

A LONGITUDINAL STUDY OF THE BELIEF SYSTEMS
OF ELEMENTARY TEACHERS TRAINED UNDER TWO DIFFERENT PROGRAMS

By

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A DISSERTATION PRESENTED TO THE GRADUATE COUNCIL OF
THE UNIVERSITY OF FLORIDA
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
DEGREE OF DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

1975



UNIVERSITY OF FLORIDA



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ACKNOWLEDGEMENTS

The author is deeply indebted to his chairman, Dr. John Newell, who is largely responsible for development of this dissertation. Dr. Newell provided the motivation and guidance, and took the time and effort to make the author a better educator.

The author is also indebted to Dr. Betty Siegel whose inspiration and psychological support was so great it is difficult to express not only in regard to this dissertation but also during his whole graduate career.

The assistance of the other members of the supervisory committee was indeed invaluable. For their warmth, empathy, and constructive suggestions, special appreciation is expressed to Dr. Joe Wittmer, Dr. Walt Busby, and especially to Dr. Hannelore Wass.

Appreciation is also extended to the following for their assistance: to Dr. William Ware, whose advisement on the design, computation, and analysis of data, was indeed helpful; to the members of the Foundations of Education Department, who provided the atmosphere for one to grow, discover and create; to Kati for her love, care and understanding, and to Weatherspoon Grier for his friendship,

both of whom made Gainesville a beautiful place to learn. Finally, special thanks to my parents to whom this work is dedicated. Without their constant support, a dream could not have been fulfilled.

TABLE OF CONTENTS

	<u>Page</u>
ACKNOWLEDGEMENTS	ii
ABSTRACT	vi
CHAPTERS	
I. INTRODUCTION	1
II. REVIEW OF RELATED LITERATURE	3
III. DESIGN AND PROCEDURE	39
Hypotheses to be Tested	39
Data	40
Sample	41
Instruments	43
Data Collection and Scoring	47
Testing Procedures	48
Statistical Design	48
IV. RESULTS AND ANALYSIS	50
Results	50
V. DISCUSSION	58
Limitations	72
Recommendations for Further Research	74

	<u>Page</u>
VI. SUMMARY	75
Related Literature	76
Design of the Study	77
Sample	78
Instruments	78
Testing Procedures	78
Statistical Design	79
Results, Discussion and Suggestions for Future Research	79
REFERENCES	82
BIOGRAPHICAL SKETCH	86

Abstract of Dissertation Presented to the Graduate Council
of the University of Florida in Partial Fulfillment
of the Requirements for the Degree of Doctor of Philosophy

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August, 1975

Chairman: Dr. John M. Newell
Major Department: Foundations of Education

This study dealt with the evaluation of two different teacher training programs. It examined the belief systems of elementary teachers at the University of Florida exposed to either the perceptual-humanistic Childhood Education Program (CEP) or the traditional elementary education program by their performance on three instruments designed to sample attitudes and beliefs.

CEP represents an alternative model to the traditional, behavioristically oriented classroom procedure found in many colleges and universities. The humanistic view of the development of a teacher, according to CEP followers, is a highly complex, ongoing process of learning or the personal discovery of meaning and of one's own best ways of professional functioning.

Perceptualists believe that teachers must make decisions concerning what and how to teach, and that these decisions are determined by their belief systems. Belief systems, in this study, were defined by the Personal Beliefs Inventory (PBI), the Teacher Practices Inventory (TPI), and Personal Opinion Questionnaire (POQ). These instruments are designed so that beliefs and attitudes are defined as being in a continuum of greater to less agreement with the experimentalist philosophy of John Dewey.

The review of related literature was undertaken with the intention of examining the theoretical positions of CEP, and its influence on the beliefs systems of elementary teachers.

Three hypotheses of this longitudinal design were formulated and tested:

1. There will be no significant differences in comparison of CEP to the traditional group on scores for the Personal Beliefs Inventory (PBI), Teacher Practices Inventory (TPI), and Personal Opinion Questionnaire (POQ).
2. There will be no significant differences between pre- and posttest scores for the PBI, TPI, and POQ for the CEP and the traditional groups.
3. For the CEP group, there will be no significant differences between scores on the PBI, TPI, and POQ for the three test times.

The two sample groups contained 25 subjects each. The subjects were elementary teachers tested at the pre-service and inservice levels. They were tested in 1969-70 while enrolled in either the CEP or traditional program at the University of Florida, and again three to four years later while employed in the public school system.

The three hypotheses were tested by a 2 x 2 repeated measures design and a 3 x 1 test over time design, both using an one-way analysis of variance and a test of simple effects, pre vs. post.

The results indicated that the exposure to the CEP program did indeed have an effect on the openness of the student's personal beliefs, but little evidence that this openness was reflected in actual teaching practices was seen.

It was found that the decline in the TPI scores with the nondecline in the PBI scores indicated that the theory practice dilemma had an effect on CEP-trained teachers as well as traditionally trained ones.

The results indicated that the effects of academic and teaching experiences had a stronger effect on teacher practices than personal beliefs with CEP subjects. This is due in part because personal beliefs do not appear to be nearly as amenable to change as educational beliefs.

Since these findings on the self-report data were not congruent with some of the findings of observational

research, it was suggested that research using observational data be used to verify the self-report data on teachers' belief systems. The major limitations of this study were that it was run on a small scale, and was restricted in the number of teachers and in its instrumentation.

CHAPTER I
INTRODUCTION

An area of investigation where "hard" data are needed concerns innovations in teacher education. According to Wass and Combs, "if we do not change teachers, it is highly unlikely that we can bring significant changes in our schools" (1973, p. 1). In an effort to bring about these changes, the Departments of Childhood Education and Foundations of Education, University of Florida, instituted a teacher preparation program which focused upon the self-concept of the teacher trainee. The Childhood Education Program (CEP) began in the winter of 1969 and developed into an ongoing program based on a perceptual-humanistic theory rather than a traditional behavioristic psychology where the teachers are responsible for presenting standard curriculum and students are evaluated according to a scale of relative performance.

It is Combs' belief that there has been a misplaced emphasis on the purely cognitive approaches to teacher education, and he proposed that ". . . teacher education is not a question of learning 'how to teach' but a matter of personal discovery, of learning how to use one's self and

surroundings to assist other persons to learn" (Wass et al., 1974, Preface). The humanistic view of the development of a teacher, according to Wass et al. is a highly complex, ongoing process of learning or the personal discovery of meaning and of one's own best ways of professional functioning. This theory was evaluated experimentally and compared with the existing traditional program. "It [CEP] represents an alternative model to the traditional, behavioristically oriented thinking currently in fashion in many colleges and state and federal agencies" (Preface).

The purpose of this study was to examine the performance of several students at the University of Florida exposed to either the Childhood Education Program (CEP) or the traditional elementary teacher preparation program on three instruments designed to sample attitudes and beliefs.

This dissertation, longitudinal in design, examined educational and personal beliefs of two defined groups of teachers, namely, those trained in CEP and those trained in the traditional program. These two groups of teachers were tested as students at the University of Florida and as inservice teachers. The attitude measures employed in this study were the Personal Beliefs Inventory (PBI), the Teacher Practices Inventory (TPI), and the Personal Opinion Questionnaire (POQ) (Brown, 1968).

CHAPTER II
REVIEW OF RELATED LITERATURE

To evaluate the overall effectiveness of teacher education programs, one needs to answer the question—what makes an effective teacher? While this question has been asked for years, no one has provided a viable solution. A study by the National Educational Association, where all of the research on good and poor teaching was reviewed, failed to find any method of teaching which was clearly superior to all others. "There is no method of teaching which can be clearly shown to be associated with either good or poor teaching" (Lindsey, 1961, p. 1). Combs states, "it is a notorious and maddening fact that despite three generations of careful research we are still unable to define good teaching in terms of any specific information or behavior which can be clearly shown to be always associated with either good or poor teaching" (Wass et al., 1974, p. 1).

Studies on specific methods or traits failed also to produce such answers because education continually followed the prescribed steps of an established method and continually imposed a general method for all alike (Wingo,

1960, Biddle and Ellena, 1964). According to Sarason et al., (1962) teachers handle children in the same way that they were handled in the course of their professional training.

In addition, a comprehensive review between 1950-1960 on teacher personality and characteristics, listing some 800 references, concluded: "despite the critical importance and half a century of prodigious research efforts, very little is known for certain about the relation between teacher personality and teaching effectiveness" (Getzels and Jackson, 1963, p. 212). According to Wass and Combs (1973) the main reason for this state of confusion is that teacher effectiveness has been studied often without reference to educational or psychological theory. The Committee on the Criteria of Teacher Effectiveness on the American Educational Research Association charged that research in this field is performed in a theoretical vacuum which leads to inadequate methodology and meaningless conclusions (Remmers, 1952).

At the same time, while people were examining the nature of effective teaching, psychologists were examining what makes an effective helping relationship, and they found a high degree of similarity. For example, Fiedler (1950) asked several psychotherapists from different schools of thought to describe the elements of an ideal therapeutic relationship. He concluded that experienced

therapists from different schools of psychological thought were in greater agreement about the nature of the helping relationship, than were beginning and expert therapists of the same psychological school. Apparently, no matter what the school of thought from which these psychotherapists began their work, as they became more experienced they recognized the helping relationship in highly similar terms. When Fiedler asked "the man on the street" to describe the nature of a good helping relationship, he found surprisingly that the ordinary citizen described it about as well as the experts.

The Fiedler study was the foundation for much of the early research performed a decade later by Combs and Soper on the helping relationship. Soper and Combs (1962) converted these same ideas to an educational setting by asking if the helping relationship as seen by good teachers would agree with the relationship as seen by expert psychotherapists in the Fiedler study. They administered Fiedler's helping relationship Q-sort to a group of expert classroom teachers from the faculty of the P.K. Yonge Laboratory School at the University of Florida, after modifying the Q-sort for educators. They found that good teachers agreed ($r=.809$) with the expert therapists about what constitutes a helping relationship.

Combs and Soper (1963a) next applied the composite Q-sort to 64 "very good" and 48 "very poor" teachers

selected by students and supervisors. Combs and Soper expected good teachers to know more about the nature of an ideal helping relationship than poor ones. However, they concluded that both groups could accurately describe the ideal helping relationship. There were no significant differences between the subject matter of the helping relationship for the two categories of teachers. Combs and Soper felt that the distinguishing factor was not what teachers know but whether they actually put this knowledge into practice.

Combs and Soper felt that the helper's system of beliefs might provide a more fruitful approach to understanding the differences between good and poor helpers. They first tested these ideas in "the Perceptual Organization of Effective and Ineffective Counselors" (1963b). From this study, Combs and Soper reported that there were clear perceptual differences between good and poor practitioners. They concluded that the helpers who are open to experience, have self-acceptance and empathy, and who therefore assist their clients in finding meaning and identity, can be described in terms of their perceptions in five major areas:

1. the general frame of reference from which the helper approaches the problem. Good helpers seem always concerned with how things look to the person with whom they are working while poor ones believe the important data are how things look to themselves. That is, good helpers seem

to be phenomenologically or perceptually, rather than behavioristically oriented.

2. the ways in which the helper perceived himself. Good teachers tend to see themselves in positive ways while poor ones see themselves in negative ways.
3. the ways in which the helper perceives other people. Good teachers tend to see other people in positive ways: friendly, able, trustworthy, etc., while poor teachers suffer doubts about the nature and capacity of the persons with whom they are working.
4. the ways in which the helper perceives the task with which he is confronted. The purposes of effective helpers tend to be freeing, opening and expanding, while their ineffective counterparts have narrowing, controlling, and directing goals.
5. the ways in which the helper perceives appropriate methods for carrying out his purposes. This is a personal matter dealing with the helper's discovery of the peculiar methods that he uses to accomplish his own and society's purposes. (Combs, 1965, p. 15)

Additional support comes from Rogers (1958), Rogers and Dymond (1959), and Homles (1968). They reported that the person who is effective in the helping relationship believes in himself and his theory, known as the "self as instrument" concept. The success of professional helpers will depend on how well they have learned to use themselves as effective instruments as helpers. This theory no matter what it is, from grassroots witchcraft to Rogerian client-centered therapy, will work as long as it is believed completely by the helper. Rogers stated that helpful relationships have different characteristics from

those that are unhelpful. These characteristics deal primarily with the attitudes of the helping person on the one hand, and with the perception of the relationship by the "helpee" on the other. Rogers and Dymond observed that it did not make much difference how the helper behaved if his "intent" was to be helpful. Homles indicated that although the helper could not explain the basis of his successful therapy, he continued to practice it, whatever it was.

These psychologists were unable to define the effective helping relationship on the basis of specific things which helpers do. If the results of these studies are correct, the key to effective teaching cannot be found in what the helper knows or in the method he uses. The key element is the "self as instrument" concept. By the "self as instrument" concept, Combs meant that the outstanding fact about the helping professions was the use of the helper's self in the process, "the peculiar way in which he is able to combine his knowledge and understanding with his own unique ways of putting it into operation, in such a fashion as to be helpful to others" (Combs et al., 1974, p. 8).

This idea originated from Combs (1969), who studied various helping professions including teaching, social work, counseling, pastoral care, nursing, and psychotherapy. "The common characteristic of all helping professions seems to be differentiated from more mechanical

operations in the immediacy of response required of the helper" (Wass et al., 1974, p. 1). Professional helpers must be thinking, problem-solving people; the primary tool of their work is themselves—knows as the "self as instrument" concept.

The findings of these earlier studies have since been corroborated in further studies on good and poor teachers at the University of Florida under the direction of Combs and at the University of Northern Colorado under the direction of Usher (Wass et al., 1974).

In the book, The Professional Education of Teachers: A Perceptual View of Teacher Education, Combs (1965) summarized perceptual psychology—the "third force psychology" as a great new humanistic force, a new psychology deeply concerned with people values, perceptions, and man's eternal search for being and becoming. He hailed it as the alternative to the Freudian and stimulus-response theories which dominated educational thought for years. With this in mind, Combs studied professional aspects of undergraduate, preservice teacher education through the ideas of perceptual psychology. Combs stated three basic principles of perceptual psychology which had far reaching implication for teacher education and became the guidelines for the Childhood Education Program (CEP).

1. All behavior of an individual is the direct result of his field of perception at the moment of his behaving.

2. The most important perceptions of an individual are those of himself. The self-concept is the most important single influence affecting an individual's behavior.
3. All individuals have a basic need for personal adequacy. We all behave in ways which will lead to our self-enhancement.

In the past, people examined the problem of the helping professions from an objective frame of reference in the manner traditional to external approaches in psychological investigation. In the Florida Studies in the Helping Professions, Combs (1969) approached the problem from a phenomenological orientation, analyzing it perceptually with those principles presented in 1965.

Combs concluded that one can distinguish good and poor helpers on the basis of their perceptions. He looked at the belief systems of the helper in order to discover the important difference between good and poor helpers. He stated that helpers can be distinguished from nonhelpers on the basis of their belief systems. Their characteristic ways of perceiving are:

1. an internal rather than an external frame of reference.
2. concern with people rather than things.
3. concern with perceptual meanings rather than facts and events.
4. an immediate rather than a historical view of cause of behavior. (Combs, 1969, p. 32)

Therefore, Combs proposed an educational setting with a psychosocial climate of perceptual psychology, one which has a perceptual curriculum which directs itself to such problems—the meaning, existence, value of one's life and the "self as instrument" concept. A perceptual curriculum is where:

1. people behave according to choices available at the moment of behavior.
2. learning has two aspects: a) acquiring new information and, b) discovering the personal meaning of that information which Brown (1968) recognizes as the definition of belief. Information is useless, only when individuals relate specific information to their lives are they able to use it.
3. it is more appropriate for people to learn a few concepts than many facts.
4. learning is more efficient if one first desires to know what is to be learned.
5. people learn and grow faster if they are not afraid to make mistakes.
6. teachers teach the way they have been taught not the way they have been taught to teach.
7. teaching is a freeing helping relationship rather than a controlled command relationship.

Because these findings suggest strongly the importance of a perceptual approach to teacher education programs, various members of the College of Education at the University of Florida decided to build a new Childhood Education Program (CEP) to accelerate change and narrow the gap between theory and practice. Instead of gradually modifying the existing traditional program, the faculty members developed the CEP program based on the research and theoretical position of Combs.

The four major principles underlying the organization of the new program (CEP) were:

1. One learns best when learning is made personally meaningful and relevant.
2. One learns best when learning is adjusted to the rate and need of the individual.
3. One learns best when there is a great deal of self-direction.
4. One learns best when there is a close relationship between theory and practice. (Avila et al., 1972, p. 149)

Traditional teacher education programs have been criticized because, ". . . contents and procedures of teacher education frequently have no demonstrable relevance to the actual teaching tasks" (Sarason, Davidson, and Blatt, 1962, p. viii). Combs felt that the traditional University of Florida professional elementary teacher preparation program has failed to provide the beginning teacher with the knowledge, theory, concepts and understanding of self, and these are what the beginning teacher really needs.

Whatever research defines as characteristic of good teachers also defines the objectives of teacher education programs. "With those objectives established the next question becomes: How shall a teacher education program be designed to produce teachers who perceive themselves as their tasks in such fashion" (Wass et al., 1974, p. 4). A series of basic assumptions was developed to serve as guidelines for an effective teacher education program. Since these assumptions formed the basis for the present CEP program under investigation each of these assumptions will be discussed in some detail.

- (1) The development of an effective teacher is a process of becoming.

Webb and Guinagh (1975) stated the key to any educational program is the quality of its faculty and the leadership it provides. The humanistic philosophy of the CEP program calls for a new type of teacher. According to CEP founders, "the purpose of teaching is service; its primary goal is the growth of self in the student, not the teacher" (Webb and Guinagh, 1975, p. 9). This is a goal often missed, particularly by traditional college teachers.

Perceptual educators see the "self as instrument" concept as a problem in becoming. Becoming a teacher is not a matter of learning how to teach, now will knowledge about good teaching insure superior performance. It is a personal discovery of learning how to use one's self well.

To lead students to such learning experiences, the CEP program has adopted an attitude towards teaching that is rare in traditional education programs. For the basic requisite of such a curriculum is a teacher,

with a questioning, probing, inquiring mind, one who sees the exploration of questions as far more important than the dispensing of information. It demands a teacher who has no firm and fixed answers and who thus expects none from the students, who lacks the courage of his convictions because he has few convictions and has learned instead to rely on the courage of his confusion, who is willing, indeed eager, to learn with and from the young people with whom he shares a classroom. (Daigon and LaConte, 1971, p. 55)

(2) The process of becoming must begin from a feeling of security and acceptance.

"Since feelings of self-acceptance and security are essential conditions for personal discovery, teacher education programs must begin from an acceptance of students where they are, followed by a maximum diet of success and a minimum experience of failure" (Wass et al., 1974, p. 5). For the future teacher to strive for self-actualization, first he must have basic physical and psychological security. In a humanistic-helping relationship educational environment, such as CEP, theoretically the student can find his identity, his worth, and gain insight and understanding of his own behavior. The perceptual educator understands that the teacher has the power to either hinder or promote the psychosocial growth

and development of the student. Maslow summed up this perceptual point beautifully,

Let people realize clearly that every time they threaten someone or humiliate or hurt unnecessarily or dominate or reject another human being, they become forces for the creation of psychopathology, even if these be small forces. Let them recognize that every man who is kind, helpful, decent, psychologically democratic, affectionate, and warm, is a psychotherapeutic force even though a small one. (Maslow, 1954, Preface).

This is the main reason why programs like CEP, created by Combs, are developed to teach, train, and facilitate teachers to elicit humanistic helping relationship environments in their future classrooms so growth towards self-actualization by the student can be accomplished.

(3) Teacher education programs must concentrate on personal meanings rather than behavior.

Behavior is only symptom; the causes of behavior lie in meanings, the person's perceptions and beliefs about himself and his world. The perceptual frame of reference attempts to understand behavior from the point of view of the behavior, himself, rather than viewing it as an external observer. To paraphrase Combs in Individual Behavior (1959), the true reality of the student lies in his perceptual field. Behavior is always in response to the reality as perceived by the individual. For behavior is a function of the perceptual field. Thus, "the crucial

question for teacher education is not which behavior to teach its students but how to bring about appropriate shifts in perception" (Wass et al., 1974, p. 7).

- (4) To deal effectively with meaning, teacher education programs must emphasize the subjective aspects of human experience.

If it is true that human behavior is a function of perception, the problem of behavior change must be recognized as fundamentally subjective, having to do with the person's belief system—his feelings, attitudes and beliefs.

The humanistic educator does not see the future teacher's behavior from without but rather tries to view him from within—from the student's own perceptual field. This is the only way of knowing, understanding, and gaining insight about the future teacher. The way a student defines his situation constitutes reality for him. Thus, the only reality a student can know is his own subjective experience.

- (5) An individualized program aimed at personal discovery and meaning calls for an open system of thinking.

Rousseau, (Dewey, 1916) some 200 years ago, had the magnificent insight to know what a curriculum, employing such subject matter techniques can do to the individual. "Each individual is born with a distinctive temperament . . . We indiscriminately employ children of different

bents on the same exercises; their education destroys the special bent and leaves a dull uniformity. Therefore, after we have wasted our efforts in stunting the true gifts of nature we see the short-lived and illusory brilliance we have substituted die away, while the natural abilities we have crushed do not revive." (Dewey, 1916, p. 116).

"The advantages of an open system of thinking extend beyond the fact that it is likely to result in more personalized and effective learning. In an open system the relationships between teachers and students are also likely to be much improved, for a problems approach makes teacher and student partners in a common project rather than separate or antagonistic participants" (Wass et al., 1974, p. 7).

CEP educators stated that they can no longer be held accountable for educating large masses of students by the assembly line process. From John Dewey, to Arthur Combs and Carl Rogers, it has been emphasized, over and over again, that we need to educate the future teacher in light of his own peculiar and unique needs. Carl Rogers contends in Freedom to Learn that a society's goals should be concerned primarily with the process of man 'Becoming,' achieving worth and dignity, being creative, self-actualizing. This calls for student centered teaching and a philosophy of teaching focused on self-discovered learning. The CEP program claims to have this.

- (6) The dynamic importance of need in learning must be fully exploited.

Learning is likely to be effective only in the degree to which material is related to the need of the learner. A teacher education program, therefore, must provide maximum adaptation to students' needs on the one hand and the creative discovery of new needs to know on the other. It is the CEP assumption according to Webb and Guinagh, that ideas remain inviting and educationally worthwhile only in the presence of a student's perceived need to know. Combs has said: "Psychologists do not know much about learning but one thing they do know: that people learn best when they have a need to know" (Wass et al., 1974, p. 6). The idea seems to be that unless a student perceives a need for the information being offered he will gain little from his classroom experience beyond ritualistically going through the paces. But once a need to know is established it is believed that "people do not need to be rewarded, cajoled or punished to deal with matters that affect them in important and immediate ways" (p. 6). Combs quoted Snygg as saying. "The trouble with American education is that we are all trying to provide students with answers to problems they haven't got yet" (p. 6.).

- (7) A program based upon effective discovery of personal meaning must actively seek for student involvement.

Since the person's self is his very own private possession it cannot be effectively changed without cooperation of the student.

Yet, the only way to center teaching on the individual student is to know a great deal about him and his perceptions. To recognize his uniqueness and give him the responsibility of his own behavior are also necessities for the perceptually orientated educator. The perceptual teacher relates to the student as if he "were an unique, living human being possessing uniquely human capacities and meaningful experiences; a being having feelings that are important; an individual striving toward goals; a being in process of being; dynamic and creative" (Combs, 1969, p. 11).

Still, teachers from all schools of educational psychology realize sooner or later that the student, himself, must make some decisions, he must learn to take some responsibility for himself and his behavior, but the theory and the technique of most nonoriented perceptual teachers, unfortunately, tends to be built on the opposite. The modern student in his class so often has the conviction that even if he did exert his will and capacity for decision, it would not make any difference.

Preparation for adequate teacher personalities of the future must be founded on the ability to function effectively in solving immediate problems and needs. Therefore, the importance of what Carl Rogers says about the

curriculum being in real contact with the relevant problems of the student's experience must be considered. Unfortunately, the subject matter taught today in schools, without a perceptual outlook, appears to many students as being unreal. It does not possess for the future teacher the kind of reality which the subject matter of their vital experiences possess.

"They learn not to expect that sort of reality of it. They become habituated to treating it as having reality for the purposes of recitations, lessons and examinations. That it should remain inert for the experiences of daily life is more or less of a matter of course" (Dewey, 1916, p. 161). He then would become a spectator in the educational process instead of the participant. The perceptual psychologist recognizes what many educators have not, that the student alone has the capacity to choose his behavior, hence shape his essence and establish the meaning of his own life. "Learning to be self directive can be a painful experience" (Wass et al., 1974, p. 9).

- (8) If the self-concept is as important a determiner of behavior as research suggests, teacher education must actively apply what is known about it.

Teacher education must produce teachers who see themselves in positive ways. Therefore, we need to improve educational practices and produce teachers with positive views of self. In light of this principle, a

curriculum should be developed where the subject matter presented takes into consideration the student's point of view. CEP education must deal with the whole phenomenal field of the student, in order to change his perceptions of himself (his self-concept) as well as his perceptions of the environment. If the student sees himself as worthless, having no identity, that is the role he will play. And the opposite is also true, if he sees himself as having worth, being able and having an identity, this is the role he will play. So the humanistic educator attempts to lead the future teacher to a path of self-actualization and on a course that some day will end in self-identity and a fully functioning person.

- (9) Since methods of teaching are personal ways of using self, they cannot be given; they must be discovered.

"This calls for the cafeteria approach to methods in which students are given wide opportunities to confront all kinds of possible methods and are encouraged and assisted to try out and modify teaching techniques to fit the peculiar combination of characteristic of self, students, surroundings in which they may find themselves" (Wass et al., 1974, p. 9).

The future teacher's perceptual field and his perceptual organization are being recognized in the total process of education as being just as important or even

more important that his intellectual mind and those organized bodies of information and skills known as knowledge. The student has faults, limitations, yet he also has creativeness, self-expression, capacities and most important potential—growth potential. This growth potential as seen in Bruner and Dewey's states of immaturity, can be realized in the right educational environment. The perceptual educator understands what Dewey (1916) meant when he said, "while a careful study of the native aptitudes and deficiencies of an individual is always a preliminary necessity, the subsequent and important step is to furnish an environment which will adequately function whatever activities are present . . . the educator is concerned with making the best use of what is there, putting it at work under the most favorable conditions" (1916, p. 74).

- (10) Since students come to teacher education programs from a wide variety of backgrounds and experience, professional education must allow for the widest possible flexibility for adjustment to such diverse needs.

"Teacher education programs which require all students to move through the same sequence of experience in the same time periods do violence to everything we know about the unique nature of persons" (Wass *et al.*, 1974, p. 9).

A program of maximum flexibility is needed because students come to the College of Education with varying

backgrounds, experience and widely divergent needs for help in becoming effective teachers. Teacher education programs must, therefore, contain maximum flexibility to adjust to such needs and permit wide variations in instructional programs and in rate of progress. CEP is designed in ways it is hoped will maximize the opportunity for students to ferret out relevant questions regarding education. "The student has the advantage of attending only the workshops he needs and has chosen, and this element of choice leads to more positive experiences on the part of both the instructor and the student. . . .

The importance of the student's right to choose his learning activity, according to Blume, cannot be overemphasized. When students choose to study a particular topic, they involve themselves more completely than they do when the task is assigned by the instructor" (Wass et al., pp. 9, 19).

- (11) Since people learn most effectively from their own experience, teacher education programs must demonstrate in their philosophy, practices, and human relationships a wide variety of models.

Beyond the traditional role of the teacher as bearer of information the CEP program demanded two other roles less frequently seen in the past.

One of these is the role of teacher as facilitator. It calls for teachers whose primary focus is on the creation of effective processes of learning, teachers who know how to

facilitate, help, aid, and assist students in a problems approach to education. The other role is the teacher as a consultant. This is the role demanded of teachers when students are actively engaged in the search for their own development or in the pursuit of their own special needs. (Wass et al., 1974, p. 10)

The role of a teacher as a facilitator and a consultant means that the traditional social distance between professors and students must somehow be broken down. Students would have to find professors more approachable, easier to communicate with and more aware of their needs than is found in the traditional program. Busby defines this type of teacher as one

who has learned how to use himself and his knowledge of children and subject matter to accomplish the purposes of schooling. The task of the college is not to teach right ways to teach; rather, it is to help the student discover his own best ways of operating in whatever school setting he may find. (Busby et al., 1974, p. 2)

For we know that

No teachers' college can make a teacher. The best it can do is provide students with problems, resources, information, and opportunities to explore what they mean. Beyond that the student is his own pilot and must find his own best ways of working. He must make a commitment to the process of learning. After all, the self is unlikely to change if it is not permitted to 'get in the act'. (Combs et al., 1974, p. 8)

In summary, as one of the basic tenets of Combs is that the development of an effective teacher is a process of becoming, then it may be said that the development of an effective teacher education program is a process of becoming.

These principles mentioned by Combs (Wass et al., 1974) are valid for humanistic education at any level according to Blume. He hoped that CEP could introduce them into elementary classrooms by preparing teachers in ways that are consistent with these principles. Education must include more than the acquisition of a few more facts and a faster reading rate. Blume stated that, "we must also help our young to develop compassion, concern for others, faith in themselves, the ability to think critically, the ability to love, the ability to cooperate with others, the ability to maintain good health, and above all, the ability to remain open to other people and new experiences. This is humanistic education!" (Blume, 1971, p. 411). Blume feels that whether students learn as much about teaching at the University of Florida in CEP as they would in a more traditional program will have to be determined by the research which is under way.

The question of whether or not attitudes, beliefs, and values are changed by exposure to a teacher education program has been raised by a number of researchers (Brown, 1968; Gallup, 1970).

In the light of the close relationship between behavior and beliefs, Combs (1969) discovered that studying the beliefs (highly meaningful perceptions) of the different helpers provided the knowledge to understand the helping relationships. Brown (1968) used this same premise

in studying teaching beliefs and practices in The Experimental Mind in Education. Brown states, "teachers behave according to the facts as they see them. What governs behavior of the individual are his unique perceptions of himself and the world in which he lives, the personal meaning things have for him" (Brown, 1968, p. 10). What a person perceives will be affected by what he already believes, and what he believes will be affected by all of the variables of the perceptual process in his perceptual field. Brown also states that for some perceptual psychologists the term belief is synonymous with "perception." But Brown defines "belief" as the evaluation of perception. He suggests that beliefs may be thought of as predispositions for action. But remember Brown views beliefs as some sort of evaluation of what is perceived.

Those people who see themselves as undesirable, worthless, or "bad" tend to act accordingly. Those who have a highly unrealistic concept of self tend to approach life and other people in unrealistic ways. Therefore, the individual's concept of himself has been demonstrated to be highly influential in much of his behavior. So Brown advocates that teacher preparation programs should attempt to help future teachers to bring their personal beliefs to a "conscious level"—value clarification if you will.

According to Brown, however, this "consistency" may be very hard to teach. "Failure to make the vital

connection between theory and practice is a glaring weakness in American education" (1968, p. 12).

Brown was concerned in The Experimental Mind in Education (1968), with the congruence or incongruence between what teachers believe and actually practice.

Brown indicated that decisions on what and how to teach by teachers are determined by certain fundamental principles. If these are incongruent, then the teacher is exhibiting what Brown calls the theory-practice dilemma. This is the discrepancy between what teachers say they know and believe in theory and how they teach or fail to teach in practice.

This theory-practice dilemma is evident when a teacher says that what he learned in college does not always work in actual teaching. Because, according to Brown, teachers in training are likely to discover a perplexing lack of agreement between the theory advocated by their professors of education and the practices demanded of them by the cooperating teachers selected by colleges of education to direct their student teaching experiences. What is reality in the college classroom is not always reality in the actual classroom!

So, what teachers believe and do about educational problems in the classroom depends to a considerable extent upon their fundamental beliefs about:

1. people and why they behave as they do,
2. reality, or the world in which people live,

3. knowledge, its nature and relationship to what people do. (Brown, 1968, p. 1)

Brown believes that teaching practices are based on these fundamental beliefs, whether the individual is conscious of them or not. In addition, these nonexperimental basic philosophic beliefs of the teacher often contradict his experimental educational beliefs. And when this contradiction occurs, the observed classroom practices of the teacher tends to be pulled in the direction of the underlying philosophic beliefs and often leads to behavior in the opposite direction from which the teacher says he wants to go.

In addition, Brown has stated that "examination of intercorrelations among specific items on the three measurements of experimentalism, (PBI, TPI, and the POQ) provided evidence that fundamental philosophic beliefs are more consistently related to teacher practices than are educational beliefs" (1968, p. 3).

One of the instruments used to measure the direction of the teachers' underlying philosophic belief system is the Personal Opinion Questionnaire, which is a variation of the Rokeach Dogmatic Scale. The primary purpose of the Rokeach Scale and the POQ is to measure individual differences in openness or closeness of belief systems.

Rokeach (1960) in his study of The Open and Closed Mind, according to Lindzey and Aronson (1968), stresses

the role of an enduring state of threat in creating the closed mind; his view of the origins of the closed mind is similar to their view of the origin of the authoritarian personality. Rokeach's central thesis is that we organize the world of ideas, people, and authority basically along the lines of belief congruence, liking those with similar beliefs and disliking those with dissimilar beliefs. There are individual differences in the absolute extent to which different people are willing to accept or reject others on this basis; these differences reflect the "structural openness" or "closeness" of the belief system.

A system is open to the extent that the person can receive, evaluate, and act on relevant information from the outside of its own intrinsic merits. Structurally the "closed mind" as compared with the open one, is characterized by less differentiation of its belief systems (particularly its disbelief systems), a narrower time perspective and more dependence on external authority for the specific content of the beliefs and disbeliefs.

It is assumed that the more closed the system, the more will the content of such beliefs be to the effect that we live alone, isolated, and helpless in a friendless world; that we live in a world wherein the future is uncertain that the self is fundamentally unworthy and inadequate to cope alone with this friendless world and that

the way to overcome such feelings is by a self-aggrandizing and self-righteous identification with a cause, a concern with power and status, and by a compulsive self-proselytization about the justness of such a cause.

The more closed the belief-disbelief system, the more will authority be seen as absolute, and the more will people be accepted and rejected because they agree or disagree with one's belief-disbelief system. Therefore, an open system is more in line with the theoretical positions of Dewey, Combs and the CEP.

In addition to the POQ, Brown, in an effort to measure both the degree to which an individual agrees with the theoretical position of Dewey and his experimental mind, developed the PBI and the TPI. Brown developed the Personal Beliefs Inventory (PBI) to measure basic philosophical or personal beliefs and the Teacher Practices Inventory (TPI) to measure educational beliefs, what a person believes is "good teaching." In the development of these instruments, Brown tested the gambit from future teachers to school administrators.

His findings indicated that the teacher's basic beliefs were not consistent with his educational beliefs. As a matter of fact, Brown reported that observed classroom practices are more consistent with a teacher's personal beliefs (PBI) than with his educational beliefs (TPI). Therefore, Brown concluded that the theory practice dilemma is alive and well.

Gallup (1970) reported basically the same results in a cross sectional study on the evaluation of the teacher training program at the University of Florida—the effects of academic preparation and/or teaching experience on the educational and philosophical beliefs of female elementary education teachers. His work was based on the work done by Brown (1969) in The Experimental Mind in Education.

Gallup's study used a cross-sectional design with four different groups of teachers, at the preservice level, using the PBI, TPI, and the POQ as attitude measures. The four groups were beginning students (BS), finishing students (FS), beginning teachers (BT), and experienced teachers (ET).

His findings indicated that the largest theory practice dilemma appeared with the finishing students. There was an increase in the beliefs of teaching practices from beginning students to finishing students but a decline from then on. As a matter of fact, the BS group's mean scores were higher than the ET group's mean scores on educational beliefs, while all the time the PBI scores declined from BS to ET, yet none were significantly different. The more teaching experience, the more the decline in the TPI mean scores. Therefore, academic and teaching experiences effect educational beliefs more than personal beliefs. These data follow the ideas laid down by Festinger (1957) and cognitive dissonance plus self-concept

theory—stable personal beliefs are a better indicator of behavior, and personal basic beliefs are less amendable to change.

Students ideas change on what is good teaching—become less like Dewey's beliefs with more teaching experience. All that is learned in school is wasted according to Brown. "Experienced teachers held about the same educational beliefs as the beginning student groups" (Gallup, 1970, p. 45). Therefore, observed classroom practices may be the same for both. If this is the case the teacher might teach according to beliefs obtained prior to the experience of a teacher education program or classroom teaching, then why have teacher preparation at all!

A possible explanation of the increase in educational beliefs with "academic experience" was made by Eson (1958). While reporting significant increases, he concluded that these increases in educational beliefs are a "result of learning the desired responses rather than a genuine change in attitude." Also, Brown and Gallup point out that the actual teacher loses the effect of reinforcement by grades and instructor's social approval to keep these educational beliefs. So therefore, public school teaching situations might not be reinforcing the same choices or beliefs the teacher education program did.

Gallup states, "in order to have an important effect on a prospective teacher's future classroom practices, the teacher training program needs to deal with the personal beliefs or basic philosophical assumptions of each student. A program which attempts this might better insure that educational experiences become personal and meaningful to the student" (Ibid.). So, while the personal beliefs of the traditional and the CEP students and teachers are probably the same, one who believes in the doctrine of the CEP will expect significant differences between the two groups in educational beliefs with the CEP students and teachers having more consistency. This study will attempt to determine this.

The results reported by both Gallup and Brown suggest that exposure to a teacher education program does indeed change reports of attitudes and beliefs. Since one of the major goals of the CEP program was also to change attitudes and beliefs, studies relating to this area are of importance to the present study.

Busby et al. (1974) compared a group of 51 CEP students to 64 traditionally trained students at the University of Florida. The instruments used to measure the differences between the two groups consisted of basically the same test used by Gallup (1970) and Brown (1968)—the PBI, TPI, and the POQ.

In general, the results indicated that the CEP appeared to be successful in producing a different kind of

teacher. This teacher seems to be more flexible and self-confident. The CEP student appears to have different perceptions about the nature of the educational process. He believes in an active problem centered, experimental classroom. He also sees motivation as primarily intrinsic rather extrinsic (Busby et al.). However, of the 29 measures Busby tested, these three measures were the only ones significant at the .05 level of confidence.

Later, Busby et al. (In Press) did a follow-up study to see what happened to these students as they attempted to put their educational beliefs and perceptions into practice. After the graduates had completed their first year of teaching, this study was conducted to determine if any significant differences existed between the two groups of graduates. Their sample consisted of 40 students from the traditional trained group and 35 from the CEP.

Two different instruments were used to collect data on the two groups. The first was the Florida Teacher Rating Scale (FTRS) which was developed by Busby et al. (In Press) for this study. This scale, which was answered by principals, consisted of a series of teacher effectiveness in ten different categories. Principals were asked to compare the graduates to the best and worst teachers they have known by placing a mark on a continuum for each category. The second instrument was a questionnaire completed

by the graduates themselves. It used the Guttman technique in which a series of statements representing a continuum are presented to the subject, and he chooses the one which most nearly represents his own beliefs.

The results of the comparison of the graduates on how they view their teacher education program were much like Brown's (1968) and Gallup's (1970). The graduates of the CEP program perceived their program to provide more adequate preparation for the teaching profession. They perceived themselves to be more confident, self-initiating and skillful in helping others grow. Like Gallup discovered, there was no significant differences in the educational beliefs of the finishing student and the beginning teacher. This data indicated that "academic experience" still had effect on the CEP beginning teacher though not that much difference from the traditional beginning teacher. The real question is what will happen with additional teacher experience—a decline like found in Brown and Gallup or will the perceptions of the CEP teacher truly become teaching practices?

Wass and Combs (1973) did a similar study except they used systematic observations of teacher behaviors in the classroom to test teaching practices. The following measures were used to carry out the teacher evaluations of the two groups:

1. Teacher Practices Observation Record (TPOR).
2. Reciprocal Category System (RCS), a modification of the Flanders System.
3. Perceptual Dimensions Scale (PDS).

The sample consisted of 35 CEP teachers and 30 teachers who had participated in the traditional program. The feedback research done on the experimental program sought to measure "the effectiveness of CEP teachers in the classroom" (Wass et al., 1974, p. 30). This research yielded generally positive results. The results indicated that the CEP teachers' practices were more in line with Dewey's experimentalism. The CEP teachers were also less teacher oriented, right answer oriented than the traditional group. In agreement with past Combian research, most of the comparisons from a strictly behavioral point of view showed no major differences. However, as Combs stated in the research of 1965 and 1969, comparisons examined from a perceptual orientation things appear differently. The CEP teachers were much more clearly differentiated with respect to their perceptions about themselves, about others, and with respect to the purposes they were attempting to carry out.

Finally, Webb and Guinagh (1975) did a study of the students' perceptions of the childhood education program. Rather than attempting an investigation into the validity of the theoretical assumptions upon which the CEP

was based, as did Busby, Wass and Combs, the Webb and Guinagh study attempted to investigate the degree to which this program in teacher preparation lived up to its theoretical assumptions. "This study differs from previous research in two ways: First, it is a descriptive study rather than a comparative evaluation, and second, it studies the program as it is viewed by students while they are immersed within it. In effect, this is an examination of how closely the program, as presently implemented, matches its own theoretical underpinnings" (Webb and Guinagh, 1975, p. 2). Using volunteer CEP students, Webb and Guinagh developed, after four revisions, a questionnaire on the CEP. This questionnaire was given in a group setting within selected seminars in the spring of 1974. The questionnaire was comprised of mostly questions which dissected the CEP into its component parts so that various elements of the program could be viewed individually, yet some questions were asked which pertained to the program as a whole. In all, 204 questionnaires collected anonymously were completed.

Webb and Guinagh reported that: only two out of three students believed they were getting a good education; four out of ten would prefer a more traditional program if teaching experience was included; over half felt that they were forced into nonmeaningful learning activities; and three out of five found it difficult to find and talk with the

faculty. However, they reported that the CEP had these advantages over the traditional program; three out of four found the seminars helpful, three out of five found that the CEP helped them with their self-concept, four out of five indicated never having to cheat, and four out of five believed the CEP helped them to learn to accept responsibility.

Overall, it is evident there are strengths as well as weaknesses in the CEP program. Webb and Guinagh's data, like the previous studies, give us no clear cut evidence as to which teacher preparation program is significantly better. What is needed is further research in this area so that some "hard data can be collected in order to make some positive assertions about teacher education.

Is the theory practice dilemma smaller in the CEP than in the traditionally trained teacher? Are the CEP teachers' basic philosophical beliefs consistent with their educational beliefs? The CEP follower would say, "yes!" But according to Hedges, "All is not well with the CEP" (Webb and Guinagh, 1975, Forward). The question arises as to whether the tremendous expenditure of energy and time in the CEP is justified by the results. Would a more traditional teacher education program be more efficient? This study is an attempt to begin the process of making such a determination.

CHAPTER III
DESIGN AND PROCEDURE

"An innovative program aims to offer something different and, hopefully, better than conventional programs; in other words, some of its purposes and objectives are at variance with traditional ones" (Wass et al., 1974, p. 32). The purpose of this study was to examine the difference between elementary teachers trained in the CEP program as compared to the traditional program of teacher preparation, as measured by the Personal Beliefs Inventory (PBI), the Teacher Practices Inventory (TPI), and the Personal Opinion Questionnaire (POQ). Changes on these three instruments were measured over time using the responses of the same subjects in the two groups.

Hypotheses to be Tested

Based on the conditions which characterize CEP teachers cited by Combs et al. (1974), the following questions may be raised. Using three measures of beliefs, are there differences in the scores for the two groups? Using measures of beliefs, are there changes over time as determined by repeated measures? Questions about group differences

are examined by the first hypothesis while questions about changes in beliefs over time are examined in hypothesis two and three. Stated in null form, the hypotheses for this study were:

1. There will be no significant differences in comparison of the CEP to the traditional group on scores for the Personal Beliefs Inventory (PBI), Teacher Practices Inventory (TPI), and Personal Opinion Questionnaire (POQ).
2. There will be no significant differences between pre- and posttest scores for the PBI, TPI, and POQ.
3. For the CEP group, there will be no significant differences between scores on the PBI, TPI, and POQ for the three test times.

Data

The data to be analyzed were collected from two data pools. The pretest information was gathered by Busby et al., 1974, who collected data from both students in the CEP and the existing traditional program. The CEP students were tested twice; first in the beginning of their senior year (CEP 1) and again after they had completed their field experience or internship (CEP 2). Unfortunately, the traditional group was only tested once, after they had completed their field experience or internship. The second

data pool is information collected by Wass. This posttest data was gathered by Wass on inservice teachers using the same subjects from both the CEP (CEP 3) and traditional groups and using three of the same measures employed by Busby et al. (1974), the PBI, TPI, and POQ.

Table 1
Test Times for CEP and Traditional Groups

	Senior Students	Internship	3-4 years In-Service Teachers
CEP	Busby (CEP I)	Busby (CEP II)	Wass (CEP III)
TRAD		Busby (Pre) X	Wass (Post) X

Sample

Busby et al. collected the predata in the Winter quarter of 1969 and the Fall Quarter of 1970. Ninety students were selected randomly from approximately 250 students entering the Child Education Program. As students graduated or dropped out, Busby randomly replaced them to maintain the original size of each seminar. The final experimental group (CEP) for Busby consisted of 51 out of 58 students. Seven students were not tested because they were not available or they refused to participate in the testing program.

The traditional trained subjects (the control group) for Busby consisted of 64 out of 86 students randomly selected from the total of 206 students enrolled in a senior seminar in the traditional program. Twenty-two students were either not available or refused to participate. Therefore, the original sample used by Busby consisted of 51 CEP students and 64 traditional students who had completed their field experience or internship and were in their "graduating" quarter when tested.

The postdata were collected by Wass and consisted of 65 students from the original Busby sample who were now (inservice) teachers. Thirty-five teachers who had graduated in 1970-1971, who participated in CEP and the Busby et al., study comprised the experimental group. The control group was comprised of 30 (inservice) teachers who had graduated in 1970-71, were also in the Busby et al., study but who had participated in the traditional program.

Since this a longitudinal study, it was necessary to identify subjects in both the CEP and traditional groups where complete data was available. Out of Busby and Wass' samples, a total of 50 subjects, 25 CEP and 25 traditional were identified and constituted the data sample for this study.

Instruments

From the battery of instruments used by both Busby and Wass, there were three common instruments which are employed in this study. There are:

Personal Beliefs Inventory
Teacher Practices Inventory
Personal Opinion Questionnaire

The Personal Beliefs Inventory (PBI), the Teacher Practices Inventory (TBI), and the Personal Opinion Questionnaire (POQ), were all instruments designed by Brown (1968) concerning the measurement of personal and educational beliefs and practices. "These scales were developed for the primary purpose of measuring individual differences in agreement or disagreement with John Dewey's philosophy" (Brown, 1968, p. 80).

Classroom practices are related to teacher's beliefs according to Brown (1968), Combs (1969), and others. What teachers do in a most general sense depends almost completely upon their beliefs about themselves, their actions and their students. "The behavior of a person is a result of what he believes about himself, what he believes about the situation in which he is involved, and the interaction of the two" (Brown, 1968, p.26).

"While the behavioral approach is most appropriate for assessing the possession of knowledge and skills, it is inappropriate for assessing perceptions simply because perceptions, beliefs, values—all matters of personal

meaning—lie inside persons and are not open to inspection. They require a more complex technique than simple behavioral measurement. They call for indirect measurement by inference" (Wass et al., 1974, p. 33). With this in mind, Brown developed these three beliefs and attitudes inventories, the Personal Beliefs Inventory (PBI), the Teachers Practices Inventory (TPI), and the Personal Opinion Questionnaire (POQ).

What teachers believe about basic philosophical questions (as measured by the PBI) is hypothesized to make a difference in how teachers instruct in the classroom (e.g., students as participants, not just spectators). The Personal Beliefs Inventory form used in the Busby (1974) and Wass studies was the fifth revision, subform A-B which is described by Brown, 1968, pp. 78-98).

What teachers believe about educational practices, what a person believes is good teaching (as measured by the TPI), is hypothesized to make a difference in how they actually teach in the classroom (e.g., direct rather than vicarious experience). The items in the Teacher Practices Inventory were grouped according to the seven categories in relation to the educational beliefs of John Dewey, and two categories in relation to the "evils of education" (the isolation of method of subject matter) as seen by John Dewey. The TPI form used in this study was also the fifth revision, subform A-B which is described by (Ibid). The

PBI and the TPI both have 40 items, take approximately 15 minutes to complete and were designed to measure the "experimental-mindedness" of a person.

The instrument used to measure the direction of the teachers' underlying philosophic belief system was the Personal Opinion Questionnaire (POQ). The POQ has 66 items and takes approximately 30 minutes to complete. The POQ is a variation of the Rokeach Dogmatic Scale (Form E-40) with the scoring categories reversed. The primary purpose of the Rokeach Dogmatic Scale and the Personal Opinion Questionnaire is to measure individual differences in openness or closeness of belief systems, what the general public thinks and feels about a number of important social and personal questions—to serve to measure general authoritarianism and general intolerance.

What teachers believe about a number of important social and personal questions (as measured by the POQ) is hypothesized to make a difference in how teachers instruct in the classroom (e.g. that teaching can make a difference). Therefore, Brown believes that knowing a future teacher's beliefs could lead to a good prediction of how he will behave in the classroom.

Brown reported that reliability data were collected on these three scales from 1961 to 1965 from populations including students in educational psychology, professors, supervisors, teachers and public school administrators who

participated in the student teaching program at the University of Wisconsin, Madison, Wisconsin.

Four types of reliabilities were computed: split-halves, test-retest, reliability of comparable forms and Hoyt Internal Consistency Reliability Coefficients. They ranged from .55 to .78 on the PBI and .56 to .94 for the TPI. Rokeach reported that the reliabilities on the Dogmatic Scale, of which the POQ is a variation, ranged from .68 to .93 with an average of .75. Brown stated that these reliability measures should be "considered quite satisfactory because a reliability score of .80 is usually demanded for tests of achievement or mental ability, but that measures of attitudes, personality or values are given more latitude" (Brown, 1968, p. 96).

Brown reported on developing content validity by using judges, who were members of the faculty at the University of Wisconsin, Madison campus, to decide which of the 272 statements given to them by Brown, were in agreement with Dewey, in disagreement, or did not relate. A statement were accepted if it were rated either inconsistent or consistent with Dewey by five out of six judges.

If the statement were accepted and it concerned basic philosophic beliefs with "the relationship of knowledge to action," then it became part of the Personal Beliefs Inventory. If the statement were accepted and it concerned "the relationship of subject matter to method,"

then it eventually became part of the Teacher Practices Inventory.

Data Collection and Scoring

All three inventories were administered together, the PBI first, then the TPI, and finally the POQ. For all instruments, the subject marked a number in the left hand margin according to how much he agreed or disagreed with each statement. The statements can be marked from "1" (agreed very much) to "6" (disagreed very much). A total score on the PBI and TPI was developed according to the scoring procedure described by Brown (1968, pp. 82-83). The higher the score the greater in agreement with "experimentalism" as reflected by Dewey's position, and greater in agreement with the theoretical positions of Combs and the CEP.

The total score on the POQ is, also, the sum of scores obtained on all items. However, the POQ in actuality is a reversal in scoring of the Rokeach Dogmatism Scale. The lowest score on the Rokeach scale is the most favorable. Brown reversed this procedure in order to match the scoring on the PBI and TPI. In other words, the higher the subject's score on the POQ, the more open and the more in agreement he is with the theoretical position of the CEP.

Testing Procedures

The initial research plan for this study included a pretest using students in the experimental program and in the traditional program. All students completed the three inventories concurrently. Each student was administered the three attitude measures in 1969-70 (Busby et al.), while enrolled in the College of Education at the University of Florida in either the experimental or the traditional program and again by Wass three to four years later, when they were inservice teachers. However, for CEP subjects only, additional data on the three measures were obtained in the beginning of the CEP students senior year.

Statistical Design

Formal assessment of outcomes typically follows a pretest-posttest design and uses a control group when possible. "The most common approach in educational research is to examine mean differences between pre-post measures in the experimental group preferably in comparison with a control group" (Wass et al., 1974, p. 36). Therefore, the null hypotheses were tested by a 2 x 2 repeated measures design using a one way analysis of variance (ANOVA) between mean differences for each sample group on each instrument. If a significant F ratio was obtained, then a test of

simple effects pre vs post was performed to detect statistically significant differences between means.

The second analysis was a 3 x 1 tests over time for the experimental group using a one way analysis of variance (ANOVA) between mean differences for each instrument.

The results of this study are considered in the next chapter. Discussion of the results follow.

CHAPTER IV
RESULTS AND ANALYSES

The statistical procedures used in this study were a 2×2 repeated measures design, a 3×1 test over time design both using a one way analysis of variance and a test of simple effects, pre vs post. Data analysis was done by the IBM 360 system, Model 65 at the University of Florida using the BIOMED program BMD08V (Dixon, 1971).

Since each of the hypotheses presented in Chapter III refer to the data from three different measures, the Personal Beliefs Inventory, the Teachers Practice Inventory, and the Personal Opinion Questionnaire, the analysis of each measure will be presented as it relates to each of the hypotheses.

Results

The first set of analyses focused on the pre-post differences on the PBI, the TPI, and the POQ. Hypothesis 1 deals with comparisons on each of these instruments between the CEP and the traditional group while hypothesis 2 focused on pre-post test differences for the three measures. Data from each of the three measures were analyzed

separately and the results of these analyses are presented in Tables 3-5. The means and standard deviations for each of the three measures are summarized in Table 2.

Table 2
Means and Standard Deviations for the CEP and
Traditional Groups on the Three Belief Instruments

		PBI		TPI		POQ	
		x	a	x	a	x	a
Exp.	Pre	159.32	14.93	198.56	16.38	164.80	19.289
	Post	159.24	17.54	190.88	21.01	168.16	12.87
Control	Pre	149.72	15.65	19.20	13.95	151.48	19.41
	Post	148.68	18.16	182.32	18.04	165.58	15.40

Hypothesis 1 states that there will be no significant differences in comparing the CEP to the traditional groups on scores for the PBI, the TPI, and the POQ. An examination of the F ratios presented in Tables 3-5 for groups indicates that only for the PBI was an F significant at the .05 level ($F = 518453$) found. The F ratios for groups for both the TPI and the POQ failed to reach the .05 level of significance. The first hypothesis for no significant differences between groups is rejected for the PBI but not for the TPI or the POQ. Hypothesis 2 states that there will be no significant differences between pre- and postscores for the PBI, the TPI, and the POQ. An examination of the F ratios presented in Tables 3-5 for pre vs

post indicates that only for the PBI was an F significant at the .05 level ($F > 1$) not found. The F ratios for pre-post testing for both the TPI ($F = 20.70$) and POQ ($F = 15.95$) were significant at the .05 level of significance. Therefore the second hypothesis of no significant differences between pre- and postscores is rejected for the TPI and POQ but not for the PBI.

Table 3
Analysis of Variance for the
Personal Beliefs Inventory

<u>Source</u>	<u>DF</u>	<u>SS</u>	<u>MS</u>	<u>F</u>
Groups	1	2540.16	2540.16	5.8453*
Pre-post	1	7.839	7.839	0.0664
Interaction	1	5.759	5.759	0.0488

Table 3 summarizes the analysis of the PBI scores. There were significant differences between the CEP and the traditional group for the PBI ($F = 5.8453$ sig. .05).

Table 2 presents the means and standard deviations for the two groups on the three instruments. The higher the score on the PBI, the greater the degree of "experimentalism." Examination of Table 2 indicates that the mean scores for the CEP group were approximately 10 points higher than the mean scores for the traditional group. It is of interest to note that this magnitude of difference occurred for both pre- and posttest means. On

the basis of higher scores being reflective of a greater degree of "experimentalism," the results of Tables 2 and 3 appear to lend support the position of Combs (1969).

The second hypothesis of no significant differences between pre- and posttesting is supported. ($F > 1$) Thus, for the PBI, the first hypothesis is rejected but the second hypothesis is not.

Table 4
Analysis of Variance for the
Teacher Practices Inventory

<u>Source</u>	<u>DF</u>	<u>SS</u>	<u>MS</u>	<u>F</u>
Groups	1	1428.84	1428.84	2.725
Pre-post	1	1883.56	1883.56	20.70*
Interactions	1	25.0024	25.0024	0.27

Table 4 summarizes the analysis of the TPI scores. The first hypothesis of no significant differences between groups is supported by a finding of a nonsignificant F ratio ($F = 2.7254$). The second hypothesis of no significant differences between pre-post testing is not supported ($F = 20.70$ sig. .01).

Additional analysis of hypothesis 2 using a test of main effects indicated that in both groups there were significant drops from pre to post, approximately 8 points for the CEP group and approximately ten points for the traditional group. This decrease in TPI scores for both groups

will be discussed in relation to the findings of Gallup in the discussion chapter.

Table 5
Analysis of Variance for the
Personal Opinion Questionnaire

<u>Source</u>	<u>DF</u>	<u>SS</u>	<u>MS</u>	<u>F</u>
Groups	1	1560.25	1560.25	2.944
Pre-post	1	1927.21	1927.21	15.95*
Interaction	1	734.40	734.40	6.078*

Table 5 summarizes the analysis of the POQ scores. Hypothesis 1 predicted that the experimental group would not score significantly higher than the control group on the POQ. Results in Tables 2 and 5 support this hypothesis, indicating the POQ scores differences were not statistically significant at the .05 level ($F = 2.944$).

Hypothesis 2 states that there will be no significant differences between pre post scores on the POQ. On the basis of data in Table 5, hypothesis 2 is rejected. When the factors were considered simultaneously there were significant differences between pre-post scores beyond the .01 level of confidence ($F = 15.95$) and in addition, the interaction between groups were significantly different beyond the .05 level ($F = 6.078$).

Again, the test for sample effects was made in order to consider each pre-post group individually. The small

increase of the CEP group pre to post on the POQ was not significant. However, significance was found in the 14 point increase from pre to post by the traditional group. This increase in the POQ scores for the traditional group will be discussed later in the discussion chapter.

Hypothesis 3 states that for the CEP group there will be no significant differences between scores on the PBI, TPI, and POQ for the three test times. The means and standard deviations for each of the three measures over time are presented in Table 6, and the summary of the analyses for each measure is presented in Table 7.

Table 6
Means and Standard Deviations for the CEP
Groups for Three Belief Inventories

	PBI		TPI		POQ	
	x	a	x	a	x	a
CEP 1	154.96	13.27	184.36	19.39	155.48	18.21
CEP 2	159.32	14.93	190.56	16.39	164.80	19.29
CEP 3	159.24	17.54	190.88	21.01	168.96	17.87

Table 7
Summary of Analysis of Variance for the
Three Belief Instruments for the CEP Group

<u>Source</u>	<u>DF</u>	<u>SS</u>	<u>MS</u>	<u>F</u>
Groups (PBI)	2	311.11	155.55	2.03
Groups (TDI)	2	2526.10	1263.05	8.72*
Groups (POQ)	2	2382.23	1191.16	11.26*

An examination of the F ratios presented in Table 7 for tests over time indicates that only for the PBI was an F significant at the .05 level ($F = 2.03$) not found. The F ratios for tests over time for both the TPI ($F = 8.72$) and POQ ($F = 11.26$) were significant at the .05 level of significance. Therefore the third hypothesis of no significant differences between scores over time is rejected for the TPI and POQ but not for the PBI.

On the basis of data in Table 6 on the PBI for hypothesis 3, the hypothesis is accepted. An examination of the data in Table 7 indicates that an F ratio significantly beyond the .05 level of confidence was not obtained ($F = 2.03$).

However, a close inspection of the mean scores in Table 6 indicates a slight but nonsignificant increase in the PBI scores of the CEP group from the beginning of their senior year scores (CEP 1) to their scores taken after their internship (CEP 2). Then there is a very slight decrease from test period two to test period three. However, it is of interest to note that the PBI scores for the CEP group remained stable over time, thus supporting the premises of Combs concerning the Childhood Education Program (CEP).

On the basis of the data in Table 7 on the TPI for hypothesis 3, the hypothesis is rejected. Examination of Table 7 indicates that a significant F ratio was obtained ($F = 8.72$, sig. .01).

An examination of the mean scores in Table 6 for the three test periods indicates that there was a major increase on the TPI from the CEP 1 to the CEP 2 of 14 points. Then there was a decrease of 8 points from the CEP 2 to the CEP 3. This curvilinear trend for the CEP on the TPI will be discussed in relation to the theory practice dilemma in the next chapter.

On the basis of data in Table 7 on the POQ for hypothesis 3, the hypothesis is rejected. Examination of Table 7 indicates that a significant F ratio was obtained. ($F = 11.26$, sig. $.01$)

The steady increase of the POQ mean scores over time in Table 6 indicates that CEP subjects are becoming more open, more tolerant, and less authoritarian. This supports the premises set forth by Combs on CEP (Wass et al., 1974).

The relationship between the data presented in Tables 2 through 7 and the hypotheses of this study is considered next. Implications and inferences drawn from this discussion follow.

CHAPTER V
DISCUSSION

If, according to Combs (Wass et al., 1974) the CEP is designed to make future teachers more flexible, more self-confident, more problem-centered, more aware of self and more open to the experiences and beliefs of others, then one would expect greater openness on attitude and belief measures for CEP students than those trained traditionally.

The results of hypothesis 1 lends partial support to this. There were significant differences between the CEP and the traditional groups on mean scores for the PBI. Not only did CEP subjects average 10 points higher on the PBI than the traditional subjects, but this significance held over time. Because the CEP subjects scored significantly higher, one presumes that they are more "experimental" than the traditional group. This supports the premises of Combs concerning the CEP program.

However, it is of interest to note that while there were significant differences between CEP and the traditional group on the PBI, which samples personal beliefs, there were no significant differences on the PBI, which

is more reflective of actual teaching behaviors. Thus one could conclude from these data that the exposure to the CEP program did indeed have an effect on the openness of the students' personal beliefs but little evidence that this openness was reflected in actual teaching behaviors.

This follows the results of Gallup (1970) who did a cross-sectional study examining the effects of academic preparation and/or teaching experiences on the educational and philosophical beliefs of female elementary education teachers. He reported while the personal beliefs (as measured by the PBI) of the four sample groups were essentially the same, the educational beliefs (as measured by the TPI) significantly differed. Gallup concluded that the effects of academic and teaching experiences were more on educational rather than personal beliefs. The two kinds of beliefs seem to respond differently to the variables of academic and teaching experiences.

Further support of this is found in Webb and Guinagh (1975). They did a descriptive study rather than a comparative evaluation, studying the program (CEP) as it was viewed by students while they were immersed within it. In effect, it was an examination of how closely the program matched its own theoretical goals. Webb and Guinagh reported that while 81.4 percent of the students indicated a growth in their sense of responsibility since joining the program and an impressive number of

students indicated that the CEP experience in general had helped them to develop a positive self-concept, 66.5 percent were not convinced that the CEP was what they wanted in a teacher education program. As a matter of fact, about 43 percent would prefer a more traditional program of teacher preparation which incorporated school experience. Thus the personal beliefs of the CEP students were favorable to the program but their educational beliefs were somewhat negative. "The fact that CEP prides itself on its student-centered orientation makes it hard for us to ignore so large a group of students who would prefer a more conventional program. If student perceptions make the difference we claim they do in education, then these statistics should give us pause" (Webb and Guinagh, 1975, p. 35).

The finding of no significant differences on the POQ is difficult to interpret. Examination of Table 6 indicates that the CEP group had higher prescores than the traditional group (164.80 vs. 151.48), but both groups had almost equal postscores (168.16 vs. 165.58). Thus both groups showed some evidence of being more open, more tolerant and less authoritarian, but the cause of effects from pre to post for the two groups is not clear.

One of the major concerns with the present study was the effect of exposure to the CEP program on a group of students compared to a group who were traditionally

trained. One of the apparent limitations of the Gallup study was that it was cross-sectional in design and therefore there was an absence of a clear relationship between sample groups. This apparent limitation was overcome in the present study by using a longitudinal design. Nevertheless, it is of particular interest to note that even though a longitudinal study was performed that the results were almost identical with those reported by Gallup. In fact, at the time of the internship, the scores on the TPI and PBI for the two studies were almost identical. For example for the TPI (see Figure 1), Gallup reported a mean score of 192 while the mean score for the present study's traditional group was 192. For the PBI (see Figure 2), Gallup reported a mean score of 150.7 compared to the mean score of 149.7 for the traditional group in the present study at internship.

In terms of trends over time, both Gallup and the present study reported no significant differences on pre post change on the PBI. Finding nonsignificant differences between mean PBI scores on pre vs post for hypothesis 2 could indicate that teaching experience did not have a significant effect on personal beliefs on either the CEP or the traditional group. This finding was also reported in the Gallup study.

Close inspection of Table 6 for hypothesis 3 indicates a slight but nonsignificant increase on PBI scores

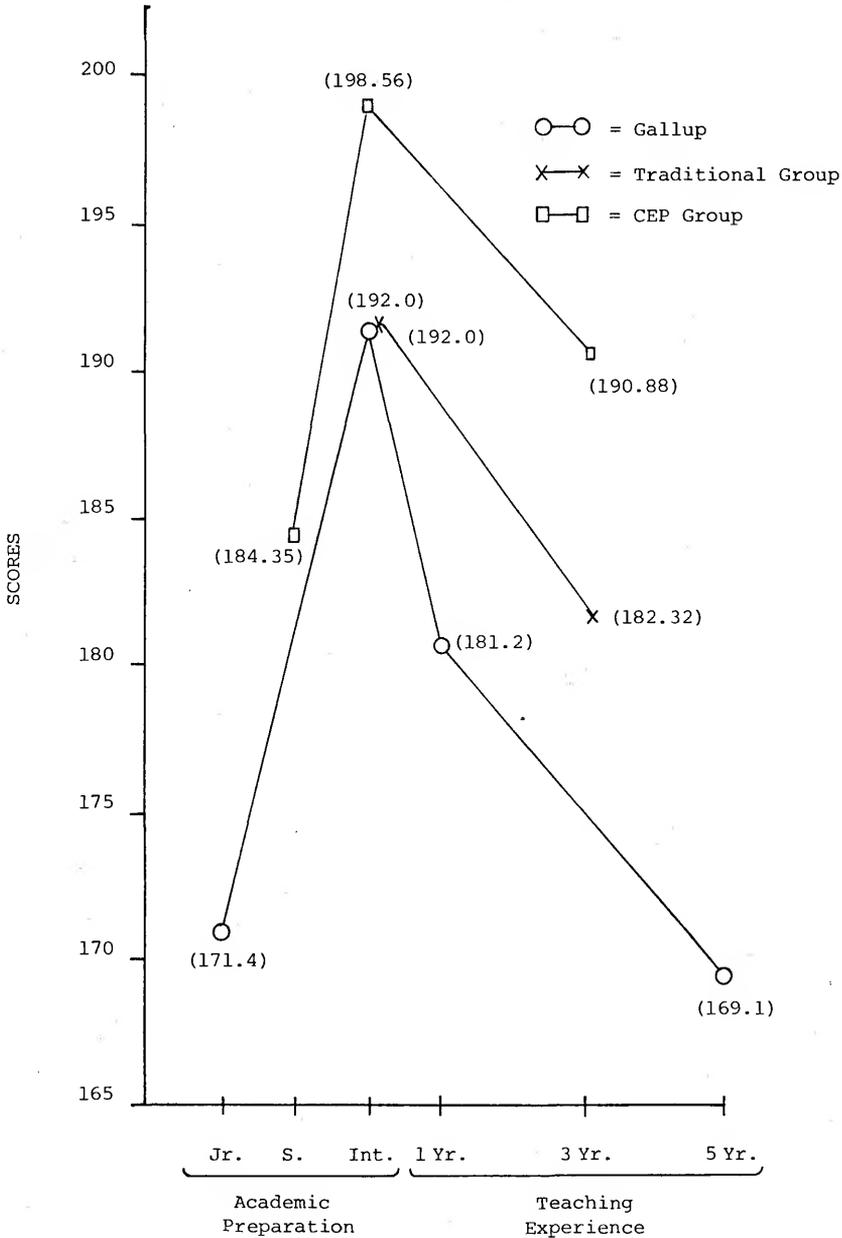


Figure 1. Mean Scores on TPI for Gallup and Present Study

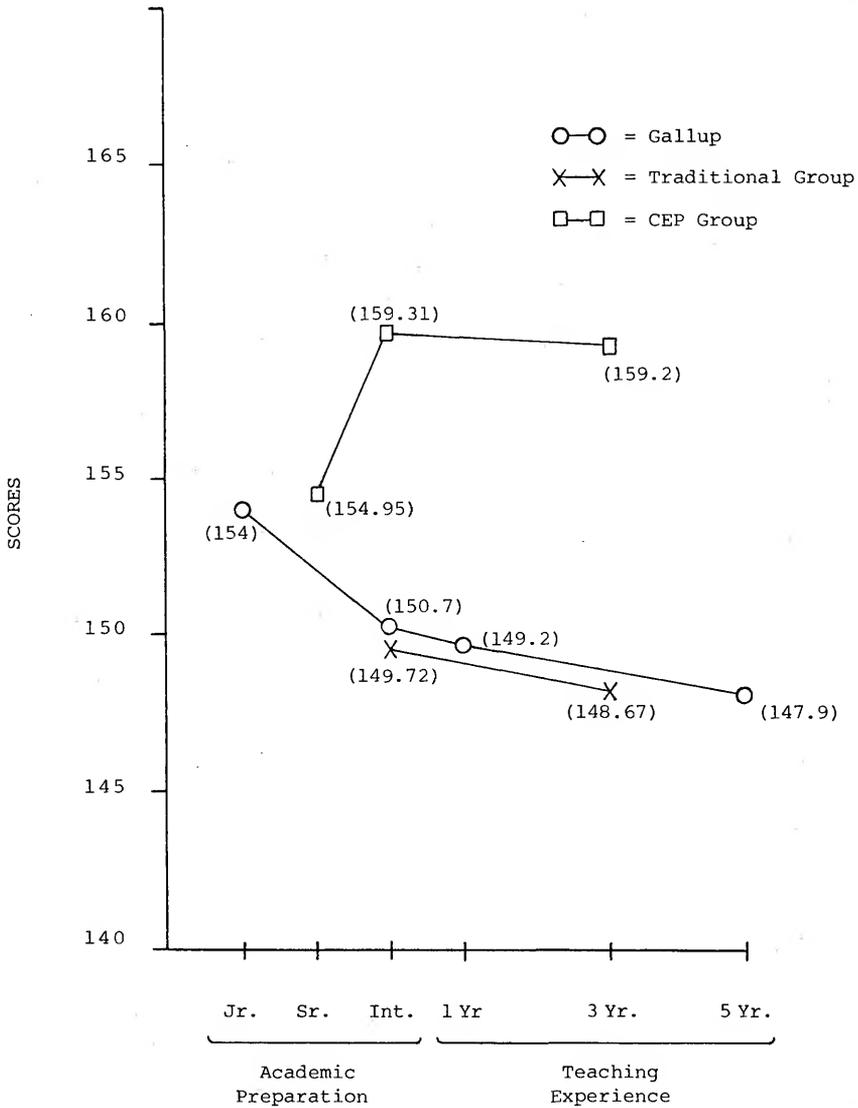


Figure 2. Mean Scores on PBI for Gallup and Present Study

for the CEP group from the beginning of their senior year (154.96) to their period of internship (159.32). Then there is a very slight decrease from internship to the period when the subjects were inservice teachers (159.24). Also the control group's scores did not significantly decrease either (149.72 to 148.68). The mean PBI scores presented in Table 2 reflect a nonsignificant but slight decrease in scores from pre to post for the traditional group.

However, both studies found significant differences on the TPI, with postscores being lower. On teacher practices for hypothesis 2, there were significant differences between pre-post scores on the basis of the TPI for both groups. In both groups there were significant drops from pre to post—8 for the CEP group and 10 for the traditional group. Both groups over time were becoming somewhat less "experimental" in their teaching practices, but the CEP scores were higher in both pre- and postscores.

An examination of the mean scores in Table 6 for the three test periods indicates that there was a major increase on the TPI from CEP 1 to CEP 2 of 14 points. Then there was a decrease of 8 points from CEP 2 to the third test period of CEP 3. The premise by Combs that CEP students would hold their teaching practices over time is not supported by hypothesis 3. A note of interest is the fact that Gallup reported a similar decrease in his subjects' TPI scores.

It should be noted that the curvilinear trend of the TPI mean scores might lead one to the conclusion that the effects of teaching experience had a stronger effect on teacher practices than personal beliefs with CEP subjects. If one compares the drop in the TPI scores with the nondrop in the PBI scores, one gathers evidence that the theory practice dilemma mentioned by Brown had an effect on CEP trained teachers as strong. The theory practice dilemma is defined as the discrepancy between what teachers say they know and believe in theory and how they teach, or fail to teach, in practice.

Gallup's subjects also had a very similar decrease which closely matched the present study's control group. This lead Gallup to the same conclusion mentioned before, that the effects of academic and teaching experiences were on educational rather than personal beliefs. This is due in part because personal beliefs do not appear to be nearly as amenable to change as educational beliefs.

In both studies the initial rise in the TPI scores during the students academic experience could be the result of the student learning the desired responses rather than a genuine change in attitude. If the professors, as a group, promoted experimentalist educational beliefs it would be very difficult for a student to graduate without exhibiting a written or verbal appreciation of this education point of view. If this be true, then the decline in the TPI scores

during the student's teaching experience as an inservice teacher could be that the public schools' teaching situation may not be reinforcing the same choices or beliefs as the teacher education program did. Gallup's data indicating the more teaching experience one had, the lower his TPI score, lend credence to this premise.

Therefore, the theory practice dilemma would be a result of the academic experience of the future teacher, or in other words, it may be a product of the teacher training program.

Further support of the theory practice dilemma in CEP appears in the data of Webb and Guinagh. According to Brown, when a program is incongruent between what it says should be done and what is actually done, it can be said that the program is experiencing the theory practice dilemma.

As mentioned before, the four major principles underlying the organization of CEP, according to Avila et al., (1972) were:

1. One learns best when learning is made personally meaningful and relevant.

"The 'need to know' tenet of the CEP program is, of course, indisputable" (Webb and Guinagh, 1975, p. 20). Yet only 27 percent indicated that they chose a particular learning activity on the basis of a "need to know;" instead the students scheduled learning activities for convenience. Webb and Guinagh also found that 52.5 percent of the students

reported that they were forced to do nonmeaningful learning activities, always or much of the time. In addition, even if they were not forced, only 15.2 percent indicated that they found their learning activities to be very challenging. This throws into serious question the extent that the learning activities are providing students with personally meaningful and relevant information. Webb and Guinagh stated that these "learning activities do not seem to be serving the functions that CEP philosophy hoped they would fill" (Webb and Guinagh, 1975, p. 26).

2. One learns best when learning is adjusted to the rate and need of the individual.

The CEP program has been developed with the idea that students learn best when they work closely with faculty. Yet, 61.2 percent of the students indicated that it was somewhat difficult or very difficult to contact faculty. In addition, 53 percent indicated that they are either unsure or unconvinced that the faculty is doing an adequate job in preparing them for teaching. How is the faculty going to adjust learning to the need or rate of the individual if there is little communication or if the student has no confidence in the faculty member. As Webb and Guinagh have stated, this "problem does promise a very special kind of attention to student needs and some students may feel a great frustration when this promise, for whatever reason, is not faithfully fulfilled" (p. 15).

3. One learns best when there is a great deal of self-direction.

CEP students according to Blume, "not only have a choice of means to accomplish a task, but they have a choice of when to do it. If they have a logical alternative task they would rather do, they will probably be permitted to do that instead of the required one" (Wass *et al.*, 1974, p. 19). Yet only 37.3 percent of all students have ever modified a learning activity. In addition, a large proportion of students feel that the modifying option is open to them in name only. Webb and Guinagh stated, "if the adapting of learning activities is an accurate indication of the degree to which students take an active participation in their own education, then this should cause concern in the CEP" (Webb and Guinagh, 1975, p. 25).

4. One learns best when there is a close relationship between theory and practice.

The results on the first three principles, although not conclusive, are not very encouraging as to CEP bridging the gap between theory and practice.

As indicated earlier, both the traditional and CEP group appeared to show a steady increase in openness as measured by the POQ but these differences from pre to post do not appear to be due to differential treatment of the two groups. The prescore for the traditional group on the POQ was considerably lower (151.48) than the pre score for the CEP group (164.80). The finding of pre-post significant differences in favor of the traditional group, especially when postscores were almost equal (165.58 to 168.16)

suggest, that this finding of significant differences is most likely due to the differences in the prescores rather than any effects of either the traditional or CEP program might have had.

Thus it appears from the results of the present study that there has been some effect of the CEP program on the expressed personal beliefs of the students. On the other hand, little evidence is available which indicates that the actual teaching practices were different for the two groups, at least as measured by the TPI. However, Busby et al., (1974) found differences in the TPI scores. In general, Busby et al., results indicated that CEP students seem to be more flexible, self-confident and they appear to have different perceptions about the nature of the educational process. They believe in an active problem-centered, experimental classroom and see motivation as primarily intrinsic rather extrinsic.

The sample used in the present study was drawn from the sample analyzed by Busby. Busby's sample contained more subjects than did the present sample and his report of significant differences on the TPI scores may be due to his greater sample size.

Thus one of the major implications would seem to be that the programs, despite initial increases in TPI scores, are not having lasting effects on educational beliefs.

While the TPI reflects student attitudes and beliefs about teacher practices, this is in no way identical with the actual teaching practices used in the classroom. Research studies using observational data to examine teaching practices have suggested somewhat different results. Busby et al. (In Press) and Wass and Combs (1973) did follow-up studies of graduates of the CEP program as compared with the traditionally trained graduates.

The results of the Busby et al., comparison indicated that graduates of the CEP program perceived their program to provide more adequate preparation for the teaching profession. One may be reminded that Webb and Guinagh (1975) reported an opposite trend. The CEP graduates perceived themselves to be more confident, self-initiating and skillful in helping other grow. The observational instrument used was the Florida Teacher Rating Scale (FTRS) which was developed by Busby et al., and was answered by principals.

Three observational measures were used by Wass and Combs (1973), one perceptual and two behavioral. They reported that the experimental teachers had a significantly higher total score than the control group on the Perceptual Dimensions Scale. "Particularly, they perceived others as able and were possessed of larger goals to a significantly higher degree, and tended to see themselves as more adequate and were more self-revealing than the control teachers" (Wass et al., 1974, p. 46).

On the Teacher Practices Observation Record (TPOR), the CEP group scored significantly higher on the total of all even numbered items, indicating that in their overall classroom practices, experimental teaching was evident. However, Wass and Combs stated that on the Reciprocal Category System used to measure verbal behaviors associated with social climate, no significant differences were found.

Wass and Combs collected this observational data only on the postgroup and no observational data on the pregroup was available. Therefore, to keep consistency with the self-report data and with the major concern of the study—changes over time; these data were not included in this study.

The findings of the present study when viewed in combination with the results reported by Wass and Combs, Busby et al., Webb and Guinagh and the earlier study by Gallup raises a number of important questions that require further research. It is clear that the TPI scores which reflect beliefs about teaching practices may not sample the same domain as the Teacher Practices Observational Record which is an observational record of actual teaching behaviors. If in fact there have been significant changes in the belief system of those students exposed to the CEP program, then some clear differences in actual teaching behaviors should occur. Wass and Combs (1973) do report

differences between the CEP and a traditionally trained group on an observational report of teaching behaviors. On the other hand, there is little support of the data on the teaching behaviors of these students earlier in the CEP program and the results of Wass and Combs must be viewed as suggestive but incomplete information regarding changes in teaching behaviors. There are no data to indicate that the actual teaching behaviors of the CEP group before entering inservice teaching was any different than reported.

Limitations

Because the subjects tested in this study were enrolled in the CEP program in 1969-70, they may not be representative of the beliefs of today's students, and therefore may weaken the generalizations and implications of this study. However, the findings of Webb and Guinagh (1975) with their 1974 sample support many of the findings of this study.

Another limitation was the small number of subjects. This was due to the high mortality over time between the two data pools. Generalizations from such a small sample are not considered to have as high reliability as larger samples. However, the findings from this small sample supported the conclusions of Gallup (1970), thus adding strength and reliability to this study's generalizations.

Another limitation was using self-report data only. Self-report data and their correlation with one's self-concept are considered low by some. Combs and others have raised some questions concerning the validity of self-report measures. They stated that self-report measures are lacking in reliability, not only because the individual may intend to deceive the tester but also because the individual does not know the whole truth about himself. In addition, there is abundant evidence according to Hall and Lindsey (1970) to show that factors unavailable to consciousness motivate behavior, and that what an individual says about himself or writes on his attitudes and beliefs may be distorted by defenses and deceptions of various kinds.

Since the PBI, TPI, and POQ are self-reporting instruments, a lack of clearer results in support of CEP might be argued as being due to the use of self-report data. This important question should be examined more closely in future research.

In summary, the major limitations of this study was that it was run on a small scale, restricted in the number of teachers, and in its instrumentation. While admittedly far less comprehensive and complete than hoped for, assessments and conclusions were made on the basis of data collected within the limits of the previous studies and resources available.

Recommendations for Further Research

According to Wass et al., (1974) assessing the effectiveness of a humanistic teacher education program calls for a systemic and comprehensive approach that uses all possible avenues. That is the examination of all available data by both objective and subjective methods, and product as well as process measures. "For example, systematic classroom observation by trained observers along with principals' judgments, peer rating and self-reports might be used to assess effectiveness. Taken together they may give a better picture or added strength to the evaluation" (Wass et al., 1974, p. 31-32).

Thus a valuable area for further research would be to use observational techniques in a longitudinal design with self-report data on teacher belief systems so that some "hard" data can be collected in order to make some conclusive assertions about the CEP program.

CHAPTER VI

SUMMARY

An important problem for institutions of teacher education is to select and train people to be effective teachers. Therefore, an area of investigation where "hard data" are needed concerns innovations in teacher education. According to Wass and Combs, "if we do not change teachers, it is highly unlikely that we can bring significant changes in our school" (Wass and Combs, 1973, p. 1). In an effort to bring about these changes, the Childhood Education Program (CEP) was designed by the Departments of Childhood Education and Foundations of Education at the University of Florida. This elementary teacher preparation program focused upon the self-concept of the teacher trainee.

It is Combs' belief that, ". . . teacher education is not a question of learning 'how to teach' but a matter of personal discovery, of learning how to use one's self and surroundings to assist other persons to learn" (Wass et al., 1974, Preface). This theory was evaluated experimentally and compared to the existing traditional programs.

This study deals with the evaluation of the two teacher training programs. It examines the belief systems

of elementary teachers exposed to either the CEP or the traditional elementary education program by their performance on three instruments designed to sample attitudes and beliefs.

Beliefs and attitudes, in this study, were defined by the Personal Beliefs Inventory, The Teacher Practices Inventory, and the Personal Opinion Questionnaire, all constructed by Brown (1968). These instruments are designed so that beliefs and attitudes are defined as being in a continuum of greater to less agreement with the experimentalist philosophy of John Dewey.

Related Literature

The review of related literature was undertaken with the intention of examining the theoretical positions of the CEP, and its influence on the belief systems of elementary teachers. Three major conclusions were drawn from this review.

The first conclusion was that despite a great deal of research, educators are still unable to define good teaching in terms of any specific information or behavior which can be clearly shown to be always associated with either good or poor teaching.

Another conclusion was that Brown, Combs, and others believe that a study of teachers' belief systems might provide a better approach to understanding the differences between good and poor teachers. Behavior is only a symptom;

the causes of behavior lie in meanings, the person's system of beliefs, his perceptions about himself and his world. This perceptual approach produced the underlying principles of the CEP.

Finally, the results of CEP research produced no clear cut evidence as to whether the CEP was significantly better than the traditional program. While much of the data were encouraging, it was not conclusive. It did show that there were strengths as well as weaknesses in the CEP; further research for "hard data" is needed.

Design of the Study

This dissertation, longitudinal in design, examined the belief systems of elementary teachers under the two programs. The following hypotheses were tested:

1. There will be no significant difference in comparison of the CEP to the traditional groups on scores for the Personal Beliefs Inventory (PBI), Teachers Practice Inventory (TPI), and Personal Opinion Questionnaire (POQ).
2. There will be no significant differences between pre- vs. posttest scores for the PBI, TPI, and POQ for the CEP and the traditional groups.

3. For the CEP group, there will be no significant differences between scores on the PBI, TPI, and POQ for the three test times.

Sample

Out of Busby's (1974) and Wass' (1973) samples, a total of 50 subjects, 25 CEP and 25 traditional, was identified and constituted the data sample.

Instruments

The instruments used were the Personal Beliefs Inventory, the Teacher Practices Inventory, and the Personal Opinion Questionnaire. These instruments were constructed by Brown and described in The Experimental Mind in Education (1968). The higher the score on each instrument, the greater the agreement with the "experimental philosophy" of John Dewey and the theoretical positions of Combs and the CEP.

Testing Procedures

All students completed the three inventories concurrently. Each student was administered the three attitude measures in 1969-70 by Busby et al. (1974) and then again by Wass and Combs (1973) three to four years later, when they were inservice teachers. However, for the CEP

subjects only, additional data on the three measures were obtained at the beginning of the CEP students' senior year.

Statistical Design

The hypotheses were tested by a 2 x 2 repeated measures design and a 3 x 1 test over time design, both using an one way analysis of variance and a test of simple effects, pre vs. post.

Results, Discussion, and Suggestions for Future Research

The first hypothesis, dealing with no significant differences in comparison of the CEP to the traditional groups on scores for the PBI, TPI, and POQ, was rejected for the PBI but not for the TPI or the POQ at the .05 level. While there were significant differences for CEP on the PBI, which samples personal beliefs, there were no significant differences on the TPI, which samples teaching practices. Thus one could conclude that the exposure to the CEP program did indeed have an effect on the openness of the students' personal beliefs, but little evidence showed that this openness was reflected in actual teaching behaviors.

The second hypothesis, dealing with no significant differences between pre- vs. post scores for the PBI, TPI, and POQ, was rejected for the TPI and POQ but not for the PBI at the .01 level. If one compares the decline in the

TPI scores with the nondecline in the PBI scores, one could conclude that the theory practice dilemma mentioned by Brown (1968) has an effect on CEP-trained teachers as well as traditionally trained ones. Also, the finding of the significant differences in the POQ is most likely due to the differences in the prescores rather than any effects of either the traditional or CEP program.

The third hypothesis, dealing with no significant differences between scores on the TPI, PBI, and POQ for the three test times for CEP, was rejected for the TPI and POQ but not for the PBI at the .05 level. Thus the effects of teaching experience had a stronger effect on teacher practices than personal beliefs with CEP subjects.

Many of the implications found in this study support the findings of Gallup (1970), including the effects of academic and teaching experiences on educational rather than personal beliefs. This is due in part because personal beliefs do not appear to be nearly as amenable to change as educational beliefs. Another one of the implications is that when the rise and decline of the TPI scores are compared to the stability of the PBI scores, this gives evidence that the theory practice dilemma may be a product of the teacher training programs.

Since these findings on the self-report data were not congruent with some of the findings of Busby et al. (1974), and Wass and Combs (1973), it was suggested that

research using observational data be used to verify the self-report data on teachers' belief systems. The major limitations of this study were that it was run on a small scale, and was restricted in the number of teachers and in its instrumentation.

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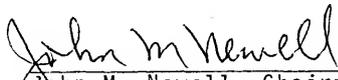
BIOGRAPHICAL SKETCH

Julian Arthur Hertzog was born March 25, 1948, in Wheeling, West Virginia. In 1954, his family moved to Miami, Florida, and in June, 1966, he graduated from Coral Gables Senior High School. Mr. Hertzog attended the University of Florida from September, 1966, to June, 1970, when he received the degree of Bachelor of Arts in psychology.

In December, 1971, he enrolled in the Graduate School of the University of Florida. While working on his Master's, he taught psychology at Raiford State Prison. In March, 1972, he received the Master of Education degree and was admitted to the advanced school of the College of Education in the Department of Foundations of Education for work toward the Ph.D. degree. He worked as a graduate teaching assistant in Foundations, teaching adolescent psychology, from September, 1972, until June, 1975.

Mr. Hertzog was the President of the Banana Club, for which he received an award from the University of Florida Faculty Club. He is a member of Kappa Delta Pi and Phi Delta Kappa.

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.


John M. Newell, Chairman
Professor of Education

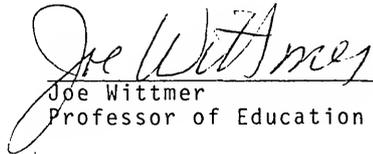
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Betty L. Siegel
Professor of Education

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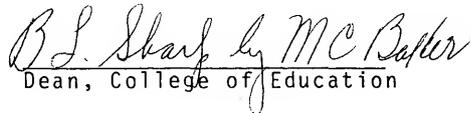

Hannelore L. Wass
Professor of Education

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.


Joe Wittmer
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This dissertation was submitted to the Graduate Faculty of the College of Education and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

August, 1975


Dean, College of Education

Dean, Graduate School