students were concurrently enrolled in experimental and control group classes. These students were screened from the control group, thereby reducing its size. Furthermore, the self-pacing feature of several control group classes meant that students were absent from the

posttesting session. In addition to this was the problem of missing data. A number of students failed to provide complete or intelligible demographic data. Mean values were used to adjust the data so that it could be used in the analysis. Several differences are apparent in Table 28 between the analysis of complete data and the analysis of adjusted data. This problem could have been reduced or eliminated if individual answer sheets had been checked when they were turned in to the investigator.

### Implications

The implications of those conclusions dealing with the influence of university grade point average, social class, and age on democratic attitudes are several. The results have suggested the conclusions that students with higher university grade point averages are more likely to demonstrate democratic attitudes in general with the exception of economic equality than students with lower grade point averages. Furthermore, the results suggest that students with a high social class position are less inclined to demonstrate support for economic equality than students from a lower social class position. The same inverse relationship is seen between age and economic equality. In order to explain these conclusions one might speculate that high achieving students are more cognitively aware of and personally accepting of democratic attitudes in general.

than their low achieving counterparts. However, just the reverse is suggested by their responses dealing with economic equality. These responses indicate that the students may be motivated primarily by narrow self-interest in this area. That is, higher status students, older students, and higher achieving students may perceive it to be in their interest to have a society where there is a measure of ongoing economic inequality. The higher status and older students may see this as a means to maintain their currently advantageous position, while the high achieving students may perceive greater personal opportunity and potential reward in such a society. Of course, the reverse would be so for low achieving and low status students. Since these students may have responded in terms of self-interest instead of an understanding and acceptance of the principles and concepts of a democratic society, educators may find it fruitful to invest more effort in exploring the economic implications of a democratic society with their students. Furthermore, future additional research might focus closely on the notion of economic equality since it appears to be controversial and able to discriminate among students.

Age was also notable in its relationship to the subscales on Social and Ethnic Equality. The results suggested that older students are more likely to support social and ethnic equality than younger students. This

could be understood to be a reflection of the older students having had more direct exposure to the civil rights reforms of the 1960's. As a result of this experience the older students may have become more sensitive and accepting of social and ethnic equality. This is highly speculative. A more conservative implication of these findings would be that younger students may continue to profit from educational experiences in this area.

High achieving and male students were found to be more dogmatic than low achieving and female students. From this it might be implied that the university tends to reward those students who are dogmatic and inflexible in their pursuit of success. It may also be noted that the sexual distinction may be a result of traditional culture definition of maleness. This same point may be made in reference to the conclusion that male students are more likely to have a rational scientific orientation than female students. It was also noted that students with a higher social class position were more likely to have a more rational, scientific orientation than lower class students. From this one might imply that both female and lower class students would benefit from education experiences which are designed to produce such an orientation.

It was indicated that high achieving students were more likely to support experimentalist educational practices than low-achieving students. This might suggest that

experimentalism was a major theme that all students had been exposed to in their course work.

An advantage of stepwise multiple regression as a statistical technique is that it not only provides a measure of significance, but it provides an indication of meaningfulness. The variables discussed above were all statistically significant. However, their meaningfulness as indicated by their coefficient of determination values ( $R^2$ ) ranged from .0224 to .1529. This means that the amount of variance in test scores explained by these variables ranged from 2.24 percent to 15.29 percent. This leaves a great deal of unexplained variance for which other variables must account. The contribution of university grade point average, social class, age and sex have been significant, but not great. This indicates that these variables ought to be included in this and future studies of this sort, but their importance should not be overemphasized.

The results of the study indicated that students in the experimental group had a significantly greater ability to relate the values of freedom and equality than did control group students. This conclusion was advanced as tentative. The results were not clearcut. That is, experimental group posttest  $r$  was significantly different from control group posttest  $r$  while experimental pretest and posttest  $r$ 's were not. These findings are even more

interesting in light of the failure to reject the null hypothesis when using other instruments of the Likert type. The significant results mentioned here were obtained using the Value Ranking Test which was discussed in Chapter III. Future research might be undertaken to explore the efficacy of such relatively simply ranking devices with the more complex Likert-type scales. Additionally, future research would seem to be indicated to clarify the ambiguity introduced in obtaining significance with the ranking device and the failure to reject the null when using the Likert scales. Clarity here is further complicated by reduced size of the control group as discussed above.

It is possible that the bulk of the measurement undertaken in this study dealt with the level of basic value in the individual subject which may not be susceptible to change in a typical undergraduate course. This suggests that future research might be undertaken to explore the potential impact of college courses on attitudes and beliefs that are related to specific issues and problems. For example, social foundations of education may indeed play a role in developing attitudes and beliefs about busing to promote racial integration of schools or other current educational issues. Issues such as busing are probable fare in these courses and may provide a valid benchmark for evaluation purposes. In addition, future studies might

address not only the content of specific attitudes and beliefs on educational issues, but the processes by which those attitudes and beliefs were formed. Such studies might explore whether or not considerations of logic and evidence were applied as well as the content of opinion regarding educational policy. This, of course, would involve the development of appropriate instruments and observation techniques.

This study sought to evaluate the influence of an undergraduate social foundations of education course as it is typically offered without regard to variation in instructors or techniques of teaching. Further investigation might be done to determine whether or not certain methods are more effective than others in promoting affective change in students. Also, in reference to procedure, it should be noted that the courses under study were all offered under the relatively brief quarter system. Future research might investigate whether or not a longer academic term is more effective in promoting change.

To reiterate, the major implications of this study are:

1. The independent variables of university grade point average, social class, age and sex should be included in studies of affective change in university students.
2. Future research should investigate the concept of economic equality.

3. Future research should investigate the relative efficacy of ranking devices and Likert-type scales.
4. Future research should investigate the impact of social foundations of education courses on attitudes and beliefs about specific educational issues.
5. Future research should investigate the impact of social foundations of education courses on the processes used in the formation of attitudes and beliefs.
6. Future research should investigate variations in methods and procedures used in social foundations of education courses and their relationship to affective change.

The results of this study do not permit a conclusive assessment of social foundations courses. Rather, the benefit of this study may be seen in its implications for future empirical research. Hopefully such studies will be done and will lead to the improvement of this vital field.

## **APPENDICES**

APPENDIX A  
THE PERSONAL OPINION QUESTIONNAIRE

The Personal Opinion Questionnaire contains randomly distributed items of the Scale of Democratic Attitudes with subscales and the Rokeach Dogmatism Scale.

Particular items are indicated below:

Scale of Democratic Attitudes (SDA). Composed of subscales below:

Procedural Agreements of Democracy (PAD): 3, 41, 35, 24, 16, 5, 84, 46, 54, 39, 72, 1.

General Statements on Freedom of Speech (GSFS): 9, 26, 23, 58, 13, 17, 74, 50.

Specific Application of Freedom of Speech and Procedural Rights (SAF): 63, 48, 65, 21, 60, 7, 83, 87, 4.

Political Equality (PE): 27, 79, 19, 52, 49.

Social and Ethnic Equality (SEE): 8, 66, 55, 62, 42.

Economic Equality (EE): 75, 30, 82, 82, 44.

Dogmatism Scale

20	61	29	78	6	71	59	56
77	25	47	36	34	81	69	80
31	33	73	70	38	14	12	53
68	28	45	40	43	15	10	22
64	11	57	37	2	67	18	76

Instructions for the Personal Opinion Questionnaire were as follows:

The Personal Opinion Questionnaire is part of a study which should increase our understanding of the students and courses in the College of Education. Your participation will be very helpful. Your responses will be held in the strictest confidence and will in no way affect your grade in this course.

The Personal Opinion Questionnaire involves personal and social questions. There are no "right" or "wrong" answers to any of these questions, in the sense that people have many different points of view about these questions. We want to know only what you yourself believe about such things.

PLEASE ANSWER EVERY ITEM. There are no time limits. However, do not spend a lot of time puzzling over responses to items which may give you pause. Your first or immediate reaction is what we want.

Turn to the next page and provide the requested information on the back of the answer sheet. Then complete the Personal Opinion Questionnaire by marking the answer sheet.

Your cooperation is sincerely appreciated. Thank you.

For each statement mark the answer sheet according to how much you agree or disagree with it. Please mark every one.

Mark 1, 2, 3, or 4, 5, 6, depending on how you feel in each case.

1: I AGREE VERY MUCH	4: I DISAGREE A LITTLE
2: I AGREE ON THE WHOLE	5: I DISAGREE ON THE WHOLE
3: I AGREE A LITTLE	6: I DISAGREE VERY MUCH

Specific items and their order were as follows:

1. The true American way of life is disappearing so fast that we may have to use force to save it.
2. A man who does not believe in some great cause has not really lived.
3. There are times when it almost seems better for the people to take the law into their own hands rather than wait for the machinery of government to act.
4. In dealing with dangerous enemies like the Communists, we can't afford to depend on the courts, the laws and their slow and unreliable methods.
5. Almost any unfairness or brutality may have to be justified when some great purpose is being carried out.
6. There are two kinds of people in this world: those who are for the truth and those who are against the truth.
7. If a person is convicted of a crime by illegal evidence, he should be set free and the evidence thrown out of court.
8. We have to teach children that all men are created equal but almost everyone knows that some are better than others.
9. People who hate our way of life should still have a chance to talk and be heard.
10. It is only natural that a person would have a much better acquaintance with ideas he believes in than with ideas he opposes.
11. A person who thinks primarily of his own happiness is beneath contempt.

12. In the long run the best way to live is to pick friends and associates whose tastes and beliefs are the same as one's own.
13. You can't really be sure whether an opinion is true or not unless people are free to argue against it.
14. Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.
15. In a discussion I often find it necessary to repeat myself several times to make sure I am being understood.
16. I don't mind a politician's methods if he manages to get the right things done.
17. Unless there is freedom for many points of view to be presented, there is little chance that the truth can ever be known.
18. Unfortunately, a good many people with whom I have discussed important social and moral problems don't really understand what's going on.
19. "Issues" and "arguments" are beyond the understanding of most voters.
20. There is so much to be done and so little time to do it in.
21. When the country is in great danger we might have to force people to testify against themselves even if it violates their rights.
22. It is only when a person devotes himself to an ideal or cause that life becomes meaningful.
23. I believe in free speech for all no matter what their views might be.
24. If congressional committees stuck strictly to the rules and gave every witness his rights, they would never succeed in exposing the many dangerous subversives they have turned up.

25. Most people just don't gave a "damn" for others.
26. No matter what a person's political beliefs are, he is entitled to the same legal rights and protections as anyone else.
27. The main trouble with democracy is that most people don't really know what's best for them.
28. The United States and Russia have just about nothing in common.
29. A group which tolerates too much difference of opinion among its own members cannot exist for long.
30. Every person should have a good house, even if the government has to build it for him.
31. To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.
32. The government ought to make sure that everyone has a good standard of living.
33. The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.
34. If a man is to accomplish his mission in life it is sometimes necessary to gamble "all or nothing at all."
35. We might as well make up our minds that in order to make the world better a lot of innocent people will have to suffer.
36. I'd like it if I could find someone who would tell me how to solve my personal problems.
37. In the history of mankind there have probably been just a handful of really great thinkers.
38. My blood boils whenever a person stubbornly refuses to admit he's wrong.
39. Very few politicians have clean records, so why get excited about the midslinging that sometimes goes on.

40. The main thing in life is for a person to want to do something important.
41. The majority has the right to abolish minorities if it wants to.
42. The trouble with letting certain minority groups into a nice neighborhood is that they gradually give it their own atmosphere.
43. There are a number of people I have come to hate because of the things they stand for.
44. There will always be poverty, so people might as well get used to the idea.
45. If given the chance I would do something of great benefit to the world.
46. People ought to be allowed to vote even if they can't do so intelligently.
47. Man on his own is a helpless and miserable creature.
48. A man oughtn't to be allowed to speak if he doesn't know what he's talking about.
49. It will always be necessary to have a few strong, able people actually running everything.
50. Freedom of conscience should mean freedom to be an atheist as well as freedom to worship in the church of one's choice.
51. Fundamentally, the world we live in is a pretty lonesome place.
52. Most people don't have enough sense to pick their own leaders wisely.
53. Most people just don't know what's good for them.
54. To bring about great changes for the benefit of mankind often requires cruelty and even ruthlessness.
55. Regardless of what some people say, there are certain races in the world that just won't mix with Americans.

56. The worst crime a person could commit is to attack publicly the people who believe in the same thing he does.
57. It is better to be a dead hero than to be a live coward.
58. Nobody has a right to tell another person what he should and should not read.
59. Once I get wound up in a heated discussion I just can't stop.
60. No matter what crime a person is accused of, he should never be convicted unless he has been given the right to face and question his accusers.
61. It is only natural for a person to be rather fearful of the future.
62. When it comes to the things that count most, all races are certainly not equal.
63. Freedom does not give anyone the right to teach foreign ideas in our schools.
64. In times like these it is often necessary to be more on guard against ideas put out by people or groups in one's own camp than by those in the opposing camp.
65. A book that contains wrong political views cannot be a good book and does not deserve to be published.
66. Just as is true of fine race horses, some breeds of people are just naturally better than others.
67. A person who gets enthusiastic about too many causes is likely to be a pretty "wishy-washy" sort of person.
68. The present is all too often full of unhappiness. It is only the future that counts.
69. In a heated discussion I generally become so absorbed in what I am going to say that I forget to listen to what the others are saying.
70. While I don't like to admit this even to myself, my secret ambition is to become a great man, like Einstein or Beethoven or Shakespeare.

71. It is often desirable to reserve judgment about what's going on until one has had a chance to hear the opinions of those one respects.
72. It is all right to get around the law if you don't actually break it.
73. When it comes to differences of opinion in religion we must be careful not to compromise with those who believe differently from the way we do.
74. I would not trust any person or group to decide what opinions can be freely expressed and what must be silenced.
75. Labor does not get its fair share of what it produces.
76. In times like these, a person must be pretty selfish if he considers primarily his own happiness.
77. Of all the different philosophies which exist in this world there is probably only one which is correct.
78. In this complicated world of ours the only way we can know what's going on is to rely on leaders or experts who can be trusted.
79. Few people really know what is in their own best interest in the long run.
80. Most of the ideas which get printed nowadays aren't worth the paper they are printed on.
81. Any person who hides behind the laws when he is questioned about his activities doesn't deserve much consideration.
82. I think the government should give a person work if he can't find another job.
83. If someone is suspected of treason or other serious crimes, he shouldn't be entitled to be let out on bail.
84. Politicians have to cut a few corners if they are going to get anywhere.

APPENDIX B  
THE VALUE RANKING TEST

Instructions: Below are 18 values listed in alphabetical order. Please rank each value from 1 to 18 according to its importance to you. A ranking of 1 would indicate the value most important to you.

- A COMFORTABLE LIFE (a prosperous life)
- AN EXCITING LIFE (a stimulating, active life)
- A SENSE OF ACCOMPLISHMENT (lasting contribution)
- A WORLD AT PEACE (free of war and conflict)
- A WORLD OF BEAUTY (beauty of nature and the arts)
- EQUALITY (brotherhood, equal opportunity for all)
- FAMILY SECURITY (taking care of loved ones)
- FREEDOM (independence, free choice)
- HAPPINESS (contentedness)
- INNER HARMONY (freedom from inner conflict)
- MATURE LOVE (sexual and spiritual intimacy)
- NATIONAL SECURITY (protection from attack)
- PLEASURE (an enjoyable, leisurely life)
- SALVATION (saved, eternal life)
- SELF-RESPECT (self-esteem)
- SOCIAL RECOGNITION (respect, admiration)

\_\_\_\_\_ TRUE FRIENDSHIP (close companionship)

\_\_\_\_\_ WISDOM (a mature understanding of life)

## APPENDIX C

### THE PERSONAL BELIEFS INVENTORY (PBI) AND THE TEACHER PRACTICES INVENTORY (TPI)

Instructions were as follows:

This questionnaire is part of a study which should increase our understanding of the students and courses in the College of Education. Your participation will be very helpful. Your responses will be held in the strictest confidence and will in no way affect your grade in this course.

This questionnaire has three sections: the Personal Beliefs Inventory involves basic philosophical questions, the Teacher Practices Inventory involves educational questions and the Value Ranking Test involves the relative importance of certain values. THERE ARE NO "RIGHT" OR "WRONG" ANSWERS TO ANY OF THESE QUESTIONS. People have legitimately different points of view about these questions. We want to know only what you yourself believe about such things.

ANSWER EVERY ITEM FOR ALL THREE SECTIONS. There are no time limits. However, do not spend a lot of time puzzling over responses to items which may give you pause. Your first or immediate reaction is what we want.

Turn to the next page and provide the requested information on the back of the answer sheet. Do the Personal Beliefs Inventory and the Teacher Practices Inventory on the answer sheet. The Value Ranking Test should be completed last by marking the test itself.

Your cooperation is sincerely appreciated. Thank you.

For each statement mark the answer sheet according to how much you agree or disagree with it. Please mark every one.

Mark 1, 2, 4 or 4, 5, 6, depending on how you feel in each case.

- |                         |                            |
|-------------------------|----------------------------|
| 1: I AGREE VERY MUCH    | 4: I DISAGREE A LITTLE     |
| 2: I AGREE ON THE WHOLE | 5: I DISAGREE ON THE WHOLE |
| 3: I AGREE A LITTLE     | 6. I DISAGREE VERY MUCH    |

Specific items on the Personal Beliefs Inventory and their order were as follows:

1. Change is a basic characteristic of nature, and man has some measures of control over this change by using his intelligence.
2. Knowledge is truth to be accepted, held and treasured for its own sake.
3. A statement of fact may be both true and untrue depending on the standpoints and conditions of the observations.
4. To know something is to know the inner nature of things, i.e., as they really are prior to investigation.
5. Man doesn't have a "spirit" which is separable from his body and the material world.

6. Questions of value and moral judgment ought to be open to experimentation and scientific inquiry.
7. All "truths" are relative.
8. Man gains knowledge by having things impressed upon his mind.
9. Truth exists ready-made somewhere; the task of the scholar is to find it.
10. Practice is subordinate to knowledge, merely a means to it.
11. Learning is an application of mental powers to things to be known.
12. Man's destiny is in the hands of a supernatural power.
13. The mind is group of "contents" which come from having certain material presented to it.
14. "Mind" is purely intellectual and cognitive; bodily activity is an irrelevant and intruding physical factor.
15. The ends and laws which should regulate human conduct have been determined by the superior intelligence of an ultimate Being.
16. Knowledge is the sum total of what is known, as that is handed down by books and learned men.
17. What something may be when totally independent of any observer or frame of reference is a scientifically meaningless question.
18. The mind is formed from without, as one molds and shapes a piece of clay.
19. Man's primitive impulses are neither good nor evil, but become one or the other according to the objects for which they are employed.
20. There is no spiritual realm which lies beyond man's experience in the natural world.

21. What is morally right and wrong ought to be decided on warranted evidence—the findings of empirical science.
22. Knowledge is the result of theoretical insight on the part of scholars.
23. There can be no final, absolute ends to which all men aspire.
24. The mind turns outward to truth; the emotions turn inward to considerations of personal advantage and loss.
25. The use of the scientific method can be extended to solve the problems of men in the area of values and moral judgments.
26. Man is capable of managing his own destiny in an understandable and predictable natural world.
27. The mind possesses faculties for remembering, imagining, reasoning, willing, and so forth, which are developed by exercise and discipline.
28. What is right and good at one time and place may not be right and good for all times and places.
29. You can never prove that any fact is unconditionally true.
30. The senses and muscles are merely external inlets and outlets of the mind.
31. Man's destiny is determined by circumstances of nature which are beyond his control.
32. Knowledge is artificial and ineffective in the degree in which it is merely presented as truth to be acquired and possessed for its own sake.
33. Man's choices are good only if they prove successful in helping him live with some degree of security and equilibrium in the world of nature.
34. Reaching a condition in which there were no more problems would be the ideal life.

35. In the absence of a moral code supported by absolute authority, bodily appetite and passion overpowers intelligence.
36. Questions of value and moral judgment ought to be open to experimentation.
37. Learning is the sum of impressions made on the mind as a result of presentation of the material to be known.
38. Nothing is or can be unchanging, absolutely certain.
39. The nature of a thing is determined by what it does, or can be used for; it is what it becomes with intelligent use.
40. Questions of values and morals should be taken out of their traditional supernatural setting and put in a naturalistic setting.

Specific items on the Teacher Practices Inventory and their order were as follows:

41. Gives students opportunity to select facts and information which they consider appropriate to the question.
42. Usually has all students working on the same page of the same book at the same time.
43. Makes students emphatically aware that they are here to study and learn.
44. Once work has begun, insists that students remain in their places and concentrate on the task at hand.
45. Asks the kind of questions that students should be able to answer if they have studied the lesson.
46. Makes a direct presentation of the subject matter to be covered.
47. Permits students to go ahead with plans based on foresight, observation, and consideration of several alternatives—even when sure their judgment is mistaken.

48. Makes "doing something" with a thing, rather than the thing itself, the center of students' attention.
49. Focuses attention on what the students do or say, rather than on what the teacher does or says.
50. Makes the acquisition of knowledge and skills the center of students' attention and effort.
51. Has students compare the value of alternative courses of action and pass judgment on their relative desirability.
52. When one student fails to answer a question, asks another student to supply the correct answer.
53. Encourages students to suggest what might be done—to make "hypothetical leaps" into the unknown or untested.
54. Encourages students to put their suggestions to a test with such remarks as "You'll never know unless you try it."
55. Tells students where to start and what to do to accomplish the task at hand.
56. Organizes learning around questions posed by the teacher or the textbook.
57. Faithfully follows a planned schedule in order to get in the number of minutes each week allotted to each subject in the curriculum.
58. Gives students a wide choice in how they answer questions.
59. Provides a model to show students exactly what their work should be like when it is finished.
60. Gives students a free rein in devising and inventing proposals for what might be done to clear up troublesome situations.
61. Engages students in dramatizations, music, art, and other creative activities.

62. Uses a set standard to judge the work of all students in the class.
63. Insists the students face up to the realities of unpleasant predicaments and plights they get themselves into.
64. Accepts material in the approved textbook as a reliable measure for the appropriateness of information brought in by students from other sources.
65. Lets students become involved in ugly or distressing aspects of subjects.
66. Frequently asks students to choose among several alternatives.
67. Sticks to questions which can be answered by looking in the textbook or other references readily available in the school.
68. Limits physical activities to the gym or the playground.
69. Asks students to work on their own problems, rather than something made a problem only for the purpose of conveying instruction in some school subject.
70. Gives students a chance to discover by experiencing actual effects whether their choice of this rather than that idea was a judicious one.
71. Urges students to put everyday things to uses which have not occurred to others.
72. Gives students a number of starting places and a number of different ways of getting at what is to be done.
73. Provides approximately the same materials for each student in the class.
74. Shows students the most economical and efficient way to get a job done, and expects them to do it pretty much that way.
75. Allows students to move freely about the room while engaged in purposeful activity.

76. Quickly tells students whether their answers are "right" or "wrong."
77. Calls for the undivided attention of the group and scolds those who so not respond.
78. Asks the students to help decide when questions have been satisfactorily answered.
79. Encourages students to adventure into "deep water," to tackle problems that appear to be "over their heads."
80. Motivates students to greater intellectual effort by rewarding them with grades, marks, prizes or privileges.

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### BIOGRAPHICAL SKETCH

Winston T. Bridges, Jr. was born January 9, 1941 at Jacksonville, Florida. In June, 1959 he graduated from Sarasota High School in Sarasota, Florida. From September, 1959 to June, 1963 he attended the University of Florida where he graduated with a Bachelor of Arts degree with a major in political science. From October, 1963 to August, 1965, he served as an enlisted infantryman in the United States Army. He returned to the University of Florida in September, 1965 to work toward a Master of Education degree which he received in August, 1966. During this time he worked as a graduate assistant in the Department of Foundations of Education.

In September, 1966 he joined the staff of Daytona Beach Community College as an instructor in the political and social sciences. He remained there until June, 1968 when he joined the staff of the University of South Florida for the summer quarter as an instructor in social foundations of education.

In September, 1968 he returned to the Graduate School at the University of Florida to work toward a Doctor of Philosophy degree in the Department of Foundations of Education.

From September, 1970 to the present time he has been employed as an Assistant Professor of Education by the University of South Florida, St. Petersburg campus. He teaches courses in the social and philosophical foundations of education.

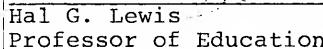
Winston T. Bridges, Jr. is married to the former Patricia Ann Pitz. He is a member of Phi Delta Kappa and Kappa Delta Pi.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



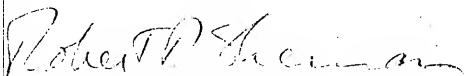
Vynce A. Hines, Chairman  
Professor of Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



Hal G. Lewis  
Professor of Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



Robert R. Sherman  
Associate Professor of  
Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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