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A Study of the Effect of Using Fiction, Selected Case Studies and Autobiographies on the Cognitive and Affective Responses of Teachers of Mentally Retarded Children

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A STUDY OF THE EFFECT OF USING FICTION, SELECTED CASE STUDIES AND AUTOBIOGRAPHIES ON THE COGNITIVE AND AFFECTIVE RESPONSES OF TEACHERS OF MENTALLY RETARDED CHILDREN

by

Mary Harding Bell

A Dissertation Submitted to the Faculty of the School of Education of Loyola University of Chicago in Partial Fulfillment of the Requirements for the Degree of Doctor of Education
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I am indebted to many people who assisted in developing a new aspect for the curriculum for teaching those persons who plan to become teachers of mentally retarded children: the members of the classes included in the research study; the dissertation committee consisting of Dr. Barney Berlin, Dr. Robert Cienkus, Sister Constantine, Mr. Carter Frieberg; and my husband, Mr. Robert Bell.
VITA

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CHAPTER I
INTRODUCTION

Historical Perspective

Society has always contained a portion of its population which might be designated as mentally retarded. "Mental retardation is a common condition. In the United States alone it has been estimated that 5.4 million individuals are mentally retarded. The prevalence of this condition is exceeded by only four other health problems: mental illness, cardiac diseases, arthritis and cancer" (President's Panel on Mental Retardation, 1962).

The problem of mental retardation becomes acute in a society whose major population resides in urban,

1 Kirk describes a mentally retarded person as one "who has potentialities for development in (1) minimum educability as in the academic subjects of school, (2) social adjustment to such a point that he can get along independently in the community, and (3) minimum occupational adequacy to such a degree that he can support himself partially or totally at adult level." Samuel Kirk, Educating Exceptional Children (Boston: Houghton Mifflin Co., 1962), p. 197.

industrialized centers. When the United States was an agrarian society, many of the mentally retarded were able to be absorbed into the farming and unskilled working classes. They were thus able to perform tasks which did not require high level skills and cognitive ability. As society became more complex, it became increasingly necessary to arrange for the care of the no-longer self-sustaining mentally retarded. "From 1850 until the early 1900's, institutions were built for their benefit. They were built to last and unfortunately they did." Prior to the beginning of the twentieth century, public schools began to open classrooms for mentally retarded children. The first classroom in a public school was opened in Providence, Rhode Island, in 1896. The problem of mentally handicapped citizens continued for over fifty years to be considered the concern of public education institutions.

Only in about the last ten years have other groups and individuals come to see mental retardation as a difficulty with which they ought to concern themselves.


Since about 1963 a number of spokesmen have emerged who have asserted their representation of the mentally handicapped. "This situation has . . . troubled our national conscience -- but only as a problem unpleasant to mention, easy to postpone, and despairing of solution. . . . I am proposing a new approach to mental illness and to mental retardation." These were the words of John F. Kennedy in 1963, and he went on to say:

When carried out, reliance on the cold mercy of custodial isolation will be supplanted by the open warmth of community concern and capability. Emphasis on prevention, treatment and rehabilitation will be substituted for a desultory interest in confining patients in an institution to wither away. . . .

The plea is for teachers and facilities, for community planning and acceptance. The teacher, it is recognized, is pivotal to the academic plan for the mentally retarded; it is the task of the teacher to analyze the difficulties and potentialities of the mentally retarded student and to implement a program intended to bring him into society as an acceptable and useful person. An important area of the whole problem of mental retardation, then, is the curriculum which will prepare such teachers for their work, which will include methods and materials readily adaptable to a given situation.

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and capable of success. The existing programs of curriculum design are only a beginning toward solving the difficulties of producing knowledgeable, successful teachers for the mentally retarded. It is the intention of this paper to test additions to these programs which would maximize both the affective and the cognitive responses of the teachers who are being prepared for work with the educable mentally retarded. The affective response would be evidenced by increased empathetic reaction in addition to increased cognitive understandings of the effect of the problem of retardation.

Education and Society

The continuity of a society is largely dependent on those who prepare its youth for adulthood and citizenship. In a simple society the child will learn the adult role from the parent; it will be a part of his daily life. The artisan in such a society would operate in a tutorial situation with one or a few students, and thus his skill will be performed by a future generation. In a complex society, on the other hand, a more detailed system of training for youth is required, and a major element in that system is the instructor, who must be sensitive to the students' needs.* The complex tasks and fields of knowledge which are imparted in the more sophisticated society are simply too extensive to
be inculcated in small groups or at home. It becomes immediately obvious that the large groups of young people who must be educated and trained for citizenship will require quite a large group of trained teachers.

Special education is not content oriented; it is person oriented. The academics in the curriculum help the person to function in his environment. Any other type of curriculum for the educable mentally retarded person is self-defeating. Academic institutions have traditionally emphasized the content of a subject rather than the effect of that subject upon the learner. It was an overstatement to say, "It has been said that Sputnik (1957) put subject matter back into the curriculum." Subject matter was, in fact, never out of the curriculum; the curriculum does not exist without the subject matter. The fact of the matter was, however, that subject matter had lost its traditional ascendancy. The trend toward social adaptation is visible in the establishment of the Laboratory School in Chicago by John Dewey in 1896. The school proposed to "train children in cooperative and mutually useful living." The organiza-


tion of the curriculum into an "activity program" gradually became part of the educational process after William H. Kilpatrick of Columbia's Teachers College and Boyde Bode of Ohio disentangled Dewey's "complex thinks...ings, . . . investing them, as by magic, with a brightness and clearness they had never known." Converts were gathered, the Progressive Education Association came into being in 1919, and the influence of the organizational pattern became immediately evident in the elementary school curriculum. Over the years adversaries multiplied and dissension increased, until "in June, 1955, in its thirty-sixth year, what remained of the Progressive Education Association gasped its last."

Men entering the armed forces during World War II were examined, and it was found that there were shocking "inadequacies in the science and mathematics background of high school students." Support was gained for those who had long been stressing subject matter in the curriculum. It is true that the advent of Sputnik stimulated the existing trend.

A valid case can be made for the emphasis on

8 Ibid., p. 473.

9 Ibid., p. 475.

10 Goodlad, op. cit., p. 12.
subject matter; however, groups in any society vary as to the type and amount of formal education which they can and should assimilate. Education can provide "the mechanism by which the young can ascend from kindergarten to the republic's highest learning. Needless to state, there are all sorts of inequalities in education, some imposed by the stern determinism of nature and beyond repair, others man-made and correctable." In any case, teachers are required who are attuned to the needs of the variously talented or intelligent students. They need to know what knowledge to impart and the best methods of performing such instruction as well as the ability to obtain from their own training as teachers some methods of encouraging the formation of affective as well as cognitive responses. This type of teacher training is not at present integrated within the curriculum:

The major portion of a college education for the prospective teacher is provided by subject matter specialists who are not in the least concerned with how to teach children or high school youth.  

11 Meyer, op. cit., p. 487.

Education and the Educable Mentally Retarded

The educational program for the educable mentally retarded child (henceforth to be referred to as the EMR child) emphasizes the developmental rather than the selective function of education, in distinct contrast with the traditional emphasis in schools.

Education throughout the world has for many centuries emphasized a selective function. Much of the energy of teachers and administrators has been devoted to determining the students to be dropped at each major stage of the education program.14

The concept that schools have as their primary function the "development of the individual" has come, in modern times, to be accepted by "many of the highly developed countries" who see as the "central task of the schools" the development of "those characteristics of students which will

13 Rules and Regulations for Special Education, State of Illinois, 1969, 14-1.04. "Educable Mentally Handicapped means children between the ages 5 - 21 years who because of retarded intellectual development as determined by individual psychological evaluation are incapable of being educated profitably and efficiently through ordinary classroom instruction, but who may be expected to benefit from special education facilities designed to make them economically useful and socially adjusted." (The word "retarded" has been used in this paper rather than the term "handicapped" as the former is the more universally used term.)

enable them to live effectively in a complex society." Should this concept come to a general acceptance, the need will become apparent for curricular situations which encourage teachers to respond to the affective needs of the child; and this need will be recognized as extending to include all teachers, not just those who are involved with handicapped pupils.

The conflict between the revival of "content" after the 1957 Sputnik and the trend toward "individualism" in the sixties gives rise to the question of mutual coexistence of such theories of education. Must all other theories be discarded in favor of a prevailing theory? Cannot there be more than one "right" theory? It is this aspect of academic preparation which continues to keep the issue of teacher education a topic of current interest.

The teacher who plans to teach mentally retarded children must have access to programs or such knowledge as will allow him (or her) to create programs that incorporate the needs of the individual and the needs and nature of society. The materials used must be at the level of academic ability, indicated by the mental capabilities of the EMR child. Because the social and physical interests of the EMR

15 Ibid., p. 6.
child are at a higher level than his mental ability, the task of providing adequate academic materials is immensely difficult and requires an understanding of the appropriateness of various curricula and materials. In performing the tasks of an instructor of EMR children, the teacher must necessarily have a commitment to the concept of qualitative distinctions of children and a visualization of each person as an individual. The teacher has a definite impact on the child and has a positive or a negative effect on development. While concerned with the cognitive domain, the teacher must also be concerned with the affective domain in order to empathetically approach the mentally retarded child.

The basic premise of education for EMR pupils is developmental progression according to the diagnosed needs and abilities of each individual pupil. Desired achievements are clustered at levels of learning. A child remains at a given level until he has mastered the maximum achievements of that level. Within the curriculum, EMR pupils move from one level to the next at a rate commensurate with their abilities. The traditional graded procedure is based on the idea that one year of school equals one year of academic progress. The child of normal intelligence is expected to progress from one grade to the next within the time span of a year. It is necessary that this expectation be removed from
the teacher of EMR pupils and that such a teacher learn to minister to the developmental needs of his mentally retarded pupils. Progress will not be according to an annual rate of advancement, but will vary according to the academic abilities, opportunities, and particular experiences of the EMR child.

The teacher who recognizes affective responses as an integral part of learning is a step closer to the recognition of each person as an individual. "What educators must realize, moreover, is that how they teach and how they act may be more important than what they teach." The EMR pupil must be encouraged and assisted to develop as an individual who can function in society. His emotional needs must be met in order that he can develop an adequate self-concept. Academic achievement is used less for its own sake than to further the process of "normalization" of the child. Acquisition of skills and knowledge is not the primary goal of the EMR child's education; the goal is to imbue such a child with an ability to cope with a complex society that expects him to meet its requirements for acceptance.

Purpose of the Study

This research study was initiated because of a basic concern regarding an observed lack of empathy on the part of a great many teachers of EMR children. The usual content and methods in teacher training courses appear not to have been producing or to be capable of producing teachers of EMR children whose teaching performance exhibited empathetic reactions. As it seemed additional components were required in the curricula of prospective teachers of EMR children, this curriculum research study was organized with the specific intention of determining the effect on the understandings and affective feelings of the subjects (prospective teachers of the educable mentally handicapped) of a variable in the content of their own curriculum of education. The variable was literature: fiction, selected case studies, and autobiographical readings were added to the content of the curriculum. Encouragement was systematically given to the gaining of insights from plays, novels, and personal experience accounts written by parents of mentally retarded persons. Applying the assumption of the worth of literature in the educative process, the research encouraged further understanding of the mentally retarded and their problems through any literary materials which might provide information and/or increase the teacher's empathetic understandings of the situations of the retarded person, of his family, and of his friends or
social acquaintances. Granting that skilled writers describing situations and feelings have a powerful impact on the reader, the research proposed that this type of material might be more effective than clinical descriptions in a textbook or technical journals. At all times the assumption was that such an empathy would be a positive force in the effectiveness of a teacher whose task must be the preparation of mentally retarded individuals to assume a place in the modern world's complex society.

This research study has endeavored to explore the potential of one means by which a teacher training institution might establish a program that would bring about in the prospective teacher an awareness of (a) the needs of the educable mentally retarded child in the context of the realities of the life of an EMR child, and (b) a greater skill at dealing with those needs in light of those realities. An empathetic point of view is the first step toward the gaining of such awarenesses; a teacher sensitive to the needs of the child and the burdens of retardation will be able to provide a climate in which the child can at his own pace and according to his ability learn and develop in his social responses, as well as academically and technically. "Educators who are involved in training prospective teachers on a university level will need to be concerned with communicating more flexible and positive attitudes to
Students about handicapped students as human beings, prior to the onset of their teaching careers -- for ultimately these predispositions may be far more important toward changing children than technical concerns, such as the use of particular materials."

The EMR child has few conscious means of manipulating his environment as a student. It largely depends on the teacher whether or not a sufficiently positive atmosphere can be created in which development and progress can occur. Affective behaviors which change or modify the learning ability of the child become the priority for the teacher in teaching and dealing with that child.

Although the mentally retarded child has been instructed in public schools in Illinois since 1897, mandatory education of the EMR child has been in effect only since July 1, 1969. Classrooms have, in many cases, been opened and staffed with teachers who had had little or no formal training in the area of education for the mentally retarded. Many such teachers are at this point returning


18 The first class for the EMR child in Chicago, Illinois, was opened in 1897. The designation at that time was "Subnormal" rather than "Educable Mentally Handicapped."
to teacher training institutions in order to acquire knowledge of the methods of planning academic and vocational programs for the mentally retarded person from three to twenty-one years of age. The task requires teachers with a superior knowledge of and willingness to understand the needs of the mentally retarded child, and of his family as well. The curriculum for such teachers should stress the affective aspects of understanding and empathy, as well as basic cognitive concepts pertaining to the EMR child and his parents.

H. B. 323 became a law of the State of Illinois on July 1, 1972. It provides academic training for EMR children from the ages of three to twenty-one.
CHAPTER II

REVIEW OF LITERATURE

Overview

This research study is concerned with (1) teacher education, (2) a curriculum plan for the person who is learning how to teach EMR children, and (3) a specific instructional technique used in that curriculum plan -- the addition of selected fiction, autobiographical readings, and case studies to the normal curriculum. In order to develop a relationship among these three elements, a review of literature in the following areas was utilized: (1) teacher preparation, (2) curriculum planning, and (3) the use of fiction in academic situations.

Teacher education stresses the fact that schools stand in the midst of what Robert Hutchins has called "the conflict of education in a democratic society." Schools operate under the scrutiny of every social level: parents, pupils, taxpayers, welfare recipients, business people, professionals, and blue-collar workers all aim concerned and anxious eyes toward educational institutions and their

administrators. "At no time in our history has there been such an apparent diversity in our society and in the demands upon the school." 2 "The complexity, the rate of change, and the contradictions in the values of American society make the role of the school an especially difficult one." 3 The situations in schools have customarily received attention from those who write articles and books, and in modern times the attention of the media has also been directed toward such problems and attempts at solutions. Information, for example, concerning the reading scores of pupils in the Chicago public schools were headline items, discussed broadly on radio and television and well covered by the press. The spotlight upon the schools has brought a corresponding attention to teacher preparation in which area a great many questions remain to be answered. With changes being indica-


4 The 1970-71 scores of reading test results were headlined in Chicago Today on Wednesday, November 1, 1972. The stories were on pages 4 and 10. Reports were made on NBC's channel 5 in Chicago.
ted for the future, specific questions arise as to what changes, major and minor, need to be introduced when plans are made for teacher education programs.

Survey of Teacher Education

A brief survey of the history of teacher education indicates the evolution from the early "normal" school curriculum, consisting of a single year of training, to a four-year program of college education as the standard requirement in the United States at the present time. The curriculum has been altered and augmented. While the normal schools were mainly concerned with methods and materials for teaching, the educational background of a college-trained teacher today consists of a liberal arts sequence before the concentration upon an area of academic specialization. This type of curriculum is thought to contribute to the experiential background and academic maturity of the student (potential teacher). Those who are concerned with the quality of teachers seek other creative innovations to that same end. Charles Silberman expressed his feeling on the subject in his Crisis in the Classroom:

While teachers-to-be start out with a relatively accurate picture of what most teachers do, what

5 The State of California requires a five-year teacher preparation program.
most teachers do is not what they should be doing.3

There are large numbers of people who feel that schools should not challenge our acquisitive society, that one of their primary functions is to confirm the values of that society. According to T. R. McConnell, there is little for them to be disturbed about regarding our higher education institutions:

There is considerable evidence that higher education has failed to touch the pervasive elements of young people's character.7

McConnell bases his statements on the results of a series of studies of college students conducted by the Center for Research and Development in Higher Education at Berkeley. He and his associates found the data of research concerning changes in characteristics and attitudes difficult to measure, lacking prior studies for comparison and general information. Studies are needed in every aspect of the professional life of the teacher, and an especial need is indicated regarding the possibilities of changes in characteristics and attitudes because it has been demonstrated to what a great extent the


attitudes of a teacher influence the development, both academic and emotional, of that teacher's students. "The first and most consistent role that a teacher plays is that of a human being, a person." Teachers have a commitment to the child and to society. "To fulfill their part in that commitment, elementary teachers have learned to regard their pupils as the cross section of society, with seemingly endless variations in ability, aspirations, ideals, and values. To meet the individual needs of pupils, they have found it necessary to experiment with varying approaches to instruction, to solicit authoritative opinion and to keep abreast of current development in their field."

The Curriculum and Teacher Education

To meet the challenges resulting from "continuous and unrelenting change of American public school education," the format of teacher education is also undergoing "drastic changes." The modern teacher has an increased opportunity


10 Ibid., p. iii.
to be truly well educated due to the alterations in the curriculum, content, and time allotment in college attendance. Opportunities for an increase in cognitive abilities have not, some feel, been enough. Silberman states that schools can help to "create and maintain a humane society" if a definite effort is made. It would be the part of teachers to spearhead the effort to consider each pupil as an individual human being through consideration of affective development. "There is nothing that goes on in the classroom that is not of ultimate consequence for the social order that is not reflected in some way in the classroom."

Careful consideration must precede the choice of alterations to be made in the teacher preparation curriculum. The intention of this study has been to introduce literary materials for the sake of adding vitality to the present structure and as a move, perhaps, towards a restructured curriculum. Instructional situations and techniques that

11 Ibid.
12 J. W. Getzels and Helen Herbert, "The Classroom Group as a Unique Social System," The Dynamics of Instructional Groups, Fifty-Sixth Yearbook for the National Society for the Study of Education, distributed by the University of Chicago Press, 1957, p. 79.
reveal problems and attitudes of pupils are a basic consideration of the teacher education program planners. The programs should include methods and materials designed to evoke affective responses from students.

13 Rosenthal and Jacobson note that the expectation of behavior in another person has an effect on one's own behavior, almost to the extent of actually prescribing such behavior. According to the basic concept of inter-personal self-fulfilling prophecies, the teacher's expectations -- as perceived by the pupil -- are of the utmost importance to his development. That expectations and attitudes have tremendous impact on student progress is demonstrably true. Some feel that the effect is not so great as others do, but this is only the result of an inadequacy in the procedures of data gathering and analysis which make the actual effect difficult to measure. Considering the vast potential for positive effect to be attributed to the self-fulfilling prophecy phenomenon, attention ought certainly to be given to encouraging the development of methods by which teachers are made

able to utilize it to the student's advantage. Especially in the instance of the socially disadvantaged child who is also an EMR child, the self-fulfilling prophecy action of teacher expectations might be expected to act to his disadvantage, so that techniques are called for which would at least neutralize the effect.

Curriculum Research Using Fiction, Case Studies and Selected Readings in Teacher Education

At the present time, reading materials in the area of fiction, case studies and teacher education readings are not integral to the teacher education curriculum. There are some examples of such materials being used in a wide range of other academic situations: the public schools of Richfield, Connecticut, as well as a number of other public schools, include reading of fiction as part of the political science curriculum. Humanities curricula all reflect the consideration that extensive reading in varied areas is of value as a means of increasing the extent and depth of the student's knowledge. The national Reading Is Fun program distributes reading materials of high interest to disadvantaged readers in the hope that reading will become pleasurable to these young people and will serve to increase their general knowledge and overall understanding. The principle of utilizing pleasurable, high interest materials as a means of motivating the acquisition of cognitive and/or
affective understandings stands behind a great number of programs in a variety of curricula. Fader and McNeil describe the development of a program of reading and writing for teenagers in a boys' training school. It is stressed that the program is recommended for children at every social level. Paperbacks, magazines, and newspapers are used to establish an empathetic working relationship between the students and the teacher. Selected reading material can be used to introduce certain learning experiences and aid in the development of a sort of understanding that non-literary sources might not advance or might even retard.

Lane and West report that some members of the University Council of Educational Administration are attempting to create a "renaissance administrator by means of an inter-disciplinary though clearly behavioral approach to knowledge." Literature is widely used in the classroom situation towards the development of values and


15 Willard R. Lane and Phillip T. West, "If You Can't Pretend, You Can't Be King," Phi Delta Kappan, Volume LII, No. 16, June 1972, p. 659.
concepts believed to be essential to administrative action. Literature has demonstrated its value as an exploratory tool towards comprehension of abstract concepts in many educational specialties.

By simplifying the complex, as well as by enlivening the dull and monotonous, literature gives the student the opportunity and the incentive to increase his understanding of organizational environments and human relationships.\textsuperscript{16}

The student is given help in playing his role, which is considered more and more as an important aspect of personality development. Literature which helps define and describe a role may have the result of great advancement to personal development; it may, in the situation of the teacher education program, "help cast the educator in a new and dramatic image." \textsuperscript{17} Occupational self-identity can lead to action and growth in a variety of directions and through various means.

The conclusions which may be drawn \textsuperscript{[from literary classics]} are that people do become what they do, be they administrators, teachers, or students, and that they are capable of becoming what they are expected to do, despite overwhelming obstacles, but only if the role provides opportunities for self actualization.\textsuperscript{18}

\textsuperscript{16} Ibid., p. 659.

\textsuperscript{17} Ibid., p. 661.

\textsuperscript{18} Ibid., p. 660.
Long, Morse, and Newman utilize literature in a textbook for those planning to teach children with learning and behavioral problems. The book, Conflict in the Classroom, contains a number of fictional pieces and case studies selected as providing "psychodynamic, behavioral, educational, social competence, and ecological models." Fitz Reldl introduces the book with the statement that "there is no substitute for getting the 'feel' of what it is like to be an emotionally disturbed child." If you substitute "an educable mentally retarded child" in the statement for "emotionally disturbed child" the result is an expression of the basic premise of this study: that literature provides a means of introducing affective learning into the teacher training program for teachers of EMR children.

A government publication, The Six Hour Retarded Child, emphasizes new methods of training teachers as well as retraining and sensitizing those persons who are at the


20 Ibid., p. vii.
present time teaching EMR pupils. The authors recommend that all teacher training institutions should continue to seek new models for preparing professional teachers, emphasizing sensitivity to the child's needs, as well as to "restructure the education of teachers, administrators, counselors." They say, "Retrain those now in the field." 21

Stout State University in Menomonie, Wisconsin, conducted a research project which considered possible changes in the training program for teachers of EMR children. Several papers, presented as a part of the research project preparation at a pre-conference meeting (November 12-13, 1970) expressed concern for the need of changes in such training programs. "Studies indicate that considerable changes must be made in secondary education and teacher education." 22 There is, as always, a lag here between research and action. As noted in one of the papers:


Unfortunately there has been considerable reluctance on the part of the university programs to depart from the traditional approach of preparing secondary teachers of the retarded.23

One paper, by Jack C. Dinger, was concerned with "the ability to communicate and the willingness of the teacher to understand, empathize with and cope with" deprivation and ethnic differences. Teachers, he indicated, must find ingenious ways of combatting lethargy and indifference, must learn to "understand, empathize . . . and cope."24

James A. Bitter expressed a belief that "the teacher must be capable of identifying and understanding the needs of the individual student."25 Also needed is a flexibility which will allow the teacher to remain "sensitive to the interests and problems of the students and have the ability

23 Ibid., p. 10.


25 Ibid., p. 37

to permit the direction and pace of a learning task to change as the situation demands."

Marc Gold's paper emphasized the desirability of sensitivity in the teacher of the EMR child; the idea of arriving at such sensitivity through the teacher education program recurs throughout.

The teacher must develop an awareness, understanding and sensitivity of the world in which a student lives. This can be done, in part, by reading about the environment in which his student exists. Through reading selected literature, he indicates, the barriers of ignorance concerning mental retardation may be diminished, the complexity of the problem of retardation may be decreased, and "an effective mode of developing and delineating organizational concepts and values" may be arrived at.

27 Ibid., p. 35.


29 Willard B. Lane and Phillip T. West, "If You Can't Pretend, You Can't Be King," Phi Delta Kappan, Volume LII, No. 16, June 1972, p. 659.
CHAPTER III

PROCEDURE

Subjects in the Study

The subjects of this study were graduate and undergraduate students enrolled in Northeastern Illinois University, a commuter college located in Chicago. The subjects were enrolled in the course entitled "Teaching the Educable Mentally Handicapped Child." This overview course is concerned with the basic preparation in curriculum, methods, and materials for teachers planning to work with EMR children. For all of the subjects, this was the first academic experience in the field of mental retardation.

As random selection of the subjects was not feasible (the sample would have been too small), intact classes were studied. Extending the research over a long period -- with a view toward increasing the number of subjects -- was undesirable, as the possibility of controlling the variables and retaining the inviolability of the test items would have been correspondingly decreased.

The students of a "commuter college" reside within commuting distance of the college; there are no dormitories on the college campus.
The subjects were divided into two groups, experimental and control. Each subject was categorized within the group under one of the following titles:

a. Undergraduate with experience with EMR children
b. Undergraduate without experience with EMR children
c. Graduate with experience with EMR children
d. Graduate without experience with EMR children

Both groups contained the same sample of the population, although the percentage of sample in each sub-group varied (see Figure 1). Experience was defined as encounter and observation of EMR children, either as an aide, as a volunteer, or as a teacher. Experience was considered as a moderator variable. The information concerning the prior experiences of the students with mentally retarded children was obtained from the subjects at the first meeting of the class. There were variations in the experiential backgrounds of the students with regard to their contact with EMR children: some had had no contact whatsoever; others had worked with EMR children as substitute teachers; others had done some work as volunteer workers with EMR children in recreational situations.

The author of this paper acted as instructor for all the students, thus reducing the effect of the teacher-pupil interaction variable, and conscious effort was made to maintain consistent relations with all students. The
experimenter at all times avoided favoring one class over another. Parallel structure was used; and, since the classes were taught on the same day, the task of the comparison of the class structure was made more easy than it would have been had there been a different time sequence. Continual self-monitoring included such conscious efforts to avoid differentiating in any manner between the classes and was considered an essential element of the experiment.

The following teaching methods were used for both groups of instruction:

a. lectures
b. discussions
c. committee reports
d. selected readings
e. written reports

The one independent variable for the experimental group was the content of the selected readings. In addition to the regularly assigned text readings, the experimental group read and discussed fiction, case studies, and biographies related to the area of mental retardation.

The normal class time was identical for the groups. The experimental group used approximately ten percent of the class time for discussion of the extra materials and approximately fifteen percent of the time outside of class for reading the selected materials.
The Design of the Experiment

The purpose of this study is to test whether the planned use of fiction, case studies and biographical or autobiographical works -- in addition to textbooks and journals -- would make a difference in the students' understandings and attitudes, as compared with the understandings and attitudes of those subjects who had used only textbooks and journals. Expressed in statistical terms, the hypothesis reads:

\[ H_0: m_{\text{Cont}} = m_{\text{Exp}} \quad \text{vs.} \quad H_a: m_{\text{Cont}} \neq m_{\text{Exp}} \]

where \( H_0 \) stands for the null hypothesis, \( H_a \) stands for the alternate hypothesis, \( m \) stands for the mean, Cont for the control group, and Exp for the experimental group.
Figure 1. Internal Composition of the Experimental and Control Groups.
The null hypothesis stated that the variable of using literature (in the form of fiction, case studies, and biographical pieces) in addition to textbooks and journals would not make a difference, as opposed to the alternative hypothesis which stated that the variable would make a difference in the understandings and affective feelings of the subjects.

There was a pre-test, a treatment, and a post-test for each person in the group. The scores of the test for the experimental and control groups were compared in order to ascertain the possible effect of the experimental variable -- which was the reading and discussion of fiction, selected case studies and biographies. The examination of the multivariate influencing factors enabled more accurate comparison and predictions. The patterns used for comparison were:

**Internal Group Comparison**

1. Undergraduate, non-experienced
   vs.
   Undergraduate, experienced.

2. Graduate, non-experienced
   vs.
   Graduate, experienced.

3. Graduate vs. Undergraduate.
Overall Comparisons: Experimental vs. Control

1. Undergraduate, non-experienced
   vs.
   Undergraduate, experienced.

2. Graduate, non-experienced
   vs.
   Graduate, experienced.

3. Graduate vs. Undergraduate.

4. Experimental vs. Control (composite scores)

The Design of the Test

The paper and pencil performance test (see Appendix B) constructed by this writer for the study was designed to evaluate the grasp of the cognitive and affective concepts of students in the classes entitled "Teaching the EMR Child." The test was a part of the teaching plan.

The six components of the teaching plan were (1) rationale, (2) objectives, (3) formative evaluation, (4) learning activities, (5) summative evaluation, and (6) possible revisions.
to provide a basis for formative and summative evaluation. The information obtained from analyzing the scores from the formative evaluation was used to revise the curriculum of the course after the research experiment. The information obtained from analyzing the scores of the summative evaluation was used to partially estimate the extent and depth of cognitive and affective concepts acquired by the students.

The sample situations in the test illustrated the cognitive and affective concepts of mental retardation considered essential for persons intending to teach EMR pupils.

The criteria used for instruction were the same criteria used for writing the evaluation instrument:

The use of the content outline should establish content validity in that the test items based on the outline assess or sample the mastery of that content for which they are intended to test.5


"Summative evaluation" is "the type of evaluation used at the end of the term . . . for research on the effectiveness of a curriculum, course of study, or educational plan," (ibid., p. 117).

These criteria are based on information from (a) textbooks on mental retardation, (b) discussions with persons who have expertise in the field of mental retardation, and (c) the teaching and resource experiences of the instructor.

This plan was similar to the one recommended by Bloom. With the use of readings, consultation "with other teachers and experts" as well as observation of the "variations in his students" and by "referring to the experience he has accumulated in dealing with individual differences," Bloom has stated that "evaluation should provide the teacher with

6

7
Some of these persons were (1) teachers for all levels of retardation, (2) members of the staff of Flower Hospital, New York City, (3) a department chairman of Special Education for an Illinois university, (4) coordinators in Special Education for a large school system.

8
b. Cooperative Research Project in Mental Deficiency, 1958-60.

9
evidence he needs on the effectiveness of the procedures he utilizes."

A test is a selection of hypothetical situations which represent actual situations. These representative situations can be evaluated, and the results of the test are hoped to be representative of an attempt to determine how the person being tested will function in an actual situation. When the test is being constructed, a selection or sampling is needed from the total set. This particular test, being administered to future teachers of EMR pupils, is one which represents the total set. Affective and cognitive concepts and factual knowledge must be evaluated. Educators generally recognize the difficulties of devising tests or measuring instruments which can actually measure accurately the amount of pupil gain. Measurement of the acquisition of limited factual matter is fairly easy, but measurement of all of the important products of learning -- confidence, understanding, insight, etc. -- is far more difficult. The task of constructing a test containing situations illustrating a measure of mastery of the affective, in addition to the cognitive concepts of the field of mental retardation was made more difficult by the lack of.

10 Ibid., p. 9.
available standardized instruments applicable to the model upon which the curriculum was based. As most achievement tests used in a school's measure of a student's performance indicate his response to a sample of questions intended to represent a certain phase of educational achievement or certain educational objectives in the cognitive area, such tests are not applicable to the data of the study being conducted here.

The test was constructed to have face and content validity. The items seemed to measure the understandings for which they were designed and to test the curriculum content believed necessary as a part of the academic preparation for teachers of EMR pupils.

In general a test is valid if it measures what it claims to measure. 13

11 "The term face validity is often used to indicate whether the instrument, on the face of it, appears to measure" (Stephen Isaac and William B. Michael, Handbook in Research (San Diego, California: Robert R. Krapp, Publ., 1971), p. 82).

12 "How well does the content of the test sample the kinds of things about which conclusions are to be drawn?" (Stephen Isaac and William Michael, ibid., p. 82).

The test may prove to have external validity if future studies can establish generalizability.

The design did not intend to use either empirical or criterion validity.

Feedback from students has made these facts available about a possible relationship between the tests and these types of validity.

"The term external validity refers to the generalizability or representativeness of the findings of a study" (Tuckman, op. cit., p. 79).

Empirical validity is concerned with the usefulness of a test in predicting a successful performance or how well it accomplishes a practical purpose. If a test is designed to pick out good candidates for an appointment as shop foreman and the test scores pick out good candidates for appointments as shop foreman, and test scores show a high positive correlation with actual successes on the job, the test has a high degree of empirical validity, whatever factor it actually measures. It predicts well; it serves a useful purpose" (Best, op. cit., p. 176).

Criterion validity is having the test compare with the criterion variables "considered to be direct measurables of the characteristics or behavior in question" (Isaac and Michael, op. cit., p. 82).

As a counselor for undergraduate and graduate students, I have more opportunities than do most teachers for direct "feedback" from students. This information is from students in my classes and from persons who have been given information by these students.
Empirical Validity

1. The undergraduates in prior classes who are now teaching EMR pupils have received EXCELLENT or SUPERIOR ratings as teachers.

2. Many former students used the materials successfully and have asked for in-service training for reinforcement and extension of learning.

3. Groups (not connected with Northeastern Illinois University) have asked for lectures and in-service training.

Criterion Validity

Those persons taking the NTE portion related to EMR have passed the test and have credited the course "Teaching the EMR Child" with a large part of their success.

The first form of the test consisted of thirty items. There were not enough items in the first test to represent the content of the course. A second form of the test was then written. This form of the test contained forty-two items in order to provide alternates in the event that any of the questions were either too easy or too difficult.

Difficult is represented by the percentage of students who answer a question correctly; the higher the percentage correct, the easier the question.

Both forms of the test were used in pilot projects in 1971-72.

to test the items. Not every question, it turned out, was an acceptable one; the finally selected items were chosen as identifying and defining the knowledge deemed essential for prospective teachers of EMR children.

The test used in the research study consisted of thirty multiple choice items and ten true-and-false items. The answers considered to be false were to be followed by the corrected statement, in order to further demonstrate comprehension.

The questions included in the test were intended to be equally familiar or unfamiliar to all subjects. Reliability of the questions used in the research test instrument was tested prior to the research study in pilot studies. Reliability "suggests that measures [continue to give results] accurately and consistently from one time to another. Reliable tests, whatever they measure, yield comparable scores upon repeated admission."

The test items were intended to evaluate the cognitive and the affective understandings of the subjects. While it is difficult to separate the cognitive and the

19 Pilot studies were conducted to test the usefulness of the hypothesis in four classes during 1971 and 1972. The groups of subjects had similar characteristics to the persons used in the research study.

20 Best, op. cit., p. 177.
affective domains absolutely, the twelve items which were designed to identify affective responses to an increased degree are: 5, 7, 15, 16, 17, 18, 19, 24, 25, 26, 35, and 37.

The test items were within the twenty to eighty percent range of comprehension; those which had been judged extremely difficult or insufficiently difficult were eliminated from the final form of the test.

The Role of the Curriculum Criteria in the Test Design

The test items for this curriculum research were based upon the actual curriculum of the course. The criteria and materials of a course should be known in order for the tester to accurately judge the effectiveness of the test.

Materials are important in assisting the teacher to respond effectively to the particular student according to his special needs. "Each type of material may serve as a means of helping individual students at selected points in the learning process." To be effective, the teacher must have a willingness to respond satisfactorily in accepting the value of the phenomenon, conceptualize and organize a

21 Bloom, Hastings, and Maudaus, op. cit., p. 49.
value system with the final objectives of generalization and integration of the total problem of mental retardation. The concern for achievement must be subordinated to a concern for social and emotional adjustment through the use of academic achievement. Individuals within the larger society differ drastically in their abilities to assimilate knowledge and in their methods of learning; teacher education should train teachers to realistically accept and respond in a positive way to the implications of differences. "If a student can't learn one way, he should be reassured that alternatives are available to him." Although a limited mental ability does preclude mastery of certain sorts of knowledge, the teacher should seek out and emphasize the number of other available areas of skill and knowledge which are open to the student. The teacher should be prepared, by his own education, to use the materials and methods of instruction which will overcome feelings of defeat and passivity in the learning role, especially for the EMR child, but for all children generally.

The taxonomy of educational objectives (cognitive

22 Bloom, Hastings, and Madaus, op. cit., p. 50.

and affective) was the basis of the construction of objectives toward which the test questions were aimed. The solution of the problems presented involved the following aspects of the cognitive domain:

1. Knowledge -- to recall and memorize
2. Comprehension -- to translate from one form to another
3. Application -- to apply or use information in a new situation
4. Analysis -- to examine a concept and break it down into parts
5. Synthesis -- to put together information in a unique or novel way to solve a problem
6. Evaluation -- to make quantitative or qualitative judgments, using standards of appraisal

The affective domain is represented by the types of problems which involved the following:

1. Receiving (attending) -- the willingness to attend or receive certain stimuli
2. Responding -- active involvement and participation

---

(3) Valuing -- the worth of a phenomenon of behavior

(4) Organization -- the organization, interrelationship and ordering of values

(5) Characterization by a value or value complex -- the generalization and integration of a total world view or philosophy

The use of objectives in the classroom adds meaning to the educative process. Basing a curriculum and evaluative instruments on objectives "may force the educator to a level of specificity concerning what is done in the classroom. The implications for curriculum building and innovation are great." Awareness of behavior goals leads to an increased use of affective objectives by the classroom teacher. When there is an understanding of the significance of behavioral objectives, these goals can be used more extensively in test situations. "Many problems exist in defining appreciation, value and attitude," yet "an understanding of the internalization process" can be gained by the teacher using internalization as a "structuring principle for the hierarchal framework of the Taxonomy."


There is unrest in the field of special education; a number of theories concerning the best methods of educating the EMR child are in practice, and new ones are proliferating as research on both mental retardation and educative processes is conducted. The professor who plans to be a teacher of potential teachers of EMR children must make difficult and influential decisions: Where do we go from here? "Here," of course, is where we are right now insofar as educating EMR children to the satisfaction of society, the children themselves, and educators. The basis on which the curriculum for those persons who planned to teach EMR children was organized and designed was the question of "where to go" and the corresponding "how to get there."

The Design of the Checklist

The checklist contained a spectrum of ideas concerning mental retardation and was constructed as an additional means of evaluating the hypothesis.

It was composed of statements made by a mixed sample of the population with regard to the problem of mental retardation. Those persons who made the statements were in approximately the age range of 12-0 to 70-0. Both sexes were represented, as well as a variety of ethnic groups, social categories, levels of education. The participants included parents, teachers, and administrators. The
checklist, given to sixty-nine of the subjects in the research study, consisted of statements for which there was a choice of five responses.

In order to select the best response for each statement, three experienced teachers of EMR children were asked to mark the checklist. It was felt that, with their extensive academic and experiential backgrounds, in the area of education of the mentally retarded, that these people had developed an awareness of the problems involved with the handicapped and would be sensitive and knowledgeable in the area being tested. In those cases where choices varied among the group, a consensus decided the selection to be regarded as correct.

The five choices were as follows: SA = strongly agree; A = agree; ? = undecided; D = disagree; and SD = strongly disagree.
CHAPTER IV

PRESENTATION AND DISCUSSION OF DATA

Presentation and Analysis of Pre-Test and Post-Test Scores of the Performance Test

The data contained in this chapter are based on information obtained from the scores from (1) a paper and pencil performance test and (2) a checklist. The test was administered to the one hundred twenty subjects in the research study. There was a pre-test and a post-test, with the pre-test being administered at the first class session and the test-test being administered at the final class session.

The test was a criterion referenced performance test concerning attitudes and understandings about mental retardation as outlined in the course in which the subjects were


2 The subjects were enrolled in the course entitled "Special Education, 38-411 and 38-343, Teaching the Educable Mentally Handicapped Child," Northeastern Illinois University, 1972.
enrolled. An interval of sixteen weeks occurred between the administration of the tests: a one hundred twelve day interval between testing decreased possible effects of memory.

Although random sampling is preferrable to the sort of selection made in this study, it was not in this instance possible. Use of such intact groups rather than samplings imposes the conditions of "the real world as opposed to the laboratory," with a resulting absence of control on the part of the educator. Consideration of the internal data, with respect to the composition of the classes, shows that the control group included a greater percentage of subjects with experience in dealing with mentally retarded children than did the experimental group (see Table 1).

3 Tuckman, op. cit., p. 3.
# TABLE 1

THE INTERNAL COMPOSITION OF THE EXPERIMENTAL AND CONTROL GROUPS

<table>
<thead>
<tr>
<th>GROUP</th>
<th>NUMBER</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EXP</td>
<td>CONT</td>
</tr>
<tr>
<td>1. Undergraduate, no experience</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>2. Undergraduate, some experience</td>
<td>17</td>
<td>10</td>
</tr>
<tr>
<td>3. Graduate, no experience</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>4. Graduate, some experience</td>
<td>15</td>
<td>32</td>
</tr>
<tr>
<td>TOTAL</td>
<td>59</td>
<td>61</td>
</tr>
</tbody>
</table>

The analysis of variance between the component parts of the groups of subjects (1. Undergraduate, no experience vs. Undergraduate, experienced, and 2. Graduate, no experience vs. Graduate, experienced) demonstrated there was no significant statistical difference between the calculated variances. These distributions are shown in Tables 3 and 4.
TABLE 2

THE MEAN FOR THE SCORES FOR THE FORTY-ITEM TEST

<table>
<thead>
<tr>
<th>GROUP</th>
<th>PRE-TEST</th>
<th>POST-TEST</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EXP</td>
<td>CONT</td>
</tr>
<tr>
<td>1. Undergraduate,</td>
<td>20.56</td>
<td>20.67</td>
</tr>
<tr>
<td>no experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Undergraduate,</td>
<td>20.12</td>
<td>21.30</td>
</tr>
<tr>
<td>some experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Graduate,</td>
<td>20.44</td>
<td>22.92</td>
</tr>
<tr>
<td>no experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Graduate,</td>
<td>21.60</td>
<td>20.41</td>
</tr>
<tr>
<td>some experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. All subjects</td>
<td>21.03</td>
<td>21.11</td>
</tr>
</tbody>
</table>
### TABLE 3

**ANALYSIS OF VARIANCE OF DEPENDENT VARIABLE BY INDEPENDENT VARIABLE (A) AND MODERATOR VARIABLE (B)**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>15.78</td>
<td>.23</td>
</tr>
<tr>
<td>B</td>
<td>1</td>
<td>1.15</td>
<td>.01</td>
</tr>
<tr>
<td>AB</td>
<td>1</td>
<td>37.71</td>
<td>.49</td>
</tr>
<tr>
<td>error</td>
<td>47</td>
<td>65.97</td>
<td></td>
</tr>
</tbody>
</table>

*Undergraduate, experienced vs. Undergraduate, no experience*
TABLE 4

ANALYSIS OF VARIANCE OF DEPENDENT VARIABLE BY INDEPENDENT VARIABLE (A) AND MODERATOR VARIABLE (B)**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>55.29</td>
<td>3.60</td>
</tr>
<tr>
<td>B</td>
<td>1</td>
<td>0.27</td>
<td>0.01</td>
</tr>
<tr>
<td>AB</td>
<td>1</td>
<td>55.84</td>
<td>3.64</td>
</tr>
<tr>
<td>error</td>
<td>65</td>
<td>15.33</td>
<td></td>
</tr>
</tbody>
</table>

**
Graduate, experienced vs. Graduate, no experience
TABLE 5

ANALYSIS OF VARIANCE OF DEPENDENT VARIABLES BY ***
INDEPENDENT VARIABLE (A) AND MODERATOR VARIABLE (B)

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>1.791</td>
<td>.051</td>
</tr>
<tr>
<td>B</td>
<td>3</td>
<td>0.318</td>
<td>.009</td>
</tr>
<tr>
<td>AB</td>
<td>3</td>
<td>37.372</td>
<td>1.072</td>
</tr>
</tbody>
</table>
| error  | 112| 34.83|(approximated at 100)

***

The total population of graduate and undergraduate students

An analysis of variance of the total population demonstrated that there was no significant difference between the calculated variances (see Table 5). The independent variable (A) is the curriculum. The moderator variable (B) is experience of the subjects (see Tables 3 and 4). The distribution for F is shown in Table 5.

The ratio on F representing significance at p < .05 is 3.99. Table 3 shows that the curriculum was an influencing factor for the subjects who were graduate students.
with no experience. The number 3.60 is .39 from significance at the $P < .05$ level. The figure of 3.60 is significant at the $P < .10$ level. It is possible that the graduate students with no experience would be more receptive of the curriculum which uses reading and discussion of literature as one method and material of the course. The factor of experience was not statistically significant for the other sub-groups, (1) graduate, experienced, (2) undergraduate, non-experienced, or (3) undergraduate, experienced.

The information from the data evolving out of the test indicates that the means of the pre-test and post-test scores were not significantly different statistically for either (1) the forty-item test or (2) the twelve-item sub-test (see Tables 2 and 6).

---

Items considered as most representative as affective items were 5, 7, 15, 16, 17, 18, 19, 24, 25, 26, 35, and 37. These items were selected by three experts in the field of mental retardation.
<table>
<thead>
<tr>
<th>GROUP</th>
<th>PRE-TEST</th>
<th>POST-TEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXP</td>
<td>CONT</td>
<td>EXP</td>
</tr>
<tr>
<td>1. Undergraduate, no experience</td>
<td>5.78 6.67</td>
<td>7.28 7.43</td>
</tr>
<tr>
<td>2. Undergraduate, some experience</td>
<td>5.29 6.0</td>
<td>6.41 7.5</td>
</tr>
<tr>
<td>3. Graduate, no experience</td>
<td>5.11 6.62</td>
<td>7.22 6.38</td>
</tr>
<tr>
<td>4. Graduate, some experience</td>
<td>5.67 7.67</td>
<td>5.81 7.13</td>
</tr>
<tr>
<td>5. All subjects</td>
<td>5.51 6.16</td>
<td>7.12 7.15</td>
</tr>
</tbody>
</table>

There was a difference of minus .08 between the two groups for the pre-test. The mean scores for the post-test for the control and experimental groups showed a difference of plus .80 for the experimental group. The extent of change did not show a significant statistical difference (see Table 7).
TABLE 7

COMPARISON OF PRE-TEST AND POST-TEST MEAN SCORES

<table>
<thead>
<tr>
<th>GROUP</th>
<th>PRE-TEST</th>
<th>POST-TEST</th>
<th>DIFFERENCE BETWEEN PRE-TEST AND POST-TEST SCORES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>21.03</td>
<td>28.10</td>
<td>7.07</td>
</tr>
<tr>
<td>Control</td>
<td>21.11</td>
<td>27.38</td>
<td>6.27</td>
</tr>
</tbody>
</table>

The control group could be expected to demonstrate a significant advance in understanding and attitude based upon knowledge gained from prior experiences with mental retardation. With experience as a positive factor in acquiring understandings and increasing affective responses, this group -- having the more experienced persons -- would be predicted to be so affected (see Figure 1). A comparison of the means shows that this is not so (see Figure 2). The means are statistically similar (see Tables 1 and 2). The fact that the experimental group, composed of subjects having less experience with children who are mentally retarded, were able to equal the achievements of the control group could indicate that the addition of the variable (reading and discussion of literature dealing with the subject of mental retardation) may have the effect of increasing the understanding and affective responses of especially those subjects.
Figure 2. Graph Illustrating the Mean Scores on the Achievement Test, Pre-Test and Post-Test of the Experimental and Control Groups.
who had lacked experience with mentally retarded children. Future research is indicated for confirmation or refutation of this inference.

Presentation and Analysis of Scores of Checklist

The data concerning the checklist (see Appendix C) are based on the scores made by sixty-nine persons who were administered the checklist after the completion of the course. The checklist was administered at two ad hoc sessions within the week following the administration of the post-test. The statements on the checklist are attitudinal expressions regarding mental retardation elicited from a cross section of the population.

The information from the data from the checklist was analyzed by a comparison of the overall ratings for each group (see Table 8).

The statements were made by persons to teachers of EMR children and reflect personal opinions. The population expressing these ideas varied in age, sex, education, knowledge of and interest in mental retardation, and they represented a cross section of the population.
TABLE 8

THE MEAN OF THE SCORES FOR THE RESPONSES TO THE CHECKLIST

<table>
<thead>
<tr>
<th>GROUP</th>
<th>MEAN</th>
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</thead>
<tbody>
<tr>
<td>1. Experimental (all subjects)</td>
<td>15.42</td>
</tr>
<tr>
<td>2. Control (all subjects)</td>
<td>12.32</td>
</tr>
</tbody>
</table>

The mean score for the experimental group was larger than the mean score for the control group, suggesting that the experimental group was more receptive to the problem of mental retardation than was the control group. The difference in the scores, however, was not statistically significant, so the demonstration was not conclusive.

Such a checklist, with weighted responses, may provide a more effective basis for judgment of whether there has been an increase in affective responses than would a performance test. Each response represents a point along a continuum, with the subject making a choice between alternatives representing value judgments and having different weights as to affective involvement of the subject. The use of the questionnaire in a research project involving affective responses would possibly be more effective if used to evaluate affective responses.
Interpretation of Scores on Test and Checklist

The statistical data in this research do not confirm the hypothesis that the addition of reading and discussion of fiction, selected case studies, and biographical or autobiographical pieces will increase the cognitive and affective responses of subjects enrolled in a course concerned with the teaching of mentally retarded children. It is the opinion of this writer that this lack of total confirmation should not indicate the end of considering this or other variations in curriculum planning. The success of a curriculum is not necessarily made evident through statistical data. It is more in application of concepts that particular affective responses tend to develop. Alternate curricular plans are necessary to cope with human variability. Teachers need more information about the different types of pupils and the relationship between academic potential and environment. Literature can, in the area of teaching the teachers of EMR children, be a source of information regarding the affective influence of a person's environment.

The subjects selected the books of fiction, case studies and biographical works which they would be reading and discussing during the research. It may be that it would have been preferable for a specific list of books to have been assigned. The random selection of books may have been a less effective means of developing affective
responses than would have a prescribed selection; or it may be that random selection hampered the exact measurement of the development of affective responses in a way that a limited range of materials would not have.

Analysis of Feedback from Formal and Informal Interviews

Observation of student behaviors should influence the decision to include, or not to include, specific materials in a curriculum. Measuring of such information (observations) was not included as a part of the data for this research. This type of input, however, is of value to the experimenter and can be utilized in making future value judgments. The feedback from the subjects, as part of the interchange of ideas between the students and the teacher, was positive -- with a single exception. The responses from the class indicated that the general consensus favored the addition of the variable to the course because (1) it increased general understanding and (2) it developed appreciation of the difficulties that mental retardation presents for both the person and his family.
CHAPTER V

SUMMARY AND IMPLICATIONS

Overview of the Basic Objective

This curriculum research study involved methods and materials used in a teacher education course for persons planning to teach mentally retarded pupils. Its basic objective was to determine whether the addition of reading and discussion of fiction, selected case studies, autobiographies and biographies would increase the cognitive and affective understandings of the subjects. It was believed that the introduction of other than the customary textbooks and readings would effectively operate as a means of increasing human and environmental relationships.

Personal observation of teachers of EMR pupils had indicated a need for affective responses and increased sensitivity to the problems of such pupils. There appeared to be a need for a curriculum which would evoke and encourage an affective response on the part of the potential teachers.

The idea of modification of a curriculum for teachers is in line with present academic trends, all of which call for modification of the existing educational
structures. The world "relevant" is often heard in connection with proposed changes. It is a difficult word to apply since it is a matter of subjective interpretation. A number of attempts have been made to relate material dealt with in the school to the ongoing world outside the school's confines. If academia is to be a part of life and a contribution to it, then the curriculum must be constructed so as to produce directly, rather than indirectly or accidentally, relevant progress. This study was undertaken with the intention of developing such a curriculum for a teacher training course related to mental retardation. The students were encouraged to develop an awareness of the depth of the problem of retardation, its concomitant needs and the most desirable responses. This empathetic process could be viewed as a continuum, with the person progressing along the continuum becoming increasingly more able to provide proper and helpful responses and becoming increasingly able to solve new problems. Belief that "the individual's perception directly influence his behavior on the cognitive and the effective level" can mean that the increase in perception will possibly lead to the acceptance of the mentally

retarded child and an understanding of his difficulties. A related premise is that the variable used in the experiment will increase perception by providing a sense of reality to unfamiliar situations connected with mental retardation.

The experimental-control analysis was used in the study (see page 33), and a comparison of the mean scores of the groups on pre-test and post-test criterion based performance examination did not reveal a statistical difference. Other sources of differences were explored.

 Implicit Implications of Responses

The climate of the experimental group differed in a positive direction from that of the control group by the end of the research study. This statement is based upon the following observed conditions noted by the writer:

a. the scope and degree of interest in problems of the mentally retarded child and his family,

b. the eagerness of the experimental group to exchange ideas and materials,

c. a sense of group cohesiveness and informality of response with one another in the experimental group to a degree not usually experienced in the more casual, objective relationship in higher academic groupings.

The above statements are implicit responses made by the subjects in the research and may be attributable to the independent variable: reading and discussion of literature; similar responses were not evident in the control group.

The presumption here is that the affective concepts of the students which were gained from the readings and from the subsequent discussions of those readings caused them to respond in a more empathetic manner. There were affective responses which could lead to understandings.

The influence of A upon B and C was evidenced by the implicit responses previously stated.
Each affective behavior has a cognitive behavior counterpart of some kind and vice versa. An objective in one domain has a counterpart in the opposite domain, though often we do not take cognizance of it.  

Effective and affective thinking are related. "Each domain is sometimes used as a means to the other, though the common route is from the cognitive to the affective." Affective responses can be a means to effective cognitive responses.

There was an inability to measure some of the aspects of influence on the cognitive and affective responses in this curriculum research study. This need not be the pivotal point of proof of the value of the process that the study advocates, however; of great importance is the fact that affective responses were made by the subjects and changes of behavior were observed.

Explicit Developments

Explicit behaviors which add to the value of this study are illustrated by the following outcomes as reported

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by the subjects in the experimental group after the completion of the research:

a. a group of fifth grade students read and discussed a book about mental retardation;

b. a bibliography of literature about mental retardation was distributed, for the first time, to teachers in a school where a class for mentally retarded children was to be established;

c. the case study Dibs, *In Search of Self* was used for a study group composed of parents of mentally retarded children;

d. books about retarded people were purchased and presented to a suburban library to stimulate interest in the problem of retardation in that community;

e. a librarian prepared an annotated bibliography of books about mentally retarded people for pupils on the junior high school level;

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there were discussions between and among members of the subjects' families whose members read the same books as the subjects had.

Interdisciplinary Curriculum

The organization of a multidisciplinary curriculum for persons concerned with teaching EMR pupils could be one way of helping educators to solve the problem of mental retardation as a societal phenomenon. Involvement of other disciplines might be a means of engendering an interest in the problem of mental retardation generally. An interdisciplinary curriculum for teachers of EMR children would involve representatives of varied disciplines combining forces to train the teachers who will be seeking solutions and applying them to the education of EMR children. A curriculum so designed would invite a closer relationship between

The persons who became interested as a result of the subjects' readings were not restricted as to sex, age, or academic or ethnic background. All groups were represented as becoming interested through the reading and discussing of materials read by the subjects.
the student's experiences in liberal and professional education. Such interdisciplinary planning has heretofore been virtually unexplored as a possible college curriculum development. An example of interdisciplinary participation might be the English department's providing lists of readings related to mental retardation. Varied methods of utilizing this material could increase the dimensions of teacher education. The idea of taking the interdisciplinary approach to the education of EMR children's teachers is the direct result of the assumption that it is of value to increase the empathetic relationship of the teacher to the student and that both cognitive and affective understandings can be in this way increased.

**Concluding Evaluations**

When an intervention is undertaken in a school system -- whether it is a specific course of study, a facility, or the introduction of a special piece of equipment -- there are usually aims or objectives that exist in the minds of the people introducing the intervention as to what outcomes can be hoped for and expected. These aims and objectives, which will be different for

8 "The terms program and intervention are used interchangeably; a program is only one form of intervention" (Bruce Tuckman, Conducting Educational Research (New York: Harcourt, Brace, Jovanovich, 1972), p. 327).
different specific interventions, represent the goals of success of the intervention.\textsuperscript{9}

Evaluation of this type of research study should not be limited to comparison of figures purported to represent progression or non-progression of control and experimental groups. The goals which motivated the study, the personal responses and post reactions of the students should influence the decision of the researcher as to the worth of the research project. Brubacher and Rudy state that it is becoming increasingly difficult to change the values of most students, whether the curricula are "conventional, integrated or problem oriented." This seems to suggest that variations in curriculum content and method should be further explored in order to find means of changing and positively influencing the values of students.

No statistical attitudinal changes ensued as a result of the addition of the variable to the curriculum of the experimental group, but a number of very apparent behavioral changes resulted. That this behavior was not

\textsuperscript{9} Ibid., p. 327.

reflected in the results of the tests might indicate one of two things: that the test was insufficient to the task for which it was intended -- that is, measuring affective response increases -- or that the change in behavior precedes by some period the actual change in attitude. An example of the latter would be the changes in laws which are followed, often after an interim of several years, by a real change in attitude. This past decade has seen innumerable instances of the lag of attitudinal change behind a change in behavior. Bradfield, et al, conducted an experiment involving the placement of an EMR child in a regular classroom class.

Teacher attitudinal changes were measured. . . . Results indicated that when attitudinal changes did occur, they tended to be in the negative direction though of small magnitude. Although no apparent attitudinal changes ensued as a result of the seminar, a number of behavior modification procedures that were learned during the in-service training were eventually

Open housing; equal hiring opportunities, school integration ("Brown vs. Board of Education"); school busing; these are a selection from a long series of situations in which peoples behaviors preceded change of attitude, where people are performing on a level different from that of belief or the verbalized expression of an attitude.
used in the classroom by a majority of the participants. Participation in the in-service seminar apparently produced changes in teaching behavior and willingness of the teachers to apply what they had learned.\footnote{Robert H. Bradfield, et al, "The Special Child in the Regular Classroom" \textit{Exceptional Children}, Volume 39, No. 5, February 1973, p. 390.}

Although both behavioral change and attitude change are desired, the former may precede the latter, in which case a test taken at a particular time may not indicate attitude change, though the behavioral change had made the attitudinal change seem possible. Researchers who consider attitudinal change the determining factor in deciding the value of an hypothesis will find this a most important idea.

The subjects reported that the information gained was used by them in both academic and family settings. Although the value of the interactions cannot be measured, the fact that the subjects demonstrated that they were influenced in a positive way indicates that it is reasonable to believe that the hypothesis deserves consideration. The empirical evidence of the experiences generated by the study seems to indicate a sensitivity in the experimental group that was not in evidence prior to the study. This subjective evaluation on the part of the writer is more than likely
valid: "Despite its objectivity, empiricism rests eventually on subjective bases."

What, the final question might be, can the acceptance of the proposed hypothesis of this study mean to the professor interested in teacher training? This writer believes strongly that increased research concerned with inclusion of a varied type of literature in addition to textbooks and professional material in teacher education is needed before a final evaluation is made. "Educators must borrow from other disciplines for enrichment and direction. Literature has illuminated life for countless centuries." Can it not do the same for teacher training?

Laurence D. Haskew and Jonathon McLendon, This Is Teaching (Glenview, Ill.: Scott, Foresman & Co., 1968), p. 172.

Willard R. Lane and Phillip West, "If You Can't Pretend, You Can't Be King," Phi Delta Kappan, LIII, June 1972, p. 661.
APPENDIX A

FICTION, SELECTED CASE STUDIES AND AUTOBIOGRAPHIES READ BY SUBJECTS IN THE EXPERIMENTAL GROUP

BOOKS READ BY THE SUBJECTS IN THE EXPERIMENTAL GROUP


APPENDIX B
APPENDIX B

THE PERFORMANCE TEST USED IN THE STUDY

NORTHEASTERN ILLINOIS UNIVERSITY
Department of Special Education

Teaching the EMH Child

Part I: Objective
Put an X on the line in front of the number of the BEST answer.

1. A physical education program for younger educable mentally handicapped children should stress

____ A. informal and non-competitive activities.

____ B. formal drill activities.

____ C. competitive games with other classes.

____ D. competitive games within the class.

2. "Persisting life situations" may be included in

____ A. the curriculum at any level of learning.

____ B. the primary level of learning.

____ C. the curriculum for the secondary pupil as vocational preparation training.

____ D. All of the above.

____ E. None of the above are correct.
3. Curriculum planning is of special importance to the teacher of EMH pupils as

___ A. curriculum guides are not always available as many guides are being revised.
___ B. the teacher is expected to provide a curriculum suitable for each individual.
___ C. plans for the year should be made in advance.
___ D. All of the above are correct.
___ E. None of the above are correct.

4. Early identification of the EMH child is beneficial

___ A. for research purposes.
___ B. in order to provide early training.
___ C. to prevent retardation as a result of cultural deprivation.
___ D. All of the above are correct.
___ E. None of the above are correct.

5. The father of a child in your class for EMH suddenly bursts into your classroom. He demands to know why his child is in your room. He also wishes to know the child's IQ. What should you do?

___ A. Discuss the problem in the classroom.
___ B. Tell him you will have the child retested.
___ C. Recommend a private psychologist.
___ D. Ask him to discuss this problem with the principal first.
6. Characteristic behavior of the EMH child is
   ____ A. deviant according to personality.
   ____ B. deviant in all respects.
   ____ C. deviant according to varied contributing factors.
   ____ D. All of the above are correct.
   ____ E. None of the above are correct.

7. The problem of retardation
   ____ A. belongs to the parent or guardian of the retarded child.
   ____ B. is the problem of educating or training the retarded person.
   ____ C. is a social problem or concern to society.
   ____ D. All of the above are correct.
   ____ E. None of the above are correct.

8. Objectives should fit
   ____ A. abilities of the group.
   ____ B. needs of the group.
   ____ C. interests, existing or created, of the group.
   ____ D. All of the above are correct.
   ____ E. None of the above are correct.

9. Levels of training are useful
   ____ A. for grouping purposes in the Primary division.
B. to organize the curriculum effectively according to achievements.

C. as a means of an effective grading system.

D. All of the above are correct.

E. None of the above are correct.

10. A parent who is retarded joins the local parent group. Would you

A. invite her to the bridge group?

B. attempt to become friends?

C. discourage friendship as your children were about the same age?

D. ask your church leader to visit the family?

11. Charles has been designated as an educable mentally handicapped child. His mother does not accept the decision of the psychologist and does not want him placed in a room for EMH pupils. What would you do to help her?

A. Refer her to a private doctor.

B. Invite her to PTA meetings.

C. Suggest a counseling agency.

D. Arrange a conference with the principal for the mother.

12. The EMH at maturity more approaches the norm in

A. physical development.

B. academic development.
13. John is shy and withdrawn. He does not participate in classroom activities. The teacher should

___ A. urge him to make friends.
___ B. tell him he must participate.
___ C. develop situations in which he can participate.
___ D. ask him to respond to simple questions.

14. Susan obtained an IQ score of 72 from a Stanford Binet. On the Weschler Intelligence Scale for Children she had a full scale IQ of 74, a verbal IQ of 68 and a performance score of 75. These results

___ A. are in substantial agreement.
___ B. show considerable variation.
___ C. indicate that further testing is needed.
___ D. suggest that the test scores show definite variation.

15. Prior to modern days, an EMH child could be absorbed into society as

___ A. he was considered an "infant of the good God."
___ B. society was more considerate.
___ C. society was less complex.
___ D. parents wanted to keep the retarded child at home.

16. James and Christine have one child, Therese. Therese is severely retarded with little hope of extensive improvement. James consciously adjusted to the situation by
using humor. How does James think this solves the problem?

___ A. Humor protects him from reality.
___ B. Humor forms a bond between the parents.
___ C. Humor makes incidents laughable.
___ D. Humor prevents the acceptance of the problem.

17. What type of parents would seem to be the best to adopt an EMH child?

___ A. Persons who are permissive and protective.
___ B. Persons who are loving and accepting.
___ C. Persons who have retardation in the family history.
___ D. Persons with a good socio-economic level who could give the child many advantages.

18. A child who has been rejected by his mother may have an emotional disturbance so severe as to interfere with the learning process. As his teacher, what would you do?

___ A. Establish a working relationship with the child on a basis of personal rapport.
___ B. Give the child the love he has missed.
___ C. Arrange a counseling with the school psychologist to the child.
___ D. Arrange a series of conferences with the mother.

19. Which term is your preference to designate a person who is on the lower end of the mental continuum but is educable?
20. Classes for the Primary EMH child in Illinois are:

A. based on C. A. and M: A.
B. based on M. A.
C. based on S. A.
D. based on I. Q.

21. Peter was angry when he arrived at school. He had been fighting and lost. While hanging up his coat Jerry accidentally bumped into Peter. Jerry apologized. Then Peter kicked Jerry twice. What would you do at this point to solve the difficulties?

A. Send the children to the principal.
B. Tell Peter to say "I am sorry."
C. Write a note to Peter's mother.
D. Send Peter to a place where you could talk to him privately.

22. What source would be best to find the legal basis for the establishment of classes for exceptional children in Illinois?

A. "Rules and Regulations for Special Education."
B. Office of the Superintendent of Public Instruction.
23. The owner of a small factory was asked to employ the mentally handicapped high school students for routine jobs. The counselor from the school had explained the situation to the employer. However, the factory owner was nervous when the first EMH student arrived at the factory. The owner believed that mental retardation and mental illness were synonymous. He had told several of the employees that the new worker was mentally handicapped. What would you do if you were the student?

A. Avoid all contact with the workers.
B. Refuse to work in the factory.
C. Do the best work possible.
D. Tell the owner "off."

24. The teenage siblings of a young retarded child cannot accept the immature actions of the retardate. The parents wish to consider the rights of all their children. What plan would you recommend to help the family?

A. Suggest that the parents reconsider their attitudes toward the retarded child.
B. Work out a program for the retarded child to improve his self-concept and sense of responsibility.
C. Work with other parents who have retarded children and plan a social development program for the children.
D. Suggest family group counseling from a family counselor.
25. Dorothy and Jerome married just after Dorothy's graduation from high school. At first Dorothy's inability to cope with the complexities of married life seem unimportant. As years passed, the overdrawn bank account, the inability of Dorothy to socialize and the immature ways which she developed became a source of irritation to Jerome. Dorothy was aware of her shortcomings. She was bewildered by Jerome's attempts to change her. Dorothy felt that Jerome was unfair, since he had known about her deficiencies before their marriage. What would you do if you were Jerome?

___ A. Assume duties which Dorothy cannot perform in a non-punitive manner.

___ B. Plan an adequate social life with people who accept Dorothy.

___ C. Try a separation which may ultimately become a divorce.

___ D. Try to overcome rejection of wife through using counseling services.

26. The ultimate goal of the education of the exceptional child is to

___ A. make him economically productive.

___ B. enable him to function in the community.

___ C. secure the rights of citizenship for him.

___ D. develop academic skills to approximation of the average.

27. In planning curricular experience for mentally handicapped pupils, the teacher should be guided by the principles that

___ A. behavioral objectives are necessary for planning and evaluation.

___ B. time allotments vary according to abilities of the child.
28. The use of standardized group achievement and group intelligence tests for selecting pupils for EMH classes may be considered to be

___ A. valid, if they are given by a teacher experienced in testing.
___ B. invalid, unless they were standardized on a mentally retarded population.
___ C. invalid, because group tests should not be used as a means of selection.
___ D. valid, if a trained psychometrist did the testing.

29. The establishment of educational and training facilities in the United States for the mentally handicapped resulted from the influence of

___ A. Binet.
___ B. Montessori.
___ C. Itard.
___ D. Seguin.

30. A teacher of the retarded can help the pupils to understand democracy most effectively by developing in the children

___ A. habits of honesty and conscientiousness.
___ B. respect for others as individuals.
C. a working knowledge of our governmental processes.

D. the desire to be a responsible citizen.

PUT AN X ON T FOR TRUE AND AN X ON F FOR FALSE. If you mark an answer false, correct the statement.

31. The rules and regulations for the State of Illinois provides for a psychological re-examination of the EMH child every school year.

T F

32. The rules and regulations for the State of Illinois requires the teacher to have special training in order to become an assigned teacher in an EMH classroom.

T F

33. The EMH child varies from the norm by degree, rather than by kind.

T F

34. "Clinical types" are found in many classrooms for the EMH child.

T F

35. The personality factor is usually a factor in curriculum planning.
36. Terminal educational plans for the EMH child may vary.

37. Parents find it difficult to face the present as they seek the "life solution."

38. The recent census revealed that 3% of our total population is mentally retarded.

39. The curriculum is selected for the individual EMH child.

40. Mental hygiene problems can develop if the teacher does not have an insight into the problems of the child.
APPENDIX C
THE AFFECTIVE RESPONSE CHECKLIST

INSTRUCTIONS: Following are some statements concerned with mental retardation. Please indicate the extent to which each statement characterizes your opinion by putting a check in the box which expresses your response:

SA = strongly agree
A = agree
? = not sure
D = disagree
SD = strongly disagree

1. The problem of mental retardation is often misunderstood.

2. Retarded children should be allowed to go to school.

3. The majority of retarded children possess potential for vocational competency.

4. Unkind remarks should not be made about mentally retarded people.

5. Public money spent on educating the mentally retarded child should be considered a good investment.

6. I should speak to others about my concern for the welfare of the mentally handicapped.

7. Only a very small percentage of the mentally retarded should be institutionalized.

8. Private industry should hire mentally retarded workers.
9. Workers should have in-service training in getting along with handicapped workers.

10. The employer should know if a worker is mentally handicapped.

11. The federal, state, and city governments should hire the mentally handicapped.

12. Fellow employees should know if another employee is mentally handicapped.

13. The fact of mental retardation should make a person eligible for extra benefits:
   a. academically.
   b. socially.
   c. economically

14. Mentally retarded people do not have the same emotional needs as average people do.

15. Extra money should be spent on the education of the gifted rather than of the mentally retarded.

16. Parents of a retarded child should keep him at home rather than institutionalize him.

17. Educating the retarded child is a waste of money.

18. Marriage is the solution to the problem of what to do with a young woman who is mentally retarded.
19. Parents are to be held responsible for the welfare of the mentally retarded child.

20. Love is enough to solve the problems of the mentally retarded.

21. Retarded persons should never marry.

22. A contributing factor to rejections of the mentally retarded is the general ignorance about the nature of retardations.

23. Lack of ability to communicate is an adjustment problem for many retarded children.

24. Indifference is a factor in general acceptance of mentally retarded people.

25. The parents of retarded children need supportive responses from society.

26. Insight into the feelings of parents of retarded children should be a personal goal.

27. A teacher of EMH children should strive for empathy rather than achievements.
APPENDIX D
## Appendix D

The Raw Scores from the Performance Test for the Experimental and Control Groups

Raw scores for the Pre-Test and Post-Test for the Experimental and Control Groups.

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<th>Subjects</th>
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The dissertation submitted by Mary Harding Bell has been read and approved by the following Committee:

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Sr. Constantine Sommers,
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The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Education.

January 22, 1974
Date

Director's Signature