A METHOD FOR EVALUATING THE BASIC PHILOSOPHIES OF TEACHERS THROUGH THEIR ATTITUDE TOWARD CURRICULUM

A Dissertation

Presented to

the Faculty of the Graduate School
University of Houston

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

by Charles Marvin Kelso August 1955

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Problem. The two-fold purpose of this study was to develop and validate an attitude inventory which would measure a teacher's philosophy through his attitude toward curriculum and to demonstrate its uses. Two major hypotheses were investigated: (1) between the two extremes of philosophy there is a common ground, eclecticism, a philosophy of its own; (2) basic philosophies of teachers can be tested by taking inventories of their attitudes toward curriculum. Three minor hypotheses were also investigated: (1) there are differences between the philosophies of teachers as individuals and as groups; (2) the philosophy of the teacher is influenced by the institution in which he was trained; (3) the philosophy of the teacher is influenced by his experiences.

Procedures. An attitude inventory of two parts was compiled, Part I being a test of the teacher's attitude toward curriculum, and Part II a test of his classroom practices. This inventory was refined through the opinion of experts. It was administered to 175 elementary teachers. Correlations were made between Part I and Part II scores;

between Part II scores and retest scores; between Part II scores and the Minnesota Teacher Attitude Inventory scores; between Part II scores and scores supervisors gave Part II subjects, individual correlations here being made both on the total score on Part II and on each item.

Findings. It was found through correlations that the instrument developed was valid for the purpose of testing the basic philosophies of teachers. Part I and Part II had a correlation coefficient well above the five per cent level of confidence. The relationship between scores on Part II and a retest was at the one per cent level. Part II scores and Minnesota Teacher Attitude Inventory scores gave a correlation coefficient of better than the five per cent level. The correlation coefficient between the teachers! own total scores and scores given them by supervisors was above the five per cent level; but when it was computed item by item using the same teachers and the same supervisors, a correlation coefficient at the one per cent level was obtained. It may be stated that the philosophy of teachers can be tested through an inventory of their attitude toward curriculum; that the instrument developed for this purpose proved valid; and that between the two extremes of philosophy there is a common ground which forms a

philosophy of its own, eclecticism, in which the teacher may be conservative in one respect, liberal in another, choosing the best from both extremes, resulting in a sane mid-ground philosophy. An investigation of the minor hypotheses indicated that the philosophy of a teacher is influenced to some degree by the institution in which he was trained, that there is reason to believe that a teacher's philosophy is influenced by his experiences, that the women are a bit more progressive than the men; that Negro teachers lean slightly to the conservative side; that there are differences between the philosophies of teachers as individuals and as groups. This fact can be used to determine the philosophy of a school through the testing of its individual faculty members, thus indicating the extent to which the school deviates from conservative practices and approaches progressive ones. It follows that the inventory supplies usable personnel data, serving as a score sheet to be used by administrators and supervisors to evaluate a teacher's attitude and compare their evaluation of him with his evaluation of himself. It can further be used in this same manner by administrators to determine the extent to which the philosophy of supervisory personnel influences the philosophy of the school.

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Charles Marvin Kelso

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CHAPTER I

INTRODUCTION

Statement of Problem

Much has been said about progressive education.

Educators have been criticized for being too progressive or not progressive enough. Some people refrain from using the term "progressive" and when forced to convey the idea will use the words "liberal" or "modern." Besides a need for a definite definition of progressivism, eclecticism, or any other type of educational philosophy, there is a definite need for a test which will indicate the philosophy of school people.

Purpose

The major purpose of this study is to develop and validate a test or attitude inventory which will indicate the philosophy of a teacher through his attitude toward the curriculum. It is also the purpose of this study to demonstrate some of the uses which may be made of the test.

The test can be used to indicate any significant differences between the philosophies of the teachers of the white faculty and those of the Negro which would make them

incompatible in working together as an integrated faculty.

This study should be of service to boards of education in formulating policies concerning employment of Negro teachers in integrated systems.

It is important that a board of education have as much objective data as possible on each employee of the school. Since a teacher's philosophy is generally conveyed to the personnel director of a school system in a subjective manner, an attitude inventory would supply additional objective evidence of value to personnel offices.

The test can serve as a score sheet to be used by administrators, including supervisors, to evaluate a teacher's attitude. Comparisons can be made between the supervisor's evaluation and the teacher's evaluation of herself. This study should be of service to those wishing to make further study requiring the comparisons of groups of teachers whether the groups be divided according to race, sex, faculties, amount of experience, teaching field, or college attended.

Definition of Major Terms

Progressive Education: the designation of a reform movement in education (first used in founding the Progressive Educational Association in 1919) that represented a protest against formalism and was the

outgrowth of a number of psychological, social, and artistic doctrines; more recently progressive education has become identified to a large extent with the pragmatic educational philosophy of John Dewey and with the social doctrines of democracy; emphasized learning by doing, through purposeful activity on the part of the pupil, with considerable regard for individual differences in interest and capacity and for the freedom necessary to carry out these policies.

Pragmatism: (1) the philosophical school of thought, founded in the United States by C. S. Pierce and William James and continued by John Dewey, that holds that the meaning of an idea consists in the conduct it designates, that all thought distinctions consist in possible differences in practice, that thinking is a functional process for guiding action, and that a truth is to be tested by the practical consequences of believing it; (2) in education, the doctrine that views the child as a changing, growing personality and considers learning and teaching as processes of communication and participation that promote the reconstruction of experience.

Philosophy of John Dewey: a pragmatic philosophy of education, formerly known as instrumentalism but now generally called experimentalism, that avoids the metaphysical, holds that both knowledge and value are instrumentally determined, and is strongly oriented toward democracy; has had a profound influence on the progressive education movement in the United States.³

Essentialism: the doctrine that there is an indispensable, common core of culture (certain knowledges, skills, attitudes, ideals, etc.) that can be identified and should be taught systematically to all, with rigorous standards of achievement, it being regarded as a definite adult responsibility to guide education in this direction; presupposed, not that an individual pupil

Carter V. Good, Dictionary of Education, p. 314.

²<u>Ibid.</u>, p. 304.

³Ibid., p. 296.

freedom is to be dismissed, but rather that such freedom is to be made an aim or achievement instead of a means of education.

Perennialism: a movement which holds that the only hope for sound education—and indeed for a sound culture—is through restoration of the spirit which governed education during the Middle Ages. The perennialist is not so much interested in emphasizing the social heritage as he is in emphasizing eternal, absolute principles of truth, goodness, and beauty which are outside space and time—which are in profound sense everlasting and therefore perennial. The medieval system of education was, in essence, dedicated to the search for "first principles" of this nature. The aim was to search out, by means of logical analysis, such invulnerable and deductively certain axioms that everyone possessing the necessary intellectual equipment would recognize them selfevidently for what they are. 5

Reconstructionism: agrees up to a point with the perennialist; there is a desperate need for clarity and certainty, for our civilization is beset with frustration and bewilderment. It radically disagrees, however, with perennialism's solution. Instead of returning to the Middle Ages, it would attempt to build the widest possible consensus about the supreme aims which should govern man-kind in the reconstruction of world culture. These aims can be delineated through cooperative research. The world of the future should be a world which the common man rules not merely in theory, but in fact. It should be a world in which dream of both ancient Christianity and modern democracy are fused with modern technology and art into a society under the control of the great majority of the people who are rightly the sovereign determiners of their own destiny.6

Eclecticism: (1) the practice of formulating a

⁴Ibid., p. 155.

⁵Theodore Brameld, <u>Ends and Means in Education</u>, 1950, pp. 14-15.

^{6&}lt;u>Ibid.</u>, pp. 15-16.

composite body of thought made up of views chosen from various systems, especially the borrowing of doctrines from differing philosophical schools or religious sects; (2) a school of philosophy that endeavors to construct a coherent and harmonious system of thought or belief by adopting selected beliefs from various rival schools or systems.

Limitations of the Study

Because the writer wished to administer personally the tests used in gathering the data, it was necessary to establish certain limitations. The study was limited to those school districts in Brazoria County which contain both Negro and white elementary schools. Only the teachers and the principals of the first six grades were studied because the instrument used contains items that are more significant to teachers of those grades taught in a self-contained classroom.

Setting for the Study

The schools in southwestern Brazoria County were studied because they contained both Negro and white faculties. The Velasco, Lake Jackson, and Jones Creek schools of the Brazosport Independent School District were excluded from the study because the number of teachers involved

Carter V. Good, Dictionary of Education, p. 144.

would be too great in proportion to the number of Negro teachers studied in that area. The selection of the Fleming and Clute Schools was considered by the administration of the Brazosport Independent School District as a fair representation of the white elementary teachers of that district. With the above mentioned exceptions the unshaded territory in Figure 1 represents the geographic region of the investigation. The location of Negro schools in Brazoria County follows the pattern set by the plantation areas in pre-Civil War days. This area is confined to the southwestern section of the county and that portion of the county which reaches up both sides of the Brazos River to the county line.

Fifteen elementary schools, nine white and six Negro, in five different school systems were studied. Each superintendent was contacted by letter and his permission gained to give the test to the teaching personnel in his school. But a concerning the philosophy of the teachers were obtained by tests administered to the teachers, principals, and supervisors. When there was no supervisor, the superintendent did the checking necessary.

In these schools the test was administered to one

See Appendix A for this letter.

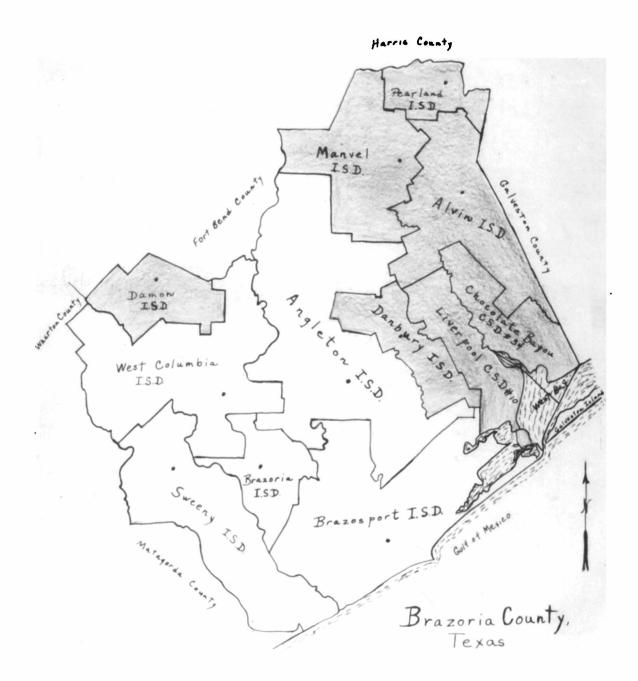


Figure 1. Geographic Region of the Investigation.

hundred and thirty-five white teachers and forty Negro teachers, a total of one hundred and seventy-five. These figures and the number of subjects in each school system are to be found in Table I.

Plan of the Study

This investigation tests two major hypotheses and three minor hypotheses concerning the philosophy of the classroom teacher. The major hypotheses were as follows:

There is a common ground between the two extremes in philosophy which forms a philosophy of its own.

The basic philosophy of teachers can be tested by taking an inventory of their attitudes toward curriculum.

Minor hypotheses were the following:

There are differences between the philosophies of teachers as individuals and as groups.

The philosophy of the teacher is influenced by the institution in which his training was received.

The philosophy of a teacher is influenced by his past experiences; for example, his teaching experience in definite fields.

Methods of Procedure

Data were secured by administering the following tests 5 to the teachers: Part I, a test of the teacher's

⁹see Appendix B.

TABLE I

NUMBER OF TEACHERS IN THE FIRST SIX GRADES IN SCHOOLS OF SOUTHWESTERN BRAZORIA COUNTY TO WHOM TESTS WERE GIVEN

School Districts	Schools Tested	White Teachers	Nebro Teachers	Total Teachers
Angleton	5	43	12	55
Brazoria	2	10	4	14
Brazosport	3	47	7	54
Sween y	3	21	11	32
West Columbia	2	14	6	20
Total	15	135	40	175

attitude toward curriculum; Part II, a test of classroom practices. These tests were administered by this investigator. There was a total of sixty-five questions in Part I. The test of classroom practices contained a total of fifty questions. The Minnesota Teacher Attitude Inventory was administered to eighty teachers who had previously taken Part I and Part II.

Treatment of Data

For the purpose of convenience, the following divisions of the subject matter of the study have been adopted.

A review of the literature related to the basic philosophies being considered. Reviewing the literature on the basic philosophies used in this study necessitates a categorizing of the definitions listed in that portion of this chapter under <u>Definition of Major Terms</u>. These definitions range from extreme progressivism to extreme essentialism. Progressive education, pragmatism, and the philosophy of John Dewey will be treated as progressivism. Perennialism and essentialism will be treated as conservatism. Reconstructionism and eclecticism will be considered the midpoint or common ground between the two extremes.

Progressivism covers the field of education all the way from administration to classroom practices. It deals

with all problems from the most abstract statements of philosophy to the specific outcomes of the educative processes. It is necessary for the purpose of this study that Chapter II should discuss progressivism from the general and abstract point of view and then proceed with a more definite phase related to the classroom practices of curriculum, because the instrument developed in Chapter III attempts to measure such practices. The Education Index 10 refers interchangeably from the activity method to progressive education. The activity method is so definitely a phase of progressive education that in the review of literature it is treated separately.

The validation of the test. The selection of the items for the test is described along with the sources of the items in Chapter III. Poor items were eliminated through advice of members of a seminar and a workshop. The test was further refined through the combined opinion of sixteen experts. It was still further validated by correlating the scores on the two parts and by correlating the scores with those made by the same subjects when evaluated by principals and supervisors.

¹⁰ Dorothy Ross Carpenter and Elizabeth L. Miller (ed.), Education Index (New York: H. W. Wilson Company, 1953), p. 1479.

Purposes for which the instrument may be used. Chapter IV demonstrates the following uses to which the test can be put: (1) to show the philosophy of a teacher training institution; (2) to test the philosophy of teachers in each grade or subject-matter field; (3) to demonstrate the relationship of philosophy to years of experience; (4) to show the philosophy of a school through the testing of its individual faculty members; (5) to determine the extent to which the philosophy of supervisory personnel influences the philosophy of a school; (6) to determine the differences in educational philosophy between sexes; (7) to determine the differences in educational philosophy between white teachers and Negro teachers.

Summary and conclusions. The summary, as found in Chapter V, will bring the outcomes of Chapters II, III, and IV together so that the conclusions based on the hypotheses can be presented.

CHAPTER II

REVIEW OF THE LITERATURE

Progressivism

The definition of progressive education as set forth in Chapter I is a concise statement by an author who is an authority on definitions. A review of the literature on progressive education should begin with a more elaborate definition of the term. Carleton Washburne gives one of the most recent explanations of progressive education in his book What Is Progressive Education?

Progressive education today is simply education that attempts to apply in the education of children the findings of science, whether these confirm some old ways, or point to better and more effective ones, for helping boys and girls develop their potentialities, as individuals, and as contributing and responsible members of society.

Harold Rugg, with the collaboration and general approval of the subcommittee of the New York Working Committee, Doctors Miles E. Cary, Isaac B. Berkson, and John J. Brooks, states the Progressive Education Association's position with respect to education today. American civilization is in a period of disruptive transition caused by:

Carleton Washburne, What Is Progressive Education?, p. 34.

factors of modern culture: the swiftly accelerating industrialization of civilized ways of living, and the slower, halting, but growing democratization. . . . Men of thought and imagination created this modern scientific and technological way of life and . . . must now insure safeguards for its progress. 2

The danger, says Rugg, lies in the threst of totalitarian dictatorship. In our democratic way of life the people must give consent to the acts of their leaders. They are now faced with momentous decisions which require a high level of understanding among them. He emphasizes progressive education as an important function in this integration of the culture with these words:

The "Eight Year Study" of the Commission on the Relation of School and College (1933-1941) proved to the satisfaction of distinguished college leaders--among them was Dean Hawkes of Columbia--that the forms of progressive education practiced at that time were actually more educative than the parallel courses of the conventional schools. The records showed that the graduates of progressive schools were more competent, more creative, more alert and intelligent after four years of the new type of high school education than their mates in the mass public schools. They won more academic prizes; they had more intellectual skill and information; they were more systematic and objective in their thinking, knew more about the meaning of life and education, and had a deeper and more active intellectual curiosity. They were markedly more concerned about the life of their own community and of the crucial affairs of the

Harold Rugg, "A Proposed Statement of Policy for Progressive Education," Progressive Education, Volume 31, pp. 31-40.

^{3&}lt;sub>Ibid.</sub>, p. 33.

world outside. When left to their own resources, they initiated more important and stimulating non-academic activities.4

A child-centered program alone is not enough. The educational problem must be attacked from both psychological and social points of view, but a program of education for disciplined thought and imagination is lacking. Rugg goes on to say:

We must learn how to use the school, in cooperation with all other educative institutions, in furthering the building of that life of physical and spiritual abundance and democratic behavior that is now potentially within the grasp of our people.⁵

This, he continues, means that our energies must be spread to adult as well as to child and youth education if we are to point out the problems of an industrial-democratic culture and the dangerous impact the authoritarian way of life may have upon it. He further points out that the central imperatives of civilization and education today are: (1) that we should practice the principle of the equality and rights of men, regardless of race, color, or creed; (2) that we should establish a complete Bill of Rights and Duties in the economic sphere; (3) that the American people must learn how to use education to further the building of more

⁴Ibid., p. 35.

⁵<u>Ibid.</u>, p. 35.

permanent conditions for world peace; and (4) that there must be freedom to inquire and teach concerning these problems. School is an enterprise in guided living. Teachers must not be propagandists; they must not indoctrinate for any special cult or concept. The chief theme of this new policy lies in disciplined intelligence and imagination through rigorously disciplined materials. He theorizes, then, that the center of attention must be shifted from the elementary to the secondary school. The first fifty years the progressives held the schools to be a true community of parents, children and youth, teachers and administrators with a "community-centered" school. Today they believe in the "education-centered" community, not merely "school-centered."

W. Kenneth Richmond, writing for the London Times

Educational Supplement, says that there are two points of

view in education which he terms traditional and progressive.

He feels that the proponents of the different points of view

should get together on common ground rather than to fight it

out. He thinks that it is possible to accept some of one

⁶Ibid., pp. 35-40.

^{7&}lt;u>Ibid.</u>, p. 38.

point of view and some of the other. He published in this article a table in which he proposed to represent the extreme positions of the two views by summarizing the pros and cons of the argument. He admits that the table could be extended further, but he left out some items which must be added in order to present the desirable literature at hand should we wish to categorize excerpts from literature according to the items of his table.

According to Richmond, the traditional point of view holds that education is primarily a preparation for life, while the progressive point of view holds that education is indissociable from living. To uphold the progressive point of view, Mort and Vincent say that "to replace our generation with a rising generation that is at least as competent to cope with the problems of community, state, nation, and world as the older generation "ll is a very important purpose in bringing up children. Boyd H. Bode emphatically states that "progressive education gets off the track

⁹w. K. Richmond, "Perennial Controversy: Looking Forward and Looking Back," <u>Times Educational Supplement</u>, 2012:987, November 20, 1953.

¹⁰Ibid.

Paul R. Mort and William S. Vincent, A Look at Our Schools, p. 64.

whenever it fails to keep alive a realizing sense that it represents a distinctive and challenging way of life. 12

J. Wayne Wrightstone states, "Education must improve steadily the quality of human relations among pupils. Bode presents two modern schools of thought:

One emphasizes the need of making education a direct preparation for life; the other emphasizes the importance of full and free development. The former prides itself on its application of scientific method to the problem of the curriculum; the latter poses as the champion of childhood's right to live a life of its own.14

Psychology has been appealed to, and it has put its stamp of approval on both schools of thought. Washburne presents, "The progressive school tries to help children and youth to learn to adjust to each other and the world around them. "15

The traditional point of view, says Richmond, regards the learning process as the acquisition of knowledge, while the progressive point of view shows the learning process as the acquisition of experience. Bode believes that "in a

¹²Boyd H. Bode, Progressive Education at the Cross-roads, p. 56.

¹³wrightstone, Meister, "what's Ahead in Experimental Education," Looking Ahead in Education, Bureau of Reference, Research and Statistics, Board of Education, New York City, p. 23.

¹⁴Bode, op. cit., pp. 86-87.

¹⁵ Washburne, op. cit., p. 22.

¹⁶ Richmond, loc. cit.

democratic system of education . . . we educate people in order that they may discover their needs 17 instead of starting with their needs and educating people to fill these needs. He further states that education is supposed to prepare for membership in the social order and that learning is a process by which experiences are changed so as to become more serviceable for future guidance. 18 Prescott states a basic principle concerning experience by asking a question. "Is it more important that children develop adjusted. integrated personalities or that they fulfill some other traditional academic objectives? #19 He defines education as "giving children a chance for the progressive accumulation of meaningful experiences that will reveal the world as it is and helping children to organize their experiences into generalizations, attitudes, and value concepts. *20 A study by Mitchell showed that elementary school children educated in a "Child Development" curriculum made superior gains in the acquisition of reading

¹⁷ Bode, op. cit., p. 70.

¹⁸ Bode, op. cit., pp. 36-41.

¹⁹D. A. Prescott, "Emotion and the Educative Process," American Council on Education (Washington, D. C., 1938), p. 137.

²⁰ Ibid., pp. 194-195.

skills, 21 while Blayne proved that children with this type of elementary training maintain the reading skills achieved in the developmental program when they became high school students. 22 Mort and Vincent hold that:

When schools must train pupils to play parts in a real world, the school is most successful which is as real and as like the world at its best as is possible. 23

Latin has been dropped from the curriculum because it did not offer a life-like situation and presented no specific problems for children to solve. The best way to develop character is to test it, try it, and practice it in a life situation. 24

The traditional point of view holds that the requirements of adult life and society ought to determine the aim, while the progress point of view prefers that the pupils' present needs should provide the starting point. 25 This

²¹ Mary Alice Mitchell, "Reading and the Elementary Program," <u>Journal of Educational Research</u>, No. 41, (March 1948), pp. 532-540.

Thornton C. Blayne, "Retention of Skills Acquired in Developmental Reading Programs," School and Society, Vol. 63 (January 12, 1946), pp. 37-39.

²³ Mort and Vincent, op. cit., p. 13.

²⁴ Ibid., p. 12.

²⁵ Richmond, loc. cit.

idea of progressive education is set forth by Carleton Washburne when he states:

Helping children to develop good mental health helping them to achieve inner poise, self-confidence, happiness, and ability to work and play successfully with others, is a fundamental purpose of progressive education. 26

He is convinced that everything concerning the classroom, the teacher, methods of teaching, and classroom experiences must be geared to this purpose. Only such knowledge or skill is taught as can function in the lives of children and youth.²⁷ Need is paramount, as shown by the following:

The progressive school provides as many opportunities as possible for the growing child to satisfy his needs and express himself, in ways that will not interfere with other people or with other needs of his own.28

As a physician diagnoses and treats individual cases according to his knowledge of cases with similar symptoms, so the teacher does not waste time on individual needs because they can be treated in groups with common needs. 29 Bode contends that pupil interests and pupil needs are the two factors

²⁶ Washburne, op. cit., p. 146.

²⁷ Ibid.

^{28&}lt;sub>Ibid.</sub>, p. 20.

²⁹ Vivian T. Thayer, C. B. Zachry, Ruth Kotinsky, Reorganizing Secondary Education, pp. 40-41.

controlling educational procedures. 30

The traditionalists use logical methods while the progressives prefer a psychological approach, says Richmond. The most inefficient way to train the mind is to concentrate solely on the mind. . . The mental, emotional, and bodily processes are marvelously integrated. According to Prescott, the maturing of character and personality is the basic aim of education; and according to Mort and Vincent, we should strive to develop each youngster to the highest degree which he is individually capable of attaining. 34

Richmond believes that the traditional point of view tends to concentrate on intellectual development, while the progressive point of view emphasizes the need for all-round development. The whole program of progressive education is, therefore, directed toward the development of character,

³⁰ Bode, op. cit., p. 73.

³¹ Richmond, loc. cit.

³² Mort and Vincent, op. cit., pp. 15-16.

³³Prescott, op. cit., p. 126.

³⁴ Mort and Vincent, op. cit., p. 64.

³⁵ Richmond, loc. cit.

according to Washburne, but progressive education sees the body, emotion, and mind as parts of the whole child, continuously influencing each other. 36 Mort and Vincent, too, agree with this, for they say that neither mind nor emotions can be efficiently educated without making sure of a healthy body. 37

Proponents of the traditional point of view, says Richmond, insist that the content of the curriculum has its own intrinsic value; but the progressives put growth before subject matter. ³⁸ The most familiar and characteristic doctrine of the progressive movement in education is that education is growth. ³⁹ Instead of teaching subjects, we teach children. Kilpatrick points out this fact:

We are properly concerned with our children that they shall grow, and only secondarily with the subject matter that it be learned. The older view seems to reverse this order. 40

Kimball Wiles thinks that evidence of successful teaching lies in the amount of progress pupils make, not in their

³⁶ Washburne, op. cit., pp. 144-152.

³⁷ Mort and Vincent, op. cit., p. 16.

³⁸ Richmond, loc. cit.

³⁹Bode, <u>op</u>. <u>cit</u>., p. 73.

⁴⁰w. H. Kilpatrick, Foundations of Method, p. 346.

final achievement. 41 John Dewey had some definite ideas about growth:

Growth is regarded as having an end, instead of of being an end. . . Since growth is the characteristic of life, education is all one with growing; it has no end beyond itself. The criterion of the value of school education is the extent to which it creates a desire for continued growth and supplies means for making the desire effective in fact. 42

Prescott agrees with this belief:

Finally the evaluation of pupil progress must be in terms of personality development, rather than in terms limited to the description of increase in specific knowledges and skills. 43

According to Tyler, the appraisal of progressive schools is concerned with the following things: (1) the use of the major educational objectives as a basis for procedure; (2) appraisal outside tests and examinations; (3) a cooperative activity which gives individual schools an opportunity to develop new appraisal instruments. 44 He says:

Appraisal is important in any educational experimentation... The purpose of the evaluation program is to develop procedures by which we may determine the changes taking place in these girls and boys and thereby enable each school to discover year by year the degree to which it is accomplishing its significant

⁴¹ Kimball Wiles, Teaching for Better Schools, p. 324.

⁴² John Dewey, Democracy and Education, pp. 60-62.

⁴³Prescott, on. cit., p. 195.

⁴⁴R. M. Tyler, "Appraising Progressive Schools," Educational Method XV (1936), pp. 412-414.

educational purposes, 45

The concept of freedom as a natural gift instead of something for conquest is best exemplified in the words of Carleton washburne:

Just as the first war "to make the world safe for democracy" resulted in an increase in the dictatorships in the world, so the second world war left us with a still greater menace of world-wide autocracy. Increasing our military might and using it in victorious wars, in both cases were followed by an actual increase in the extent of autocracy in the world, not by an increase in the democracy for which we avowedly were fighting.

The way to combat autocracy is through strengthening democracy. The strengthening of democracy is a primary goal in progressive schools. 46

The progressives make no appeal to authority because they feel that authority is oppressive, as illustrated in these statements by Washburne and Rugg:

Progressive education . . . is simply the ongoing effort to apply the continually increasing findings of science toward helping children and youth to grow up in accordance with the democratic ideal—the fullest possible development of each person's capacities, both as an individual and as a responsible participant in a democratic society. 47

According to the old philosophy, loyalties and truths were handed down to the people by leaders in authority. According to the new, the people adopt

⁴⁵ Ibid., p. 415.

⁴⁶ Washburne, op. cit., p. 38.

⁴⁷ Washburne, op. cit., p. 155.

whatever allegiances and accept whatever truths they discover for themselves. 48

The argument concerning authority can be settled by saying, with Bode, that progressive education centers on the cultivation of intelligence rather than submission to authority. 49

It is held by Richmond that the progressives rely more upon internal self-discipline than upon external discipline. 50 Washburne concurs, saying that progressive teachers stress self-discipline. 51 and further:

The discipline of the progressive school attempts to stimulate and prepare for the discipline of life, self-discipline. It tries to help children see their own goals and to discipline themselves to accomplish them. 52

Kilpatrick joins them in these words:

The old teacher had no fear of imposing his ideas; that was what he was there to do. The newer teacher is always trying to build up a process more adequately creative and self-directing from within. 53

⁴⁸Harold Rugg, American Life and the School Curriculum, p. 271.

⁴⁹ Bode, op. cit., p. 60.

⁵⁰ Richmond, loc. cit.

⁵¹ Washburne, op. cit., p. 53.

^{52&}lt;u>Ib1d</u>., pp. 51-52.

⁵³w. H. Kilpatrick, Remaking the Curriculum, p. 55.

Richmond's table shows that a teacher uses pupil participation wherever possible in lieu of keeping the teacher firmly in control. Mort and Vincent stress speech as a means of discussion and transfer of ideas. Pin-drop order does not further the modern method. Kilpatrick's discussion of the matter can be summarized as follows:

"There is something to learn besides what is written in the books, and a child may learn the one without learning the other. "56

The progressive point of view holds that the teacher's main function is to evoke rather than to instruct.⁵⁷ Mort and Vincent summarize this idea:

It is the job of the master teacher to design these experiences, and, at the right time, to fit them to pupils. . . . To develop growing children as a master gardener develops plants—through careful observation and close attention—is in a word the teaching method of the modern school. It is not an easy method. 58

Washburne states emphatically, "Progressive education is education for democracy." To teach democracy, the teacher

⁵⁴ Richmond, loc. cit.

⁵⁵ Mort and Vincent, op. cit., p. 28.

⁵⁶Kilpatrick, op. cit., pp. 4-6.

⁵⁷ Richmond, loc. eit.

⁵⁸ Mort and Vincent, op. cit., p. 48.

⁵⁹ Washburne, op. cit., p. 49.

must evoke and let the children unfold. If the teacher evokes, there will not be students like those described by Kilpatrick:

Some pupils who make the highest marks—at any rate under some teachers—are afraid to call their souls their own. They can't think independently; they don't know how. They are afraid to trust their own judgment—they hardly have any judgment. If it is in the book, or if the teacher says it, then it's true and that ends it. But surely that isn't the kind of citizens we need in a democratic country. 60

The progressive point of view assumes that interest normally leads to effort. Since "the purpose of education is to mold a people and to contribute to individual effectiveness and happiness," 61 and since the law of readiness indicates happiness as an end, one needs only to suppose interest as a factor of readiness to preclude the validity of the original hypothesis.

The progressives would have the school kept as informal as possible. Entry believe it is better to have group work, fluid timetables, moveable furniture, and so forth than to streamline the classes and use set time tables in rooms full of fixed desks. Mort and Vincent contribute

⁶⁰Kilpatrick, op. cit., pp. 4-6.

⁶¹ Mort and Vincent, op. cit., Foreword, p. v.

⁶² Richmond, loc. cit.

the following to this phase of progressivism:

The most inefficient way to teach spelling, hand-writing, grammer, and geography is to spend twenty minutes learning fifteen words from a spelling book, the next fifteen minutes on practicing handwriting exercises from a copy book, the next forty minutes on a discussion of participles and gerunds, and forty minutes on the natural resources of California. This is the 1900 method. 63

Anderson stresses the fact that time allotment is not an accurate measure of the attention paid to a subject. 64

Time is often wasted in filling rigorous set schedules.

Ernest Horn has done recent investigations concerning spelling. He finds that schools devoting small periods of time to spelling are as successful with their program as schools which spend more time on formal spelling. 65

Education is a dynamic, changing thing. Scientific advancement is the cause of changing methods of education. Civilization is no longer static, so teachers cannot give answers to problems in advance. The teacher in a fixed civilization can teach pupils what to think. Teachers in a

⁶³ Mort and Vincent, op. cit., p. 17.

⁶⁴Archibald W. Anderson, "The Charges Against American Education: What Is the Evidence?", Progressive Education, Vol. 29 (January, 1952), p. 93.

⁶⁵ Ernest Horn, "Spelling," Encyclopedia of Educational Research, (Revised Edition), p. 1256.

changing civilization must teach pupils how to think. 66
The term progressive education denotes change.

In broad terms we can say that progressive education is education that is continually progressing. Progressive education has no fixed creed, it has no constant and unchanging body of knowledge to impart, and it has no one method that is always applied. It is alive and growing.

Progressive education is the attempt to keep pace educationally with the progress of science and the progress of humanity.67

Thayer, Zachry, and Kotinsky contend that since education is a social function, it must change with a changing society if it is to become effective. 68 Mort and Vincent summarize the dynamic, changing aspects of education when they say:

Good schools of today are trying to do for today's children and tomorrow's citizens what schools of forty years ago never thought of doing, nor were equipped to do.69

They go so far as to say that all good schools are changing and, assuming that adaptable schools are good schools, are "quick to adapt new knowledge about learning to practical teaching needs."

⁶⁶w. H. Kilpatrick, op. cit., p. 346.

⁶⁷ Washburne, op. cit., pp. 73-74.

⁶⁸ Thayer, Zachry, Kotinsky, op. cit., p. 1.

⁶⁹ Mort and Vincent, op. cit., pp. 1-2.

⁷⁰ Ibid., p. 21.

The progressives strive to make drill purposeful. while the conservatives emphasize drill which requires too much rote learning. Effective drills puts facts in a pattern instead of in unrelated situations. A problem. worthwhile in itself. is studied. As an outgrowth of this study, legible writing, correct spelling, and effective English are taught. Where any one of these fails, drill is required. but it is varied to fit the individual. However, this drill does not take place in a vacuum but is related in some purposeful way to the problem which the pupil is undertaking. Modern teaching has done something more with basic skills than to place basic knowledge in realistic life situations which make drill meaningful. It has expanded the limited concept of only three R's to include all skills used in study, communication, and thinking in today's world. 71

The progressives would create an individual responsibility to the whole of society. This is expressed most clearly by Prescott in the following:

The functions and obligations of education in this area [advancing the public good] are recognized generally. The schools must produce common attitudes in a sufficiently large proportion of the population to insure social stability and progress. To accomplish

^{71 &}lt;u>Ibid.</u>, pp. 18-24.

this, education must convince people of the extent to which their own self-interest is interwoven with the social good. It must re-educate those whose experiences have engendered selfish, asocial attitudes, or goals incompatible with general welfare. It must train children to avoid behavior which will distress other people or jeopardize the safety and well-being of others. Also, schools must help children to understand the nature of social conflicts, to recognize the rights of others in the struggle for security, to tolerate reasonable social experimentation aimed at ameliorating suffering and insecurity, share in the burden of caring for the unfortunate and underprivileged. These seem to be the essential elements of educational policy necessary to social integration. 72

In the progressive point of view it is necessary to recognize individual differences. Children must be given opportunities not only to satisfy their educational needs, but these opportunities must be "within the capacities of the children to comprehend." 73

The traditionalists picture the purpose of education as being the perpetuation of the cultural patterns which happen to prevail in a given community; but the progressive movement, which says that education is growth, repudiates such an argument. 74

Instead of stressing the need for formal drill, the progressive point of view prefers bringing about learning by

⁷²prescott, op. cit., pp. 139-140.

^{73&}lt;u>Ibid.</u>, p. 195.

⁷⁴Bode, op. cit., p. 73.

doing. 75 Marian G. Valentine defends the progressive educators in their use of the word activity by saying:

"Pleasurable activity" and "Creative Power" are not slogans newly minted by "progressive educators." These phrases were used many times by Dr. Maxwell and had been used by Ralph Waldo Emerson years sarlier. 76

Carleton Washburne describes the progressive school as "one of activity rather than silent receptivity, one of cooperative effort rather than passive obedience."

The activity portion of progressive education is so vital to this study that it is expedient to stop here and give a lengthy treatment of activism.

Activism

Activity defined. The whole idea of the activity movement is based on the law of learning, that we learn to do by doing. There is even argument that there is no learning except through activity. One group of authors 78 expresses the firm belief that life and learning flow continuously from one activity to another and that a person is educated

⁷⁵Richmond, loc. cit.

⁷⁶ Marian G. Valentine, "William H. Maxwell and Progressive Education," School and Society, Saturday, June 7, 1952.
77 Washburne, op. cit., p. 41.

⁷⁸Hollis L. Caswell and Doak S. Campbell, Curriculum Development, p. 30.

primarily through participation in activities, as passive learning does not actually exist. In a psychological sense, activity refers to efforts of an organism to adjust to various conditions. This use of activity makes it significant to learning and, therefore, gives a basis for statements made to the effect that there is no learning without activity.

All authors do not have the same opinion about the meaning of activity. One of the first things that one should do, therefore, is to consider further these varying opinions before attempting to arrive at a working definition of the term. Caswell and Campbell⁷⁹ point out that in one sense it is used to indicate a specific way of instructional organization and that with this definition "activity," "unit of work," and "center of interest" are used synonymously. The term "activity curriculum" is a generalized reference to the several terms used above. These two educators use a definition from the California Teachers Guide to Child Development to corroborate their theory of varying definitions.

An activity is any large learning situation brought about by the strong purpose of a child or group of children to achieve a worthy end desirable to themselves, which, like those situations in life through which we

^{79&}lt;u>Ibid., p. 228.</u>

are most truly educated, draws upon a large number of different kinds of experiences and many fields of knowledge.80

In defining activity we must get at its various applications. A plain definition of activity will be of much aid in adapting activities to a curriculum. Gustin and Hayes confuse things more, however, by introducing a term, "Activity Work," which they define as a type of experience for giving the school child varied, interesting and worthwhile activities, by participating in which he grows in the acquisition of certain desirable learnings. 81 The same authors, however, give some light on the relation of units of work and activities. 82 They believe that the unit is not an isolated block complete in itself but that the single unit is made up of all the student activities that go into the work and that a large unit includes information from many curriculum subjects or areas.

Rugg and Shumaker likewise give a relationship, though slightly different, between the two terms: "The difference in range of activities, therefore, is only an obvious surface

⁸⁰ Idem.

⁸¹ Margaret Gustin and Margaret L. Hayes, Activities in the Public School, p. 19.

^{82&}lt;sub>Ibid.</sub>, p. 107.

distinction between the unit of work and the school subject.*83

built around the unit method, one can see that activities constitute a vital part of each unit and are incorporated with the subject matter. 84 Courses of study for the Long Beach, California, schools follow the unit method; and included among the suggested materials, are lists of activities related to the unit. Likewise the Virginia State Course of Study suggests activities for its various units of work. "Things to Do and Talk About" are included in each science unit designated for use in the Maryland State Course of Study.

The term "Activity Curriculum," therefore, suggests either a curriculum made up entirely of activities or at least indicates one that places primary emphasis upon activities. Caswell and Campbell are of the opinion that even though meanings are sometimes confused, first hand experience with people is stressed in all activity definitions, but that it must be recognized that activities may be indicated

⁸³Harold Rugg and Ann Shumaker, The Child-Centered School, p. 227.

⁸⁴ Ibid., p. 227.

on a variety of levels of complexity.85

All educators are to some extent agreed that activity is doing something and that pupils should be given something to do. The difference of opinion lies in how much activity, when to present it, and its relation to other parts of the curriculum. The difference, then, is a matter of degree. Each individual defines activity using a scale which is nothing more than the degree to which he thinks it should be applied.

This confusion in the use of a term--all too common a phenomenon in the field of education--is intensified by the experiences of the committee to consider the activity movement appointed in 1930 by the Board of Directors of the National Society for the Study of Education. Here again arose the problem of terminology. To some, activity referred to play, games, excursions, construction. To others, activity is composed of all action--physical, intellectual, emotional. Still others declared against any use of activity in educational terminology, pointing out that any doing is activity, and that all learning is accomplished by doing.

⁸⁵ Caswell and Campbell, op. cit., p. 228.

and progressive education were also fraught with difficulty for the committee. The lack of unity on the part of proponents of the activity movement—already pointed out—constituted a foremost problem. The range of objectives from the use of activities for a teaching device to use in making life more meaningful proceeds, of course, from the varying values placed upon learning and living.

In the appendix of the same study⁸⁶ there are listed forty-two definitions which were examined for an analysis presented in an early chapter. The following are representative:

An activity curriculum is one based upon a child's real and worth-while experience, and whose outcome results in related and pertinent activities of varied scope. These activities so function that a child realizes his own needs and responsibilities.

The activity curriculum includes and promotes all right phases of a child's development in a well-founded and sustained balance and adjustment so that there is an unfolding of child-nature socially, mentally, emotionally, physically, and creatively.

Since education is life, it follows that the school program to be educational must be life-giving to the body, mind, and spirit—that is, it must tend to produce a sound, accomplished, beautiful body; an intelligent, sympathetic mind; and a sweet sincere spirit.

⁸⁶ National Society for the Study of Education, op. cit., pp. 209-237.

An activity curriculum is a continuous, sequential, progressive, internally organized series of experiences that have their beginning in the child's developmental needs. The child is necessarily identified with these experiences; they include worth-while learnings, and are bounded only by reasonable interest and concept spans.

An activity curriculum, briefly defined, is the totality of normal learning experiences essential to the effective and continuous adjustment of individuals to the changing social order. In other words, it is the entire body of learning activities that effectively contribute to the maximal development of the individual into the most socially efficient person he is capable of becoming at all times.

Successful living requires abilities to make all needed adjustments. Pupils must be left free to form their own purposes, and to act accordingly. The child-centered school seems to place complete reliance in the so-called "natural interests" of the children. Then it follows that these interests must have complete freedom of expression. Hence, the activity program is constructed by the pupils and is not prearranged for them. From our point of view, the best program lies somewhere between two extremes.

Among Webster's several definitions of the term "activity" is the one, "An agent or force that causes change." This is the connotation the word carries for me in the field of education. An activity to be of educational value must make desirable changes in a child. It must help him to grow, enlarge his world, increase his powers and controls, extend his sympathies, heighten his appreciations, and so on.

Activity as applied to the curriculum is merely a word that pictures one of the most obvious characteristics of modern, or progressive, school procedures, the children "active," the mainspring of their behavior functioning from within under the guidance of persons who know how to direct that activity to worth-while educational results. When we use the word "activity," we think of the picture of educational life as presented in such books as Adolph F rrier's The Activity School; and we think of the curriculum as merely descriptive

of such materials, subject-content, and procedures as, in specific instances, may possibly assist and promote desirable educational growth in child life. 87

Historical sketch of activism. Activity is not a new thing. It has been going on as long as has man's education and has a heritage that is ancient and classical. Much of our American activism is based upon the idea prevailing in Europe while our educational system was in its infancy. And we can find that similar ideas existed as early as the Golden Age of Greece. 88

Among those who started the general revolt against bookishness in the school system at the beginning of the modern age were Rabelais, Montaigne, Mulcaster, Milton, and Locke. These men, with their idea that education is very close to nature, gave a good background for the activity movement. Comenius went further with the idea of education's being adjoined close to nature, and Rousseau made growth the end of education. Gustin and Hayes, in showing several centuries of development in American schools, make an interesting contrast between the subject-matter theory

^{87&}lt;u>Ibid.</u>, pp. 209-237.

⁸⁸Cyrus D. Mead and Fred W. Orth, The Transitional Public School, p. 3.

and the total personality theory.89

The <u>Thirty-Third Yearbook</u> of the National Society for the Study of Education of contains a very good sketch of the development of activism in America. As early as 1820 American educators began to feel the need of something more vital than mere information. The influence here came from Pestalozzi. In 1823, Samuel Reed Hall established the Teacher's College, and he advised his teachers * . . . to teach them to exercise their own powers, and elicit their own strength.

Bronson Alcott advocated schools ruled by love rather than by fear. He believed that interest should be the motivating power. His two most prominent ways of employing principles of activism were through physical play and self-government. This seems rather mild compared to some of our new child-centered schools; but it was a start, and the influence was great.

David P. Page made a few criticisms in 1847 in his Theory and Practice of Teaching. He revolted against the idea that knowledge was the end of education. Education,

⁸⁹ Gustin and Hayes, op. cit., pp. 83-85.

⁹⁰National Society for the Study of Education, op. cit., pp. 17-43.

according to Mr. Page, should be a drawing out rather than a pouring in process.

As it is impossible to exhibit satisfactorily the entire historical web of education, we could begin with 1914 as a date and John Dewey as an individual. Since the 1890's the activity movement has gained favor, but it was not until about the time of the first world war that the world really began to emphasize it. By starting with Dewey, we should first recall the influence that his forerunners—Rousseau, Pestalozzi, Froebel, Kant, Herbart—had upon him; and using him as a pivot, we can trace the spread of the movement in recent educational history. 91

Dewey's educational philosophy established the "new school," and other schools of similar type have sprung up all over the world. In the United States we find: J. L. Meriam's School, Columbia, Missouri; Marietta Johnson's School, Fairhope, Alabama; Ethical Culture School, New York City; the Modern School, Stelton, New Jersey; Maraine Park School, Dayton; Park School, Baltimore; Beaver Country Day School, Chestnut Hill, Massachusetts; Helen Parkhurst's Dalton Schools, New York; Chevy Chase Country Day School,

⁹¹ National Society for the Study of Education, op. cit., pp. 37-39.

Washington, D. C.; Walden School, New York; City and Country School, New York; and the Lincoln School, New York.

The Role of Experience. In defining education Dewey leaned toward activism and stated that "education is that reconstruction or reorganization of experience which adds to the meaning of experience and which increases ability to add to the course of subsequent experience. *92 This definition includes more than an implication that one learns by doing. It doesn't even classify the types of experience, but the activists can use the phraseology in their interpretation of experience. Most proponents of activism are probably thinking in terms of the adage that experience is the best teacher. The study has found that they think of experience in the light of actual participation rather than reading of the experience of others.

Rugg and Shumaker speak of learning as a "dynamic, assimilative process" rather than a "passive memoriter process" and point out that learning is most effective under real life conditions and in activities which the learner has helped to initiate and which seem valuable to him. 93

They do not believe in activity for activity's sake,

⁹² Rusg and Shumaker, op. cit., p. 40.

^{93&}lt;sub>Ibid., p. 68.</sub>

but they uphold the type of activity "which is growing toward something mature."94

Modern philosophy with its emphasis on sensation is at the root of the activity movement. To uphold the principle of activism, John Looke, one of the first empiricists, is referred to. Locke promulgated the hypothesis that "all of one's knowledge is derived by reflection from his experiences."

There are, however, modified forms of theories in which experience plays an important part. Kelty⁹⁶ would have us use experiences as a background for learning. She proposes much project material as an attempt to replace teacher-activity with pupil activity. This does not mean that everything in instruction should be experience in a participation sense.

Principles of Activism. The activists really have a purpose, whether it be valid or otherwise. In seeking the direction in which the activists are going, it might be well to consider an activist's definition of curriculum.

⁹⁴ Ibid., p. 60.

⁹⁵ Mead and Orth, op. cit., p. 9.

⁹⁶Mary G. Kelty, <u>Teaching American History in the Middle Grades of the Elementary School</u>, p. 7.

In such a definition should be considered activities, experiences, environment, interests and subject matter—all selected for the over—all development of the child. In discussing the organization of the daily program under an activity setup, Gustin and Hayes suggest for consideration three factors—*the child, the teacher, and the equipment*—with the child in the center or in the spotlight. 97

The new school proposes to have the child as the center. The centering of the school in the child necessitates first the consideration of his needs and interests. In order to find and motivate those interests, subject matter has been replaced with experience. This will take care of the interests, but the problem of needs is the major problem for the activists. Some activists contend that essentials can be taught in this manner. Others go so far as to discredit any standard of knowledge of any type; what the pupil learns in an activity program is as good as what they might be learning otherwise. The activist seeks to impart knowledge through experience other than vicarious experiences. Rugg and Shumaker 98 substantiate the above

⁹⁷Gustin and Hayes, op. cit., p. 66.

⁹⁸ Rugg and Shumaker, op. cit., p. 56.

statement in the following: "Freedom to develop naturally, to be spontaneous, unaffected, and unself-conscious, is the first article of faith." This article of faith is explained more clearly in the following passage:

. . . The emphasis is not upon finished work, skill, and technical perfection, but upon the release of the child's creative capacities, upon growth in his power to express his own unique ideas naturally and fully, whatever the medium.99

Outcomes of Activity Programs. Devey's profound interest in pragmatism was the basis for his assuming leadership in the activity movement. This same interest would cause him to be extremely critical of the results of the program.

- E. E. Oberholtzer, Superintendent of Schools, Houston, Texas, studied the use of an activity curriculum in the fourth and fifth grades in his system. From his study he was able to make the following statements:
 - (1) It is possible through an activity curriculum to maintain as high (or higher) standards of achievement in the skill subjects as are maintained when these skills are taught through traditionally organized subjects executed by a fixed daily teaching schedule. (2) Less time for formal drill is used in the curriculum taught through activities. (3) There is more time and greater opportunity for the development of creative self-expression in an activity curriculum. (4) An activity curriculum permits greater freedom for real education. (5)

⁹⁹ Ibid., p. 64.

Pupils engaged in activities read more general ture than do those following the more formal curricular than do those following the more formal curricular (6) Pupils acquire more information through an activity curriculum. (7) The activity curriculum increased the pupil's interest in school and other worth-while activities. (8) Following a curriculum that is based on activity tends to improve the quality of teachers.

The lack of sufficient material, especially reading material, and the lack of equipment were the chief disadvantages enumerated by most teachers. 100

Many of the outcomes to be expected from activity units are included in the excellent work of Gustin and Hayes wherein the following listing occurs:

(1)... More children are happy in school. (2) Information... has meaning because it is seen in its relationships. (3)... Experiences in arts, music, and literature result in deepened appreciation. (4) The freedom develops habits and attitudes of courtesy, cooperation, responsibility, resourcefulness, and persistence. (5) Unit of teaching provides opportunities for personality growth in the teacher. (6)... Accumulation of valuable materials as the permanent property of the school. 101

Evaluation of Activities. One of the most important factors that should be taken into account when making or revising a program of activities is a matter of geography. Country boys and girls, far removed from urban centers, cannot visit places of interest when visiting involves a

¹⁰⁰ National Society for the Study of Education, op. cit., pp. 136-142.

¹⁰¹Gustin and Hayes, op. cit., pp. 111-112.

trip to the city. When a course of study is planned for both urban and rural schools, the list of activities should be comprehensive. Any teacher should be able to fill her program with activities from this angle. We realize that a proposed list should contain as many varied activities as possible, since such a list is only tentative and not final.

A list of activities, ready for use, is not going to make the program a success. The teacher will need to take much care in selecting the appropriate activities. It is the purpose of the course of study to aid her in accomplishing this.

If activity is to play a very important part in the curriculum, the selection of activities for use must be taken seriously. Also the necessity of guidance of pupils in the selection of activities must be recognized. The importance of activity selection increases even more with greater use of activity. Before setting up criteria for evaluating activities, it is well to look at a set of criteria for evaluating the results obtained by the activists. James F. Hosic sets up the following:

⁽¹⁾ Does this practice make for a more perfect realization of the ideal of the good life than the practice it wholly or partly displaces? (2) Does it more nearly conform to the laws of human variability? (3) Does it take better account of human variability? (4) Is this

practice expedient? (5) What evidence is there that practice in question will do what is claimed for it?102

This set gives a basis for criteria for activities because, in evaluating the method, one can see what is expected of the devices.

Mead and Orth rightly recognize Dewey as a standard for measuring the values of activities. Caswell and Campbell present three criteria for activities which they feel to be ample and basic:

In the first place, an activity in which children engage should be one that they can recognize will help them achieve an end they desire. . . In the second place, an activity should contribute to the realization of the aims of education. . . In the third place, activities should be suited to the physical, mental and emotional characteristics of the individuals who engage in them. . . . 103

In evaluating the large unit, Gustin and Hayes set up extensive criteria in their <u>Activities in the Public</u> School:

(1) Is the problem one which will provide education experience valuable for growth and development of children? (2) Is the problem suited to the abilities of the group? (3) Do the children understand what they are trying to do and are they really interested? (4) Does it involve life situations, especially social ones? (5) Are the available materials suited to the needs of

¹⁰² National Society for the Study of Education, op. cit., p. 199.

¹⁰³ Caswell and Campbell, op. cit., p. 234.

the group? (6) Are accurate and adequate references being used? (7) Are worth-while subject matter learnings actually resulting from several different fields...? Do the children see these learnings in their relationships? (8) Are desirable personality habits being developed? (9) Are there satisfactions resulting from real accomplishments? (10) Is provision made for the right kind and amount of repetition necessary for effective learning? (11) Are the activities sufficiently varied to take care of the needs, abilities, and interests of individual children? (12) Have problems been solved satisfactorily? (13) Has this unit of work stimulated further study in related fields? (14) Are the materials left accurate records of what the class has accomplished? Are these materials properly displayed and later filed for reference by pupils and teachers?

Essentialism

Anti-progressivism. The traditional point of view is well summarized by W. Kenneth Richmond as follows:

la.-Asserts that education is primarily a preparation for life.

2a.-Sees the learning process as the acquisition of *knowledge.*

3a.-Thinks that the requirements of adult life and society ought to determine the aim.

4a.-Uses logical methods.

5a.-Tends to concentrate on intellectual development.

6a.-Insists that the content of the curriculum has its own intrinsic values.

7a.-Regards freedom as being in the nature of a conquest.

8a.-Appeals to authority.

9a.-Requires some form of external discipline.

10a.-Keeps the teacher firmly in control.

lla.-Thinks that the teacher's main function is to instruct.

12a.-Maintains that effort produces interest.

¹⁰⁴Gustin and Hayes, op. cit., pp. 110-111.

13a.-Is convinced that pupils ought to work first and play afterwards--and that any other policy means letting them do as they like.

14a.-Draws a distinction between curricular and extra-curricular affairs.

15a.-Believes in the necessity of good order in the school organization (e.g. "streamed" classes, set time-tables, fixed desks, etc.).

16a.-Stresses the need for formal drills. 105

The literature on the subject of essentialism is presented here as being over and against the progressive point of view.

Charges against progressive education have been discussed separately and by various authors, but Archibald W. Anderson condenses all of them in the following nine:

(1) The schools are neglecting the fundamentals.
(2) The schools have abandoned the time-tested methods of drill and recitation and have substituted inefficient and easy methods. (3) Work has been taken out of school.
(4) The schools have abandoned discipline. (5) There are too many "fads and frills." (6) The schools are wasting time on inconsequential subjects, especially in the social studies. (7) The schools are dealing with controversial issues and leading the young to "socialism." (8) The schools are not doing a good job of preparing young people for college. (9) Young people who attempt to enter the business world cannot hold a job because they cannot read, write, spell, or do arithmetic.106

Such attacks are not new. As early as 1902 an editorial in the New York Sun contained a similar statement.

When we were boys, boys had to do a little work in school. They were not coaxed; they were hammered.

¹⁰⁵Richmond, op. cit., p. 987.

¹⁰⁶Anderson, op. cit., p. 91.

Spelling, writing, and arithmetic were not electives, and you had to learn.

In these more fortunate [1902] times, elementary education has become in many places a vaudeville show. The child must be kept amused, and learns what he pleases. Many sage teachers scorn the old fashioned rudiments, and it seems to be regarded as between a misfortune and a crime for a child to learn to read.107

Over and above the items mentioned in the summaries of Richmond and Anderson, there are excerpts from the literature on the subject which support essentialism or the traditional point of view. Lund says that five per cent or less of parents in his town would want John Dewey if they understood him. He accuses Dewey of making five statements against traditional education which are not familiar to people who accept Dewey:

- (1) There are no eternal truths.
- (2) There is no mind or soul in the traditional sense.
- (3) There are no fixed moral laws.
- (4) Democracy is a moral value.
- (5) Pragmatism justifies Progressive Education. 108

Anthony Part of the English Ministry of Education on a recent visit to the United States expressed his opinion that much of the criticism directed at progressive education arises from the fact that "it is so easy to do it badly." 109

¹⁰⁷Editorial, Oct. 5, 1902, New York Sun.

¹⁰⁸ Albert Lund, "Who Wants Progressive Education," Atlantic Monthly, Volume 191, No. 41 (April 1953), pp. 29-34.

¹⁰⁹ valentine, op. cit., p. 355.

Thayer, Zachry, and Kotinsky bring out a fault of the "new school" which is unusual and is not one of the common objections. They go further than the statements that progressive education contains fads and frills and that there is a great waste of time. They contend that there is too much activity which keeps children in a group and gives them no time for developing habits of reflection. 110

Bode summarizes the general discontent with progressive education in his statement:

To the casual observer, American education is a confusing and not altogether edifying spectacle. It is productive of endless fads and panaceas; it is pretentiously scientific and at the same time pathetically conventional; it is scornful of the past, yet painfully inarticulate when it speaks of the future. The tremendous activity now going on in education is evidence of far-reaching social changes, but we do not seem to know what these changes signify or how they are to be directed.lll

Anti-activism. It has been said that activism has an ancient ancestry. The heritage of books, studies, and subject matter is just as ancient and honorable as that of activities. The reverence for books dates back to the monk toiling devotedly in the scriptorium. Mead and Orth take Rousseau, Plato, and Pestalozzi to task on their statements

¹¹⁰ Thayer, Zachry and Kotinsky, op. cit., pp. 309-311.
111 Bode, op. cit., p. 86.

against the use of books. We should not lose sight of the fact that "all the wisdom of past generations is bound up in books and in subjects." **Inowhedge of subject matter is being given less value in the minds of even the students preparing to teach. The knowing of facts is being replaced by thinking as the thing most needed. The revolution can not be related to the principle that thinking, though stimulated by new data, must have carefully assembled facts as data. If all the data are to be new, there is nothing to begin with even in a scientific experiment.

Rugg and Shumaker fear that too much attention upon activity has clouded the real goal, the mental growth of the child, and they point out that the activity curriculum has produced in many quarters primarily physical activity. Two weaknesses in the child-centered school are pointed out:

The lack of design in the program as a whole, and the lack of respect for and more systematic provision for ideas, for meaning, for intellect, for the power to think, for training in tolerant understanding.113

Mead and Orth have a similar attitude toward too much emphasis upon activities:

. . . In pursuing activity-experiences, with only chance reference use of subject matter, we are liable

¹¹² Mead and Orth, op. cit., p. 27.

¹¹³Rugg and Shumaker, op. cit., pp. 112-141.

to lose the sequence of development in a skill or a phase of knowledge which few would be so bold as to discard. In other words we are liable to get nowhere. 114

Rugg and Shumaker are in agreement with Mead and Orth on the subject of developing skills. The latter's attitude is crystallized in <u>The Transitional Public School 115</u> wherein a store project is discussed. In building a store, a class found that the dimensions involved came out in fractions of inches. The teacher then decided the time was ripe for the study of fractions. What the children would have done for a knowledge of fractions had the problem not arisen in the project constitutes the objection raised.

Eclecticism

In preceding sections of this chapter, thinking concerning methods of educating children has been catalogued at two extremes. Many heads of schools, however, are trying to bring the two points of view together without launching headlong into a program of activity which might cause lasting injury to the particular system. Those who recognize the value of both sides of the argument would welcome a synthesis. There can be no doubt as to an existence of a

¹¹⁴ Mead and Orth, op. cit., p. 32.

^{115&}lt;sub>Ibid</sub>., pp. 136-139.

real conflict; in fact, since 1890 we have had the mental disciplinists versus the revolutionists. The former, made up of the university and school administrators and the subject-matter specialists, "hold the criteria of education as being discipline, logical thinking, power of sustained intellectual effort, the retention of classified knowledge." The other group has "focused attention upon the continuous growth of the child, upon freedom, initiative, spontaneity, vivid self-expression." 116

The dominance of instruction in either activities or in subject matter fields seems, therefore, to be the issue which finally emanates from the controversy.

Carleton Washburne in his book What Is Progressive Education? states:

There have always been good teachers whose sympathetic understanding of children, whose common sense and personality resulted in their using methods that today we call progressive or modern and which science has helped to understand.117

He goes on to say that educators and administrators can help teachers use methods which were actually discovered by great thinkers through the past centuries. Washburne makes the above point clearer further along in his book:

¹¹⁶ Rugg and Shumaker, op. cit., pp. 23-29.

¹¹⁷ Washburne, op. cit., p. 33.

Very few progressive teachers do not carry over some of the traditional ideas and practices of their own early training, and few do not yield to what too many parents, reflecting their early training, expect of them and very few traditional teachers do not show the influence of scientific research and the broader objectives of progressive education. Teachers shade from mainly traditional to mainly progressive, and a majority of teachers come near the middle, but in regard to purposes and methods, there are sharp contrasts between the tradditional and progressive types of education. 118

Caswell and Campbell, however, strike nearer the happy medium by placing emphasis on both subjects and activities, or on either one or the other depending upon the end desired in the particular situation:

... The oft-quoted statement, "we learn to do by doing," is fundamentally sound. It suggests a truth generally recognized by psychologists. But, it does not follow that some children are active and others are not, or that overt physical activities are of superior educational worth to intellectual activities. Rather, some children are more active than others, some schools emphasize certain types of activity and others other types, and the educational worth of activities is determined by the characteristics of the individual and the nature of the outcomes desired. 119

To mention the outcomes desired strikes a new note in the discussion. Rugg and Shumaker see a wide difference between the aims of the formalists and the activists. The formalists are interested in the end-point of education, the finished product of adulthood, and work toward the learning

^{118&}lt;sub>Ibid.</sub>, p. 143.

¹¹⁹ Caswell and Campbell, op. cit., p. 232.

of certain skills, ideas, and habits. The activists probably are overemphasizing the self-expression phase. Self-expression is the best method of learning, but the things about which the pupil expresses himself should include all of the material possible which contains important factors in understanding and the acquiring of skills.

Extended discussion of active and passive schools leaves the impression that some schools have activities while others do not. Caswell and Campbell, however, discredit this impression by pointing out that there is activity—such as reading, reciting, working problems, and even throwing erasers—in the most traditional classroom. They feel that activity is present in all types of good classroom situations but differs in kind and variety. It is not present in one situation and absent in another. 121

In a similar vein, Mead and Orth say definitely that subjects and genuine familiarity with subject-matter should not be cast aside and quote several progressive authorities who take about the same point of view--Kilpatrick, Bonser, Horne, Judd, and Graves. 122

¹²⁰ Rugg and Shumaker, op. cit., p. 117.

¹²¹ Caswell and Campbell, op. cit., p. 230.

¹²² Mead and Orth, op. cit., pp. 33-36.

One author gives a very definite avenue through what eclecticism can work:

Both conventional and experimental schools ought to engage further experimentation and reform in their practices in order to prepare the pupils for intelligent social participation. 123

Those practices which are best are judged best by
the teacher in relation to her past experiences. Through
constant vigilance a teacher can select those methods, those
activities, and those curriculum contents which are working
well for other people and try them herself. This is a progressive principle, but the selection could be of traditional procedures, practices, and services. Therefore it is
eclectic in its fusing of conservatism and progressivism.

Summary

More than ten years ago John Dewey predicted that the term "progressive education" might pass from educational literature. He believed its best would be absorbed in the American scene, but he did not foresee that it would be associated with the introduction of communism, un-Americanism, and other evils into American schools. 124 Redefer describes

¹²³J. W. Wrightstone, Appraisal of Experimental High School Practices, p. 194.

¹²⁴Frederick L. Redefer, "Progressive Education To-day," The Educational Forum, May 1953, pp. 395-400.

it as being, "not an integrated, unified movement but a spirit--a youthful willingness to examine and explore." 125 He cites Carleton Washburne's definition of it as a movement--not a series of specific practices--an effort to apply to education, to classroom methods, to curriculum organization, and to school administration the new findings in science and society.

It is evident in most every American school--not complete and whole--partial but good. . . . In elementary schools over the country one can see many progressive education practices. In all schools one can see some. . . . The attractive classrooms, the good human friendly relations between the teachers and children, the richness of the learning experiences within the classroom, the better use of books and the increasing use of other tools of learning, the field trips, the community excursions--there is the progressive education movement. . . . Progressive education is part and parcel of the American school system, and it cannot be destroyed without destroying education itself. 126

The activity method has existed as long as has man's education. Those men with the idea that education is very close to Nature, gave a very good background for the activity movement. In America, as early as 1820, educators began to feel that something more vital than information was needed. From this early influence of Pestalozzi, we see the discontent with the traditional school being augmented by Samuel

¹²⁵ Ibid.

¹²⁶ Ibid. Citing Carleton Washburne's What Is Progressive Education?

Reed Hall and Bronson Alcott, who advocated interest as motivation and the child's own strength and power as the means of gaining the end, and by David P. Page's revolt against the idea that knowledge was the ultimate end of education.

A definite educational movement pivots from Dewey and the beginning of the World War. Dewey was impressed with the doctrines of Rousseau and appraised Pestalozzi, but credited Froebel with setting forth the principles of activism. Dewey's educational philosophy established the "new school;" other schools of similar type have sprung up all over the United States and the world.

The new school proposes to have the child as the center, with his needs and interests of first consideration. To find and motivate those interests, subject matter has been replaced with experience. This will take care of the interest; so needs become the major problem.

People who have put the program into effect offer the following as outcomes: happy children, meaningful and related information, wide and varied experiences, development of attitudes and habits, personality growth of the teacher, and the accumulation of valuable materials for the school. Lack of sufficient material, especially reading, and equipment were the chief disadvantages enumerated by

most teachers. Critics of the activists' school fear that the emphasis upon activity has led astray the proponents of growth. Lack of design in the program as a whole, and lack of respect and systematic provision for ideas, meanings, intellect, power to think, and training in tolerant understanding are pointed out as weaknesses. Some educators are occasioned concern by the sudden shift away from organized school subjects, the problem of developing a skill, and the disregard of the logical sequence necessary for so many developments.

The dominance in instruction of activities or subjects is the question which finally issues from the controversy. Many heads of schools are trying to bring the two points together. Caswell and Campbell place emphasis on both subjects and activities, depending upon the end desired in the particular teaching situation; i.e., characteristics of the individuals and the nature of the outcomes desired. To mention the outcomes points out that perhaps the activists are over-emphasizing the self-expression phase.

Subjects must not be discarded; rather, let learning follow use of the subject. The entire program must be planned before it is begun. The unit must be adapted to the experiences, level, needs, interests of the child. The appropriate activities must be carefully selected to make

the program a success.

The conservatives and the liberals hold diametrically opposed points of view. In the field of educational philosophy the conservatives put emphasis on the intellectual, while the liberals stress well rounded development. Knowledge is valued for its own sake by the conservatives, but knowledge for growth in power is the liberals aim. To the conservative, education is a process of pouring-in, but the liberal believes that growth comes from within. The conservatives interpret school as a place to learn subjects; on the other hand, the liberals visualize it as a place to learn to live. Making pupils more alike is the conservative aim, while the liberals strive to develop individual differences in pupils. To the conservatives, mental discipline is all important, but the liberals believe in informal discipline and creative self-expression. Teacher domination and control is the conservative aim as contrasted to the liberal idea of pupil participation which develops, guides and stimulates. The liberals hold that schools should be for all who can derive profit from them, but the conservatives contend that higher education should be reserved for the more able students. The maintenance of the status quo is sufficient for the conservatives, but the liberals seek constant improvement. Finally, the conservatives hold the

school to be an academic institution, in contrast to the liberal belief that it is a social institution.

In the field of curriculum a similar diversity of opinion is apparent. The liberals believe that the curriculum should be individualized and flexible enough to fit problems as they arise, but the conservatives stress a predetermined curriculum, uniform for all. To the conservatives the curriculum is informational, encyclopediac, but to the liberals it is experimental and psychological. The conservatives base the curriculum on subject matter, the liberals on life needs. The conservatives use a topical arrangement of material; the liberals work with units of experience. The conservative curriculum is teacher prepared, self-contained, static; the liberal curriculum is drawn up from outside sources through class cooperation and is subject to constant revision.

In the field of instruction, too, there is wide dissimilarity. The conservative teacher is autocratic, giving narrow assignments and requiring verbatim learning; the liberal teacher is democratic, expecting independent work on long assignments, and encouraging creative thinking. The liberals encourage self-expression and action based on reason; the conservatives believe in enforced inhibitions and rigid enforcement of rules. The conservatives do much

textbook teaching with recitation of the question-answer type; the liberals base assignments on longer learning experiences with significant activities, the result of group effort, substituted for questions and answers. The conservative teacher requires the same mastery for all regardless of ability and punishes failure to learn; the liberal differentiates between her pupils on the basis of ability and encourages and recognizes success no matter how small. Teacher-enforced drill is an important part of the conservative point of view, but the liberal uses drill only when it has a purpose. To the conservative, teaching is the imparting of knowledge; to the liberal it is guidance. In the field of discipline, too, we find differences, for the conservative regards the offender as a criminal, using the penal approach; but the liberal considers the offender a patient and resorts to mental hygiene.

The eclectics keep clear of both groups. To reach the same mid-ground, they use the good from both extremes. This does not mean that they compromise between the poles on each item; it means that an eclectic can be conservative in one respect and liberal in another. The outcomes of this mid-ground philosophy are shown in the teacher's ability to: (1) make the work of the school worth-while; (2) convince the pupil that the work is worth-while; (3) provide

conditions conducive to learning; (4) help the pupil define his purposes; (5) give clear-cut, long unit assignments; (6) encourage creative effort; (7) consider mastery in accordance with ability and utility of the content; (8) help the pupil keep his bearing; (9) appeal to the basic sources of action (the sensory-motor urge, secondary sex characteristics, self-assertiveness, rivalry, gregariousness, social approval or disapproval, constructiveness, curiosity, attitudes, ideas, and traditions). To be an eclectric is to be what the progressives claim to be, without using the progressive's excessive experimentation.

CHAPTER III

THE VALIDATION OF A TEST

It is the purpose of this chapter to explain the development of a test for taking attitude inventories and to show the various ways in which the test was validated.

The Development of an Instrument

It was considered necessary to develop an instrument which would measure objectively the basic philosophies of teachers by arranging items for an inventory which would test this philosophy or these philosophies. This need for an inventory is embodied in one of the major hypotheses of this study; namely, the basic philosophies of teachers can be tested by taking an inventory of their attitudes toward curriculum. This hypothesis follows the first major hypothesis of the study; namely, there is a common ground between the two extremes in philosophy which forms a philosophy of its own. The problem grew out of a desire to study the variance of educational beliefs and practices among teachers.

Items for the inventory were assembled during the reading of the literature on progressive education. Other literature on classroom practices was also used in the selection of the items. A very important source was a study,

Classroom Instruction, by Dr. Hob Gray and David F. Votaw, Jr. 1 The practices were often changed to represent conservative or progressive ideas because many times they went to neither extreme. For this reason the first draft of the test needed much refining by elimination of those items which leaned neither to the right nor to the left. Another important source for the items of the inventory was Kimball Wiles, book on teaching practices. 2 At the end of each division of this book there are specific suggestions which were of great help in formulating the items of the inventory.

Elimination of Poor Items

Garrett, 3 an authority on tests and measurements, gives license to the practice of selecting the items for a test through the judgment of teachers and other professional people in fields related to the subject. So to this investigator's judgment was added the assistance of all the members of a summer educational workshop under the direction

Hob Gray and David F. Votaw, Jr., Glassroom Instruction (Austin, Texas: University of Texas Publication #4042, 1940).

²Kimball Wiles, <u>Teaching for Better Schools</u> (New York: Prentice-Hall, Inc., 1952).

³Henry E. Garrett, Statistics in Psychology and Education, (New York: Longmans, Green, and Company, 1953), p. 349.

of Dr. J. G. Umstattd. His definition of progressive education can be found in the February 1955 issue of the <u>Texas</u> Outlook. 4

Another step in developing a valid instrument was the use of a graduate seminar to criticize the test, item by item. The writer was a member of both the workshop and the seminar, which were held in different universities in different parts of the state and, naturally, at different times.

The items were then divided into two parts, Part I dealing with teacher philosophy and Part II with teacher practices. The two parts of the test were further refined as to validity by still further elimination of items through an evaluation by sixteen experts. This can be classified as validation by item analysis. The group of experts was made up of three college professors, four superintendents, eight principals, and one supervisor. They placed a percentage value on each item, evaluating the ability of that item to test a teacher's basic philosophy through his attitude toward the curriculum. The authority for this type of

⁴J. G. Umstattd, "Just What Is Progressive Education?" The Texas Outlook, Vol. 39, No. 2, February, 1955, p. 9-11; 42-43.

validation was Garrett⁵ and is called "item validity." If an item was considered very good, the percentage rating of 100 was used. See Table II. Items which did not have a median average of 100 per cent were discarded. This left fifty-three items in Part I and forty-two items in Part II.

In Part I the statements were of two types; namely, statements of philosophic concepts upheld by professed proponents of progressive education, and clear-cut concepts which are frowned on by the progressives. These items were scored by indicating the degree to which a teacher was in agreement with the statement. If the teacher strongly agreed, she rated herself 5 on that particular item, while a score of 1 indicated strong disagreement. Proportionate degrees of agreement were indicated by 4, 3, and 2. For example, a teacher scoring herself 5 on an item of the first type indicated the most progressive point of view; but when she chose the 1, she was rating herself as a conservative on that particular item.

The second type of statement required the opposite scoring, so that a score of 1 carried a rating considered highly progressive. Approximately one-third of the items in each test were of this type. They were distributed

⁵Garrett, <u>op</u>. <u>cit</u>., p. 350.

TABLE II

EVALUATION OF TEST ITEMS BY EXPERTS LISTED ON A PERCENTAGE BASIS

Item					Scores	on Part]	of Test	t			
Number	100%	99-90	89 - 80	79-70	69-60	59− 50	49-40	39-30	£9 - 20	19-10	9-0
1	16										
2	16										
3	16										
4	16										
5	16									,	
6	15	ı									
7	15	1									
8	16								•		
9	15	1									
10	8	5	2	1							
11	8	2	1	2	1	1	1				
12	7	5	4								
13	6	2	1		2	2	ı				2
14	8	4	2	2							

TABLE II (continued)

Item				Sc	ores on	Part I of	Test				
Number	100%	99-90	89-80	79-70	69-60	59-50	49-40	39-30	29-20	19-10	9 - 0
15	9	3	4								
16	8	6	2								
17	16										
18	16										
19	16										
20	9	. 5	1		1						
21	10	2	2		1	1					
22	11	4	1								
23	16										
24	4	5	5	1		1					
25	2		4	4	2	3	1				
26	16										
27	10	3	3								
28	14	2									
29	13	2	1								

TABLE II (continued)

Item	*				Scores	on Part	I of Test 49-40	t			
Number	100%	99-90	69 - 80	79-70	69-60	59-50	49-40	39-30	29-20	19-10	9-0
30	16										
31	3	2	3	1	4	3					
32	7	5	3	1							
33	15	1									
34	16										
35	16										
36	16										
37	16										
38	16										
39	16										
40	16										
41	15	1									
42	16										
43	16										
44	16										

TABLE II (continued)

Item		~~ ~-	- , , , , .		Scores o	n Part	of Tes	t	85.55		
lumber	100%	99-90	89-80	79-70	69-60	59-50	49-40	39-30	29-20	19-10	9-0
45	12	1	1	1	1						
46	16										
47	16										
48	6	6	1	1	2						
49	16										
50	14		2								
51	10	2	3		1						
52	16										
53	16										
54	16										
55	16										
56	15	1									
57	15	1									
58	3	1	4	4	2	1	1				
59	14	2									

TABLE II (continued)

				Scores	on Part			5			
100%	88-80	89-60	79-70	6 9−60	5 9−50	4:	i-4()	39−30	29-20	19-10	S-0
15	1										
12	3	1									
16											
9	4	3									
16											
15	1	•									
	12 16 9 16	15 1 12 3 16 9 4 16	15 1 12 3 1 16 9 4 3 16	15 1 12 3 1 16 9 4 3 16	100% 99-90 89-80 79-70 69-60 15 1 12 3 1 16 9 4 3 16	160% 99-90 89-80 79-70 69-60 59-50 15 1 12 3 1 16 9 4 3	16 1 1 16 9 4 3 16	100% 99-90 89-80 79-70 69-60 59-50 49-40 15 1 12 3 1 16 9 4 3	15 1 12 3 1 16 9 4 3 16	100% 99-90 89-80 79-70 69-60 59-80 49-40 59-80 29-80 15 1 12 3 1 16 9 4 3	16 1 1 16 1 1 16 1 16 1 16 1 16 1 16 1

TABLE II (continued)

Item					Scores	on Part	II of Te	8 t			
Number	100%	99 - 90	89-80	79-70	69-60	59-50	II of Te	39-30	29-20	19-10	9-0
1	16										
2			1	1	5	4	4	1			
3	16										
4	16										
5	16										
6	16										
7	12	3	1								
8	16										
9	16										
10	16										
11	16										
12	16										
13	16										
14	16										
15	16										

TABLE II (continued)

Item					Scores	on Part	II of Te	et			
lumber	100%	99-90	89-80	79-70	69-60	59-50	49-40	39-30	59-50	19-10	9-0
16	9	5	2								
17	15	1									
18	16										
19	9	5	2								
20	16										
21	15	1									
22	16										
23	3	6	5	2							
24	6	7	3								
25	16										
26	16										
27	16										
28	15	1									
29	16										
3 0	16										

TABLE II (continued)

Item	-				Scores on	Part II	of Test				
Number	100%	58-50 ·	88-80	78-70	69 -60	59 - 50	49-40	39-30	53-50	19-10	9-0
31	16										
32	15	1									
33	1	3	11		1						
34	16										
35	3	8	4		1						
36	2	6	6	1	1						
37	16										
38	16										
39	5	5	6								
40	16										
41	16										
42	16										
43	9	3	4								
44	16										
45	16										

TABLE II (continued)

Item					Scores	on Part	II of Te	s t			
Number	100%	99-90	89-80	79-70	69-60	59-50	49-40	39-30	29-20	19-10	9-0
46	16										
47	16										
48	16										
49	1		3	1	2	1	5				3
50	15	ı									

indiscriminately throughout both tests.

In order to put the two types to a common use, each item definitely contrary to the progressive point of view was inverted so that the scoring could be done on a proprogressivism basis. This meant that scores on conservative statements had to be inverted, pivoting on the 3. The score of 2 was changed to 4 and that of a 4 to a 2; a 1 was changed to a £, and a 5 to a 1. This had to be done by the person scoring the test before item scores could be computed. The same practice was carried out in Part II. However, the scores of 5, 4, 3, 2, and 1 indicated different things. If the practice was always followed in the class work, the score of 5 was circled. The other numbers, 4, 3, 2, and 1 indicated decreasing frequency of use, with the 1 indicating that the practice was never used.

Validation Through Opinion of Experts

The process of elimination of items, as described above, was the first step in validation. The common practice of taking the opinion of experts was used, but a more objective use of expert opinion can be made through the use of the test itself. The correlation of a teacher's opinion of herself with the combined opinions of more than one expert familiar with her work (perhaps her principal and her

supervisor) offers an avenue of validating the instrument used.

Part II was administered to a total of 175 teachers in the first six grades in fifteen schools. as was Part I. Three teachers were chosen at random from each of the fifteen schools involved, and each of these forty-five teachers was evaluated by both a principal and a supervisor, using the same instrument. This made available two sets of scores as shown in Table III. These scores are divided as follows: 135 white teachers in nine schools and 40 Negro teachers in six schools, a total of 175 teachers in fifteen schools. The average score of the white teachers was 4.0014, while the average score of the twenty-seven selected white teachers was 4.0114. The average score of the Negro teachers was 3.9839, while the average score of the eighteen selected Negro teachers was 3.9576. The average score for all the 175 teachers was 3.9974; the average for the selected 45 teachers was 3.9899.

The forty-five teachers proved to be a good sampling, as evidenced by the difference of only .0075 between the total average score of the whole group and that of the sampling. Columns 3 and 4 are averaged in column 5, which gives a mean of principals' and supervisors' evaluation of the forty-five teachers as 3.5712. This shows a difference

TABLE III
SCORES OF PRINCIPALS, SUPERVISORS, AND TEACHERS ON PART II OF TEST

	Col. 1 Average score 175 teachers	Col. 2 Average score 45 selected teachers	Col. 3 Average score Prin- cipals* evalua- tion of these 45 teachers	Col. 4 Average score super- visors' evalua- tion of these 45 teachers	Col. 5 Average prin- cipals' and super- visors' evalua- tion	Col. 6 Average score prin- cipals' own evalua- tion of selves	Col. 7 Average score super- visors; own score of selves	Col. 8 Average prin- cipals and super- visors own score of selves
135 white teachers in 9 schools	4.0014	4.0114	3.5273	3.6673	3.5973	3. 9733	4.1633	4.0683
40 Negro teachers in 6 schools	3. 9839	3.9576	3.6138	3.4576	3.5357	4.0650	4.0300	4.0475
Totals	3.9974	3.9899	3.5619	3.5804	3.5712	4.0100	4.1100	4.0600

between the average score of the forty-five teachers and the supervisors evaluation of .4187.

Even with this difference there is a significant relationship as shown below. In seeking a correlation coefficient showing the relationship of the average total score of the forty-five teachers and that of the supervisors, scores by both groups were considered item by item throughout the forty-two items of Part II. The result was a coefficient of .92 as shown in Table IV. This relationship is significant at the 1 per cent level which means that it could be assumed with a 99 per cent level of confidence that the items in the inventory test what they propose to test.

Columns 6 and 7 of Table III, page 82, are summarized in column 8 to show the average of the principals' and supervisors' evaluation of themselves. This was accomplished by use of the same instrument. This average score arrived at by fifteen principals and fifteen supervisors evaluating themselves is higher than the score in column 2, which is an average of forty-five teachers evaluating themselves. There is an indication, then, that a person in a supervisory capacity tends to let his self-evaluation influence his scoring of the teachers. The total of column 8, average score of supervisors placed on self, averaged with the total of column 5, the average score the principal and supervisor

TABLE IV

USE OF PRODUCT-MOMENT METHOD TO DETERMINE THE COEFFICIENT OF CORRELATION BETWEEN THE FORTY-FIVE TEACHERS' EVALUATION OF THEMSELVES ON PART II ITEM BY ITEM AND THE MEAN EVALUATION MADE BY PRINCIPALS AND SUPERVISORS

Formula: $r = \frac{N \sum XY - \sum X \times \sum Y}{\sqrt{N \sum X^2 - (\sum X)^2 x N \sum Y^2 - (\sum Y)^2}}$

in which,

 $\sum X$ = summation of item scores, Part II = 167.49

ΣΥ = summation of item scores given by principals and supervisors = 150.20

= 0.916

Significance levels:

5 per cent level = .29

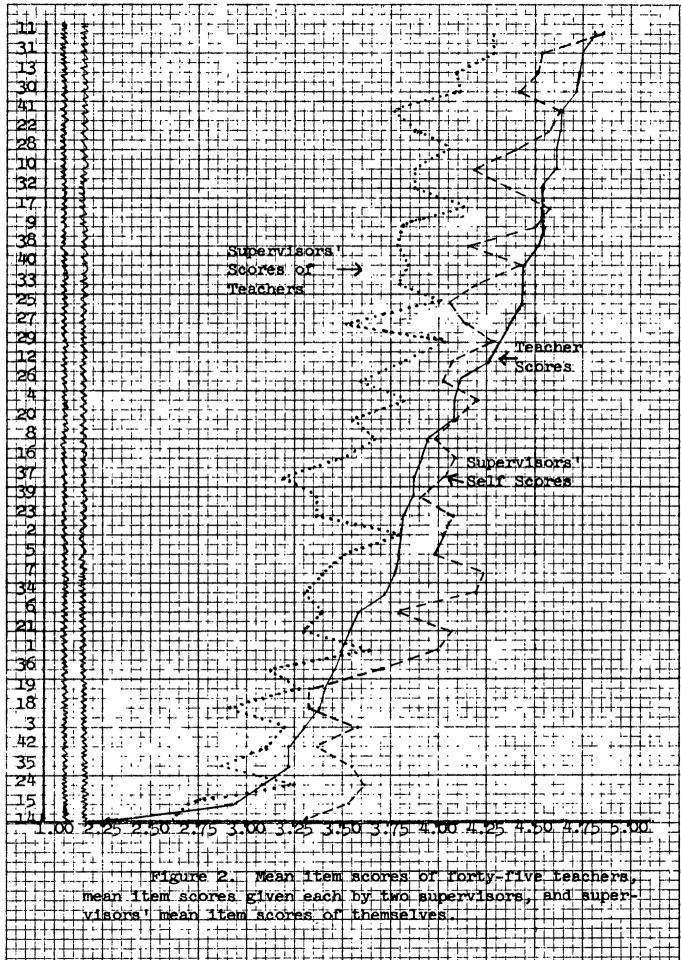
1 per cent level = .37

gave the forty-five teachers, does not equal the total of column 2, the average score of the teachers. There is a difference of .17. However, Figure 2 shows that this average would hold up to a point on the graph where the teachers' evaluations of themselves begin to be high on the graduated item scale. By eliminating item scores, beginning with the highest average score the teachers gave themselves and coming down the scale, a point could be reached where the above mentioned average would exist.

A correlation coefficient of .48 was attained between the total scores of forty-five teachers and the scores placed by the principal and supervisor on each teacher, as shown in Table V. Even though this coefficient is hardly large enough to be significant at the 1 per cent level, it is well above the requirement for the 5 per cent level. This is an indication of the validity of the test as an instrument to test the basic philosophies of a teacher.

Validation Through Correlation With a Known Instrument

The only known instrument which the investigator could find to use in the validation of the inventory was the Minnesota Teacher Attitude Inventory. The purpose of the Minnesota test is to determine the teacher's ability to get along with children. It has been validated and standardized



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TABLE V

USE OF PRODUCT-MOMENT METHOD TO DETERMINE THE COEFFICIENT OF CORRELATION BETWEEN THE FORTY-FIVE TEACHERS SCORE ON PART II AND THE MEAN SCORE GIVEN THE TEACHERS BY PRINCIPALS AND SUPERVISORS

Formula:
$$r = \underbrace{N \times XY - \times X \times XY}_{N \times X^2 - (XX)^2 \times N \times Y^2 - (XY)^2}$$
in which,
$$\Sigma X = \text{summation of mean scores Part II} = 179.58$$

$$\Sigma Y = \text{summation of mean scores given by principals and supervisors} = 160.77$$

$$\Sigma XY = \text{summation of mean scores Part II}_{X \text{ summation of mean scores given by principals and supervisors}} = 644.4828$$

$$\Sigma X^2 = \text{summation of mean scores Part II}_{\text{squared}} = 721.9976$$

$$\Sigma Y^2 = \text{summation of mean scores given by principals and supervisors squared} = 581.3521$$

$$r = \underbrace{45 (644.48) - 179.58 \times 160.77}_{45 (722.00) - 179.58)^2 \times 45 (581.35) - (160.77)^2}$$

Significance levels:

0.475

=

5 per cent level = .29

l per cent level = .37

in the usual manner. Even though the object of this test differs from that of the attitude inventory used in this study, there is an apparent relationship in essence. Many of the items are related because a progressive school is child-centered, and items of an inventory which test the degree of progressiveness of a teacher will bear a relationship to any test item directly concerning the child. As shown in Table VI, this relationship is substantiated by a correlation coefficient of .51 between individual scores made by eighty teachers on the inventory of teachers' attitudes toward the curriculum and the Minnesota Teacher Attitude Inventory. A correlation coefficient of .22 would be required to make the relationship significant at the 5 per cent level. This correlation gives considerable indication that the two attitude inventories test similar concepts of educational philosophy.

Validation Through Showing Correlation Between Parts of Inventory

Part I and Part II of the inventory were given to the same 175 teachers, as described in Chapter I. Part I deals with educational philosophic concepts as brought out by the teachers' attitudes toward the curriculum from the standpoint of belief. Part II contains items of classroom

TABLE VI

USE OF PRODUCT-MOMENT METHOD TO DETERMINE THE COEFFICIENT OF CORRELATION BETWEEN THE INDIVIDUAL SCORES OF EIGHTY TEACHERS ON PART II AND THEIR SCORES ON THE MINNESOTA TEACHER ATTITUDE INVENTORY

Formula:	$r = \frac{N \Sigma XY - \Sigma X \times \Sigma Y}{\sqrt{N \Sigma X^2 - (\Sigma X)^2 \times N \Sigma Y^2 - }}$	(∑	 2
in which,			
x =	summation of scores Part II	=	328.01
ΣΥ =	summation of scores Minnesota Teacher Attitude Inventory	=	3,802
Z XY =	summation of scores Part II x summation of scores Minnesota Teacher Attitude Inventory	=	16,019.37
Σ X ² =	summation of scores Part II squared	=	1357.2341
YY ² =	summation of scores Minnesota Teacher Attitude Inventory squared	=	238,536
	(16,019.37) - 328.01 x 3,803 (1357.23) - (328.01) ² x 80 (238		6) - (3,802)2
= 0.5	10		

Significance levels:

5 per cent level = .22

l per cent level = .28

practice designed to show the philosophy of a teacher. These practices were formed by translating items of Part I into classroom practices wherever possible. For example, an item in Part I shows the democratic attitude of a teacher by her willingness to let the children help make the curriculum. This same philosophic principle is the basis for items in Part II which deal with child participation in curriculum making through classroom practices. These items were not matched item for item, but the scores the teachers made on the two parts were correlated teacher by teacher. If a teacher made a score which indicated progressive ideas, the tendency was for her to make a similar score on Part II. In correlating the scores made by each teacher on the two parts, the investigator obtained a significant coefficient of correlation of .53, shown in Table VII. This score indicates the relationship of the two parts of the test to be significant. Both parts show the attitudes of the teachers; both parts were built item by item from literature concerning progressive education. It is felt that the correlation between the two tests is caused by this mutual underlying philosophy of progressive education.

TABLE VII

USE OF PRODUCT-MOMENT METHOD TO DETERMINE THE COEFFICIENT OF CORRELATION BETWEEN THE SCORES MADE BY 175 TEACHERS ON PART I AND THOSE MADE ON PART II

5 per cent level = .15

1 per cent level = .22

Validation Through Indicating Reliability

Garrett⁶ states that the validity of a test is increased by increasing the reliability up to a certain point. It is the purpose of this part of the study to show reliability by correlating the scores of Part II of the inventory with scores made by the same teachers on the same part of the test several months later. The correlation of the scores made by each of fifty-five teachers with the scores made by those teachers on the same test four and one-half months later has a very substantial significance, since the obtained coefficient of .70 in Table VIII is acceptable at the 1 per cent level. Garrett states that the scores on a retest will tend to be higher than the scores obtained on the first test because of familiarity with the test. This was particularly the case with the retest made for this study because the teachers admittedly carried on informal discussion groups between the two testings. The scores indicate that those teachers who had a drop in score were mostly people with relatively high scores in the beginning. This is to be expected on tests as abstract as the one used

⁶ Ibid., p. 345.

⁷Ibid., p. 333.

TABLE VIII

USE OF PRODUCT-MOMENT METHOD TO DETERMINE THE COEFFICIENT OF CORRELATION BETWEEN SCORES OF FIFTY-FIVE TEACHERS ON PART II AND THEIR SCORES ON A RETEST

Formula:
$$r = \frac{N \times XY - \Sigma X \times \Sigma Y}{\sqrt{N \times X^2 - (\Sigma X)^2 \times N \times Y^2 - (\Sigma Y)^2}}$$

in which,

XX = summation of scores on Test, Part II = 215.51

ΣΥ = summation of scores on Retest = 223.45

XXY = summation of scores on Test, Part II

x summation of scores on Retest = 878.6317

XX2 = summation of Part II scores squared = 848.0991

 ΣY^2 = summation of Retest scores squared = 912.0057

$$r = 55 (878.63) - 215.51 \times 223.45$$

$$\sqrt{55 (849.10) - (215.51)^2 \times 55 (912.01) - (223.45)^2}$$

$$= 0.695$$

Significance levels:

5 per cent level = .26

1 per cent level = .34

in this study.

Summary

The purpose of Chapter III was to show the validity of the attitude inventory developed for the purpose of testing the basic philosophy of teachers. An attempt to show the validity of the test was made in five different ways. There was an elimination of poor items based on expert judgment. The opinion of experts was used again with the evaluation of forty-five teachers by two people in supervisory capacity. The correlation coefficient between the teachers own scores and those given them by these supervisors was .92 when each item of the test was used. When the total scores of teachers and the total evaluation scores of teachers by supervisors were used, the coefficient of correlation was .48. When the results of Part II were correlated with the results on the Minnesota Teacher Attitude Inventory, a correlation coefficient of .51 was obtained. A fourth method of validation was the correlation of scores made on Part I with those made on Part II, where the correlation coefficient of .53 was reached. The reliability of the test was established at a correlation coefficient of .70 when fifty-five teachers were retested with Part II.

CHAPTER IV

PURPOSES FOR WHICH THE INSTRUMENT MAY BE USED

This chapter is concerned with the demonstration of the various uses which can be made of the test. The results of the test administered show a difference in scores between individual teachers and between groups of teachers. These differences are shown in the summation of scores on the various items. It has been assumed from the beginning that scores of individual teachers and scores of teachers on individual items would make interesting and valuable data for the files of the personnel offices and for the files of supervisors who work with the teachers in the direction of teaching methods, techniques, and procedures. With this purpose in mind, the demonstration of uses for the test are set forth.

Philosophy of Teacher Training Institutions

Even though each instructor in a college may differ in philosophic beliefs from his colleagues, there will be a general philosophic trend permeating the thinking of a whole faculty. This can be true because of association or the influence of the head of the department or the president of the college. It is likely that the philosophy of an

instructor will be taken into consideration before he is hired; therefore, the beliefs of the whole faculty of any one college will have a tendency to agree with the beliefs of the individual faculty members of that college. While administering the test to 175 teachers, the investigator collected data which included the names of the colleges attended by each subject. Figure 3 lists these colleges and shows graphically the relationship between colleges as to the manner in which the teachers represented those colleges in expressing their individual philosophies. The solid line shows scores in Part I of the test, and the dotted line shows the scores on Part II. The corresponding vertical lines show the mean scores on Part I and Part II.

Part I has a mean average score of 3.94. Those schools whose graduates scored themselves less than the mean were Sam Houston State College, represented by sixteen teachers with an average score of 3.88; East Texas State College, represented by nine teachers with an average score of 3.87; Stephen F. Austin State College, represented by eight teachers with an average score of 3.86; Texas University, represented by three teachers with an average score of 3.75; Mary-Hardin Baylor College, represented by three teachers with an average score teachers with an average score of 3.73; North Texas State College, represented by four teachers with an average score

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No. 5740-20 530-PE: TO THE INCH of 3.70; six other Texas colleges represented by one teacher each, with an average score of 3.69; Hardin-Simmons University, represented by two teachers with an average score of 3.64.

Those schools whose graduates scored themselves above the mean of 3.94 for Part I white schools are; out-of-state colleges represented by fifteen teachers with an average score of 3.96; University of Houston, after graduating from another institution, represented by fourteen teachers with an average score of 3.97; University of Houston represented by forty-two teachers who completed all their work at this institution with an average score of 4.02; Southwest Texas State College represented by five teachers with an average score of 4.05; Baylor University represented by four teachers with an average score of 4.06; and Texas State College for Women represented by four teachers with an average score of 4.09.

The mean average score of Part II is 4.00. This would seem to indicate that most teachers are more progressive in their classroom practices than in their beliefs as expressed in their attitudes toward curriculum. However, some teachers rate higher on beliefs, which would make personnel office data more significant. Even though the dotted line of the graph, Figure 3, representing Part II shoots off at a tangent

twice where the college or university is represented by a small number of teachers, it follows the other line in a fairly systematic way and has the same number of schools scoring above the mean as does Part I.

Those schools whose graduates scored themselves below the mean on Part II are Southwest Texas State College. whose five teachers averaged 3.89: Sam Houston State College, whose sixteen teachers averaged 3.99; Stephen F. Austin State College, whose eight teachers averaged 3.99: Texas University, whose three teachers averaged 3.83: Mary-Hardin Baylor, whose three teachers averaged 3.75; North Texas State College, whose four teachers averaged 3.69: Texas colleges, represented by one teacher each, whose six teachers averaged 3.72; Hardin-Simmons University, whose two teachers averaged 3.62. Schools whose graduates scored themselves above the mean are Texas State College for Women, whose four teachers averaged 4.12: Baylor University, whose four teachers averaged 4.24: University of Houston, whose forty-two teachers averaged 4.07; University of Houston, whose fourteen teachers had first graduated from another college, averaged 4.05; out-of-state colleges, whose fifteen teachers averaged 4.03; and East Texas State College, whose nine teachers averaged 4.04.

Figure 3 shows so few subjects representing each teacher training institution that the difference between the philosophies of the training institutions must be shown by a unique method of comparing a number of samples. The H test by Kruskal and Wallis¹ is a method of comparing a number of samples, analagous to a one-way analysis of variance. In this method, the subjects of all the samples are merged, and the scores of all the subjects are ranked, with the rank of 1 assigned to the lowest score, 2 to the next lowest, and so on. The sum of ranks is found for each of the separate samples. The test statistic to be computed is

$$H = \frac{12}{N(N+1)} \frac{k}{1} \frac{R_1^2}{N_1} - 3(N+1)$$

when

k = number of samples being compared, and i represents
any given sample

 N_1 = number of observations in the <u>i</u>th sample

Ri sum of ranks in the ith sample

N = total number of observations when the samples are merged, or $\sum_{i=1}^{k} N_{i}$.

If the number of samples being compared come from identical populations and the total number of observations when the samples are merged are not very small, H is distributed approximately as χ^2 with k - 1 degrees of freedom.

lwilliam H. Kruskal and W. A. Wallis, "Use of Ranks in One-Criterion Variance Analysis," Journal of American Statistical Association, 47:583-621, 1952.

Small values of H would indicate retention of the hypothesis that the samples are drawn from the same population. The samples are not significantly different from each other. Large values of H would indicate that the samples are not drawn from the same population, i.e., the differences between the groups is greater than could be expected on the basis of chance sampling errors.²

In Table IX differences between schools where teachers were trained are shown through the use of this H test. On Part I, H = 18.25, equivalent to $\chi^2_{.80}$, or twenty chances out of one hundred that such differences would occur due to chance alone, a twenty per cent level of confidence. The term "level of confidence" here is the same as used by Garrett when he sets accuracy limits. On Part II, H = 12.09, equivalent to $\chi^2_{.40}$, or sixty chances out of one hundred that such differences would occur due to chance alone. The twenty per cent level of confidence on Part I would indicate a tendency toward differences in the teachers' philosophies being associated with the fact that they had their training at different colleges. This would not necessarily

Helen M. Walker and Joseph Lev, Statistical Inference, pp. 435-438.

³Garrett, <u>op. cit.</u>, pp. 186-187.

TABLE IX (See Appendix E)

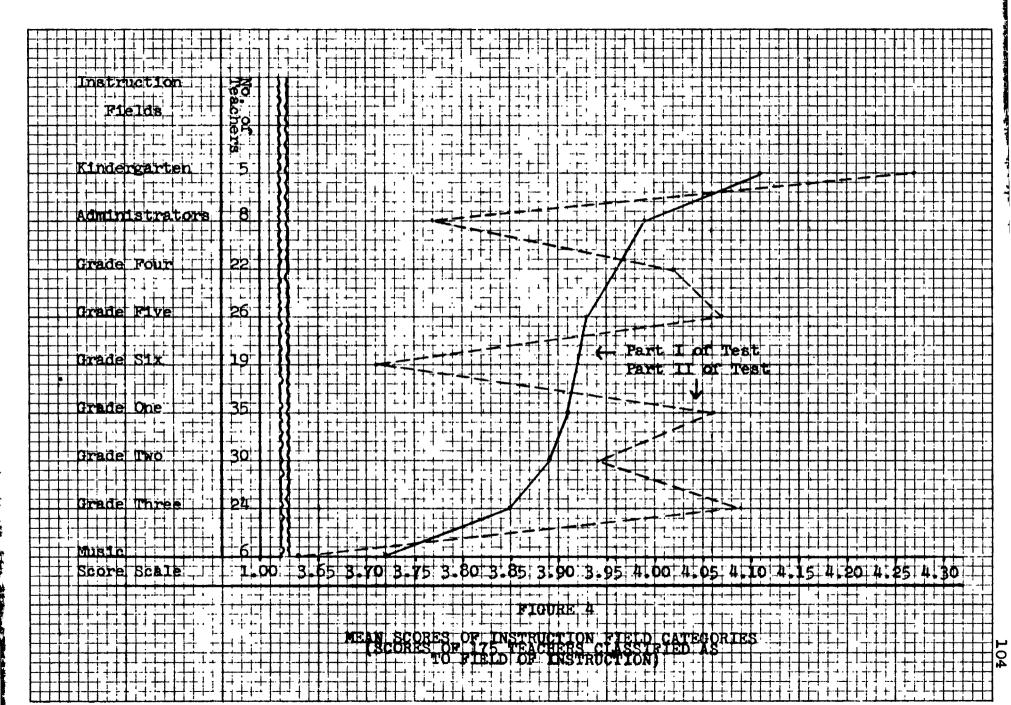
RESULTS OF THE KRUSKAL-WALLIS H-TEST AS TO THE INFLUENCE OF TEACHER TRAINING INSTITUTIONS ON THE PHILOSOPHY OF TEACHERS (White teachers only)

	of	Part I Attitude Test	Part II Gf Attitude Test			
Differences between schools where	H =	18.25 X ² .80	H =	12.09 χ^2 .40		
teachers trained	=	20 per cent level of confidence		60 per cent level of confidence		

mean that any specific college is significantly different from any other specific college, but rather that the differences between the philosophies of teachers from different colleges are relatively large as compared with differences between teachers trained at the same college. This level of confidence obtained through the use of the H test indicates that if there were enough subjects in each sample, any two samples could be compared through the one way analysis of variance and that it is probable that a significant difference would exist.

Philosophy of Teachers by Grades or Subject Matter Fields

Philosophies of teachers of grades one through six follow the general pattern of scoring themselves higher on Part II than on Part I except for sixth grade teachers, who on Part I score themselves twenty-one points below Part II in a possible range of four hundred. See Figure 4. Administrators and music teachers score themselves lower in classroom practice than they do in theory. This can be expected since music teachers and administrators do not participate each day in the same type of classroom practices used by the teachers from kindergarten to sixth grade. In viewing the relationship of scores on Part I and Part II,



the change in trend upon reaching the sixth grade can be partially explained by the fact that sixth grade teachers are often secondary teachers teaching in that bracket of the elementary school. Since this test was designed for teachers of the first six grades, a person who has been teaching high school subjects and departmentalizes even in part is likely to show himself more conservative on classroom practices. Figure 4 shows that Part I ranges from music teachers with an average score of 3.72 to kindergarten teachers with an average score of 4.11 in a possible range from 1.00 to 5.00. Part II has much wider range; it runs from music teachers at 3.63 to kindergarten teachers at 4.27. The difference in scores of teachers of different grade levels or subject matter classifications seems to be great enough, as shown by Figure 4, to warrant a different norm for teachers of each grade or special subject should the test be standardized.

In Table X differences were shown between teachers of the various grades and special subjects through the use of the H test by Kruskal and Wallis. On Part I, H = 8.77, equivalent to $\chi^2_{.63}$. On Part II, H = 14.84, equivalent to $\chi^2_{.93}$, which is beyond the ten per cent level of confidence.

TABLE X
(See Appendix E)

RESULTS OF THE KRUSKAL-WALLIS H-TEST AS TO DIFFERENCES
BETWEEN THE PHILOSOPHY OF TEACHERS IN DIFFERENT
TEACHING POSITIONS
(White teachers only)

	Part I of Attitude Test	Part II of Attitude Test
Difference between teaching positions	H = 8.77 = χ^2 .63	H = 14.84 = $\chi^2_{.93}$
	= beyond 35 per cent level of confidence	

Relationship of Philosophy to Years of Experience

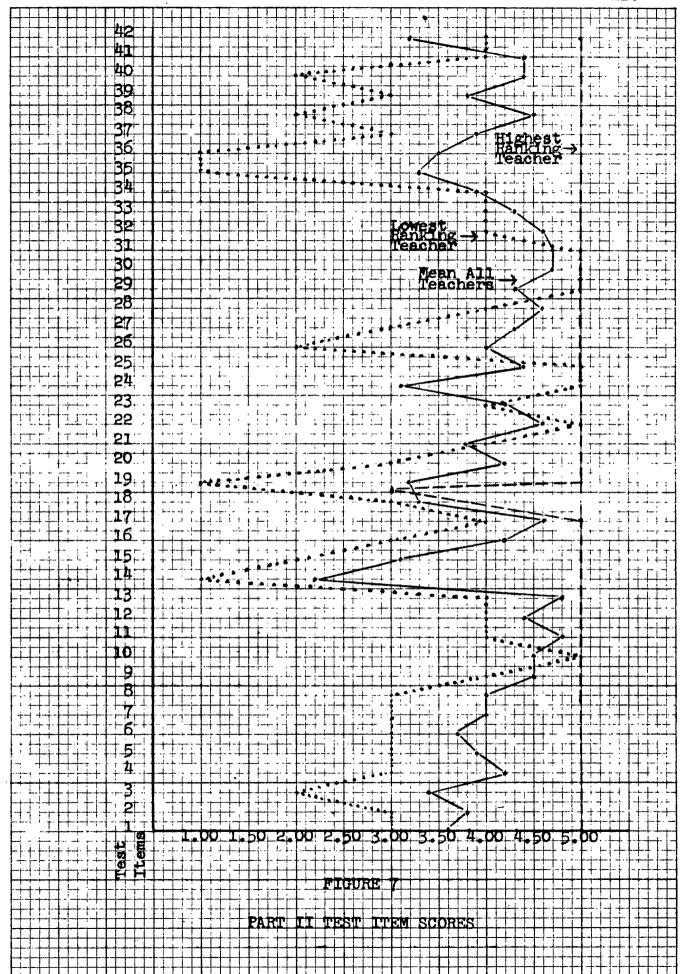
each of the 175 teachers. At each experience level all the teachers with that amount of experience were averaged into a mean score for that level. This applies to both Part I and Part II. The average scores on Part I range from 3.67 to 4.47; on Part II the range is from 2.98 to 4.34. In certain isolated cases where the experience level is represented by a small number of teachers, there is a possibility of a wider varying of scores. For example, the experience level of twenty-seven years, with one person representing it, carries a very low Part II score of 2.98. Had there been other teachers at this level, that extremely low score would probably have been modified. Excluding these extreme cases the tendency is toward an increased progressive score with the advancement of experience.

School Philosophy Determined Through Mean Scores of Individuals

Figure 6 shows the mean score on each item of all teachers tested on Part I, and Figure 7 shows those of Part II. These mean scores are shown in the solid line in the graphic representation. The dotted lines show the score,

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item by item of the teacher with the lowest mean score. This applies to Figure 7, Part II, as well as to Figure 6, Part I. The broken line represents item by item scores of the most progressive teacher tested. The range of scores of the lowest ranking teacher is from 1 to 5 on both Part I and Part II, while the range of scores of the high ranking teacher is from 1 to 5 on Part I and from 3 to 5 on Part II. This wide range of scoring indicates that the eclectic philosophy shown by the mean scores is one which does not take a center path throughout all the questions. For example, a person who is midway between conservative and progressive in his philosophy will not score himself 3 on each question. A very conservative teacher will rate himself 5 on several items and an ultra-progressive one deviates occasionally from the score of 5. The solid line, representing the mean score of all teachers, is more nearly constant than the dotted line, representing the most conservative teacher. is brought about by the influence of 175 teachers on the mean score. Even with this large number of teachers, the range is still from 2.13 to 4.85 on Part I and from 2.17 to 4.80 on Part II.

The mean scores represented in Figure 6 and Figure 7 are for all teachers, but the same treatment could be given the teachers of each school, thus showing the mean score on

each item for each school. The mean score of the school would be an average of the scores on all the items. This score should indicate the extent to which each school deviates from conservative practices and approaches progressive practices. As shown in Table XI, the total school score on Part I ranges from 3.72 to 4.22, while on Part II it ranges from 3.55 to 4.47.

As shown in Appendix F each school can be scored on each item, allowing the philosophy of the school to deviate from the total score of the school as it goes from item to item. This type of scoring a school is more meaningful because schools, as well as individuals, tend to go conservative or progressive item-wise. The deviation between the lowest item and the highest of a school is not so great as is to be found when the item by item scores of an individual are plotted. Even so, as seen in Appendix F, scores on Part II of the test range from 1.66 on item #14, school #5 to a score of 5.00 on item 30, school #6. The variation within the school itself is significant. One school ranges from a score of 1.66 on item 14 to a score of 4.97 on item 16.

The philosophy of a school, then, can be determined by the building of a score through the scoring of teacher attitudes toward specific concepts of the curriculum.

TABLE XI
MEAN SCORES BY SCHOOLS

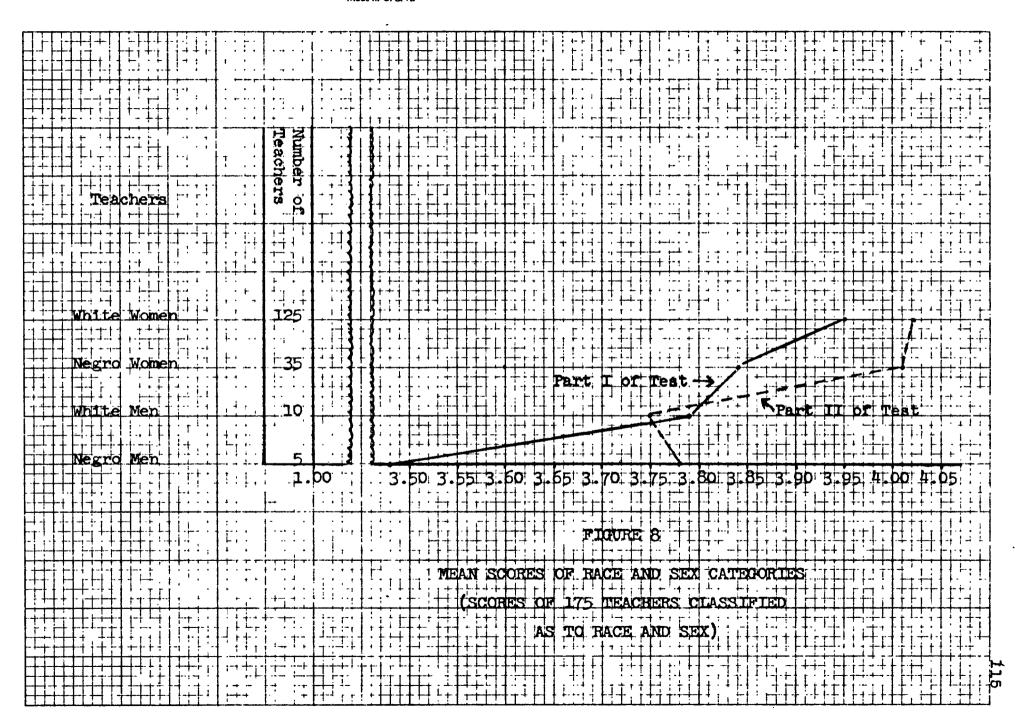
School (Part I Teachers! Own Scores	Part I Selected Teachers Own Scores	Part II Teachers! Own Scores	Part II Selected Teachers [†] Own Scores	Part II Selected Teachers' Scores by Administrators	Part II Administrators Scores of Selves
			Wh	lte		
#1	3.86	4.02	3.83	3.97	3.90	4.19
#2	3.93	4.02	4.04	4.08	3. 08	4.67
#3	3. 86	3.84	3.83	5. 98	3.40	4.22
70 ∮4	3.83	3.92	3.72	3.93	3.61	3.47
#5.	4.22	4.36	4.47	4.62	4.09	4.40
#5 #6	3.78	3.3 4	4.03	3.89	3.51	3.73
#?	3.88	4.01	3.95	4.11	3.85	4.11
#8	3.75	3.65	3.55	3.60	3.19	3.67
#9	4.02	4.19	3.92	3.93	3.74	4.19
<i>T</i> 3	3.00	T. 40	0.86	0.30	V. 17	7.10
Totals	3.94	3.93	4.00	4.01	3.60	4.07
			Ne	gro		
#10	3.97	3.98	4.17	4.03	3.68	4.30
#11	3.81	3.79	3.92	3.94	3.49	4.19
#12	3.95	3.87	3.99	3.90	3.46	3.72
#13	3.76	3.73	3.86	3.83	3.13	4.19
#14	3.72	3.70	3.90	4.06	3.32	3.87
#15	3.88	4.00	4.06	3.99	4.14	4.03
Totals	3.83	3.85	3.98	3.96	3.54	4.05
Totals Negro and White		3.89	4.00	3.99	3.58	4.06

Effect of Administrator's Philosophy Upon the Philosophy of the School

Administrators cannot control the thinking of teachers, nor can they control the actions of teachers; however, the general philosophic tone of a school will be influenced by the thinking of administrators. It begins with the hiring of teachers because administrators are attracted to teachers with ideas similar to theirs. This would follow more reliably were teachers less scarce. It is more often true now in the case of schools with high salary schedules. The correlation between the administrator's own philosophy and that of the school is in direct proportion to the salary schedule of the school as seen in Table XI.

Relation of the Philosophy of the Men to That of the Women

In both beliefs and practices there is a difference between the scores of men and women. Figure 8 shows that the mean score of the men is 3.78 while that of the women is 3.91, a difference of 0.13. In Part II the mean score of the men is 3.76 while that of the women is 4.02. Even though the difference in scores of men and those of women is not very great, norms could be established through standardization of the test so that deviation from the norm



could be used by boards of education in evaluating a teacher's philosophy instead of using the raw scores.

By the use of the H test by Kruskal and Wallis, differences between men and women teachers are shown statistically in Table XII. On Part I, H = 2.66, equivalent to $\chi^2_{.90}$. This is the ten per cent level of confidence. On Part II, H = 4.80, equivalent to $\chi^2_{.97}$. The level of confidence here is beyond five per cent.

The Relation of the Philosophy of White Teachers to That of Negro Teachers

The results of this study show little difference between the basic philosophy of the Negro teachers and that of the white teachers among those studied. This fact remains when mean scores of teachers and mean scores of items are considered as shown in Figure 8 and also in Appendix C and Appendix D. However, individual teachers might vary greatly in their scores on certain items. Supervisors could use the data derived from the test scores in counseling with individual teachers concerning individual items especially where integrated faculties are being considered.

Figure 3, page 97, shows the mean for Negroes and whites. Part I shows a difference of 0.11 in mean scores, while Part II shows a difference of only 0.02 in mean scores.

TABLE XII
(See Appendix E)

RESULTS OF THE KRUSKAL-WALLIS H-TEST AS TO DIFFERENCES BETWEEN THE PHILOSOPHIES OF MEN AND WOMEN (White teachers only)

	1 1	of	Part I Attitude Test	1 1 1		Part II Attitude Test
Differences between	! н	-	2.66	H	=	4.80
sexes		=	x2.90	, ! !	=	x ² .97
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	=	10 per cent level of confidence	† † † †	=	beyond the 5 per cent level of confidence

This shows only an inconsistency of 0.09 in variation. This slight variation pictures the average Negro teacher to be slightly more conservative in theory than the average white teacher while he is very slightly more conservative in class-room practice.

Appendix C and Appendix D give the result of item by item tabulation of scores on Part I and Part II. These tabulations show Negro teachers to be much more conservative than white teachers on a few items; for example, Item 10 and Item 11 in Part I and Item 15 and Item 21 in Part II. However, scores on most items show that the progressive or the conservative attitude of the Negro teacher rises and falls with that of the white.

Figure 8 shows Negro men to be much more conservative in theory than in practice. There is a difference of 0.32 between the theory score of the Negro men and that of the whites. There is a difference of 0.30 between the Negro men's theory and their own practice. The Negro women are also more conservative in theory than in practice but not to the extent of the men.

Since the test can be used for at least seven distinctly different purposes, it is assumed that it can be used to advantage in the administration of the personnel of a school because of its ability to supply personnel data.

CHAPTER V

SUMMARY AND CONCLUSIONS

The purpose of this investigation has been to develop and validate a test or attitude inventory which will indicate the philosophy of a teacher through his attitude toward curriculum. Through the use of this test, a common ground between two extremes in philosophy has been pointed out. This common ground, a philosophy within itself, is known as eclecticism. It is often thought that eclecticism, as a mid-ground, is a type of philosophy upheld by people who took a "middle of the road" path. Results of this study show eclecticism in a different light. It was found that a teacher's mean score on all items of the test would show that teacher to be eclectic if it ranged near the mid-point between essentialism and progressivism. This mean score, however, might be made up of extremely progressive scores and ultra-conservative scores on individual items. Eclecticism in this interpretation is a selection of the best practices in all educational philosophies in the individual teacher's opinion.

Two major hypotheses and three minor hypotheses were stated in Chapter I. The major hypotheses, restated, read as follows:

There is a common ground between the two extremes in philosophy which forms a philosophy of its own.

The basic philosophy of teachers can be tested by taking an inventory of their attitudes toward curriculum.

The minor hypotheses are the following:

There are differences between the philosophies of teachers as individuals and as groups.

The philosophy of the teacher is influenced by the institution in which he was trained.

The philosophy of the teacher is influenced by his past experiences; for example, his teaching experience in definite fields.

For the purpose of this investigation, the factor considered in determining the philosophic score of a teacher was the teacher's score on each individual item of the inventory, so stated as to indicate his professed beliefs and his actual practices.

Statement of Conclusions

The formation and validation of an inventory test was considered and reported in Chapter III.

The validity of the test was shown in the following ways:

An excess number of items was gathered and the poorer items eliminated by the judgment of experts.

The expert opinion of principals and supervisors was used in evaluating teachers. By means of correlation, it was found that the relationship between

the scores of teachers on themselves and the survisors' scores of them was good at the one per cent level of confidence.

Part II of the test showed a relationship with the Minnesota Teacher Attitude Inventory of better than a one per cent level of confidence.

Part I and Part II of the test correlated at a point well above the one per cent level of confidence.

The retest of fifty-five teachers established the reliability of the test at the one per cent confidence level.

In the light of the evidence found in reporting, the two major hypotheses as stated above can be considered true since the philosophy of teachers can be tested, because differences in philosophies of teachers as individuals and as groups are postulated in the major hypotheses. The philosophy of the teacher is influenced by the institution in which his training was received, as evidenced by a twenty per cent level of confidence through the use of the "H test" on Part I.

The philosophy of a teacher is influenced by his experiences, as shown by a better than ten per cent level of confidence through the use of the "H test" on Part II. The sex of a teacher determines many of his experiences. When the scores of the men were compared with those of the women, a ten per cent level of confidence was obtained on Part I and a better than five per cent level of confidence on Part II.

This is further evidence of the influence of experience on a teacher's philosophy.

Limitations of Conclusions

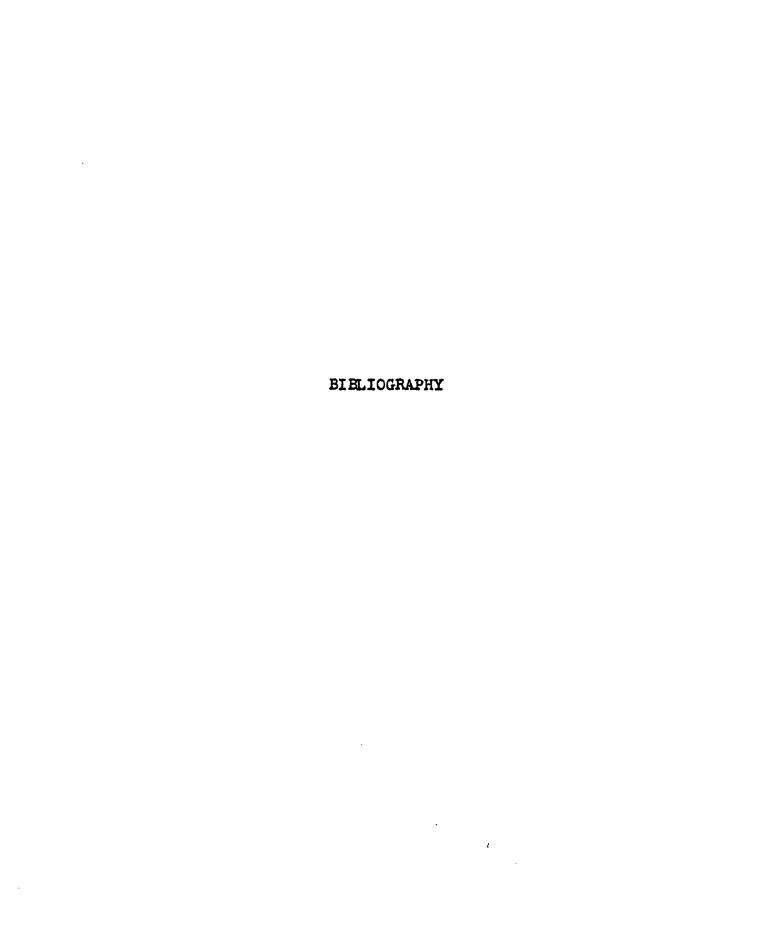
The limitation of the small number of teachers tested is not justified in the case of the present investigation because one hundred per cent of the teachers in each school studied participated in the study by subjecting themselves to the test.

Definite classroom practices are easier for a teacher to judge in his own teaching than are abstract philosophic concepts; therefore, the items of Part I tend to have a lower score than those of Part II. This could be considered a slight limitation.

Application of Conclusions

The philosophy of American schools is being attacked daily. The beliefs and practices of schools are being misconstrued, misunderstood, and misinterpreted. The term "progressive education" has fallen into ill repute because of its use by enemies of public education, financial enemies as well as enemies of method or technique. Some of the attacks come from persons interested in private schools, parochial schools, public schools, and from persons not

interested in any type of school. The results of this study could be used as informational data to show the American public what the philosophies of the teacher of a definite locality are. Further study could be made by standardizing the test used in this investigation with norms set up on each item. The scores then obtained by administering the test would be more meaningful and would indicate the true philosophies represented in the beliefs and practices of teachers.



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APPENDIX A

Letter to Superintendents Asking Permission to Give the Test

PRINCIPALE:

D. T. HARNDEN
SENIOR MISH SCHOOL
ELLWOOD W. BROWN
JUNIOR MISH SCHOOL
E. S. CALDWELL
GENTRAL ELEMENTARY
HOY L. BURNS
HOSTHRIDE ELEMENTARY
T. J. WRIGHT

MARSHALL HISH SCHOOL

ROSHARSH ELEMENTARY

FAY BRADLEY HARRIS

APPENDIX A

ANGLETON INDEPENDENT SCHOOL DISTRICT CHARLES M. KELSO, SUPERINTENDENT

DAVID F. CUNNINGHAM, ADMINISTRATIVE ASSISTANT

ANGLETON, TEXAS

BOARD MEMBERS:

JAMES L. BAKER PRESIDENT

DR. J. S. MONTGOMERY, JR.

VICE PRESIDENT

LELAND B. KEE

H. J. MYERS

W. B. PATTERSON ELMER CANNON

C. H. BENNETT

October 4, 1954

Dear Superintendent:

I am making a study of attitudes of elementary teachers toward certain types of educational philosophy. I would like to study both the white and Negro teachers of the first six grades in your school system through an attitude inventory. I assure you that the results from your individual school, as a unit, will not be published without your permission. If you will allow me to make this study, please indicate by returning this letter with the information below filled in.

Number	of	teachers	in	your	white elementary (first six grades)
Number	of	teachers	in	your	Negro elementary (first six grades)
					•
				3	Superintendent

Thank you very much for any cooperation you are able to give me.

Yours truly,

Charles M. Kelso

APPENDIX B

Inventory of Teacher Philosophy

Items with an asterisk instead of a number were eliminated by experts consulted after the test had been given.

INVENTORY OF TEACHER

PHILOSCPHY

PART I - ATTITUDE

PART II - PRACTICE

CHARLES M. KELSO
Superintendent of Schools
Angleton, Texas

DIRECTIONS

This inventory consists of two parts - I and II. Part I is designed to sample your attitude toward certain principles of education. Part II is designed to indicate what practices you are actually doing in your teaching. Read each statement carefully before you mark the answers by circling the numbers to the right of each statement.

SCORING

Explanation of scoring for Part I given at the beginning of Part I.

Explanation of scoring for Part II given at the beginning of Part II.

There is no time limit, but work as rapidly as you can. PLEASE RESPOND TO EVERY ITEM.

TEACHER DATA

Years Experience Sex - Male or Female Name of School Graduate of What College Grade Taught

•	
	-
	_

PART I

Instructions: (If you strongly agree with the statement, place a circle around the 5. The other numbers, 4, 3, 2, and 1, mean "agree, " "uncertain, " "disagree, " and "strongly disagree, " respectively).

1,	School officials should make the curriculum, because they are experts.	5	4	3	2	1
2.	Community representatives should be asked to submit their ideas about the curriculum.	5	4	3	2	1
3.	The pupils should have a part in the making of a curriculum.	5	4	3	2	1
4.	The curriculum should be made by experts, for they alone know all the philosophical and psychological needs of the child.	5	4	3	2	1
5.	Teachers should help make the curriculum.	5	4	3	2	1
6.	Curriculum development should be a cooperative enterprise with teacher, research worker, subject matter specialist, psychologist, sociologist, philosopher, educator, sdministrator, pupil and supervisor all making contributions.	5	4	3	2	1
7.	A curriculum organized by the administrators, teachers, student and layman functions better than one constructed by a single group.	5	4	3	2	1
8.	When administrators or other heads deliberately seek to include faculty members in the process of evolving a school program, they are creating conditions most favorable to democracy in administration.	5	4	3	2	1
9.	The purpose of the curriculum is to provide worthwhile and educative experiences for individuals under the guidance of the school.	5	4	3	2	1
•	The curriculum of the school should seek merely the adjustment of students to prevailing social ideas, and not seek the reconstruction of society.	5	4	3	2	1

*	College entrance preparation is less important than other aims of the public school.	5	4	3	2	1
*	The principal aim of the elementary school should be to provide the child with the tools of learning.	5	4	3	2	1
*	The American public school should be available to all children.	5	4	3	2	1
•	Activity for pupil development should be the keynote of the curriculum program.	5	4	3	2	1
10.	The main aim of the curriculum is to give children information.	5	4	3	2	1
*	Individualisation of instruction should be one of the aims of a good curriculum.	5	4	3	2	1
11.	The curriculum should grow out of an analysis of available textbooks.	5	4	3	2	1
12.	Environment should be used as a definite source of material.	5	4	3	2	1
13.	A division of the library containing all types of teaching materials and aids should be accessible to every teacher.	5	4	3	2	1
14.	A curriculum to function properly should be based on the 24-hour living of the student.	5	4	3	2	1
15.	Local situations should play a large role in curriculum making.	5	4	3	2	1
16.	The content of the curriculum should be largely preparatory for more advanced education.	5	4	3	2	ı
17.	The content of the curriculum should emphasize preparation for home-making and family life.	5	4	3	2	1
*	In order to make a good curriculum, factual material from subject matter sources ought to be carefully maintained.	5	4	3	2	1

*	A definite course in mental hygiene should be placed in the high school curriculum.	5	4	3	2	1
18.	Audio-visual equipment should be placed at the disposal of every teacher and the teacher should use it at least part of the time.	5	4	3	2	1
19.	Through proper instruction of well organ- ized subject matter the child can best obtain the means for adapting himself to his environment.	5	4	3	2	1
20.	Vocational training should be blended with the general education but emphasized as student need demands.	5	4	3	2	1
21.	The curriculum should provide, mainly, a good general education for all students.	5	4	3	2	1
22.	The curriculum should be reorganized around areas of interest or areas of living rather than around subjects of study.	5	4	3	2	1
*	Courses of study if used should be unified through correlated material.	5	4	3	2	1
•	A good curriculum should be closely supervised in order to assure its success.	5	4	3	2	1
23.	The curriculum should be constantly revised.	5	4	3	2	1
24.	All curriculums should be made flexible to meet changing needs of all students.	5	4	3	2	1
25.	Curriculum development is the function of teacher and children, in cooperation with parents and administrative school officials.	5	4	3	2	1
25.	It is the child that is to be integrated and not the subject matter; therefore, the curriculum should provide experiences in dealing with real, total, meaningful situations as contrasted with artificial, isolated, meaningless facts.	5	4	3	2	1

27.	The presilige of the teacher suffers when the cooperation of the pupils is encouraged	5	4	3	2	1
28.	Pupil participation in curriculum construction softens the content of study.	5	4	3	2	1
29.	With proper teacher guidance, the pupil can assist materially in arriving at a worthwhile curriculum.	5	4	3	2	1
30.	A pupil participation program results in added in erest and achievement on the part of the pupil.	5	4	3	2	1
31.	Pupil participation can be made to operate successfully in any given situation.	5	4	3	2	1
32.	Teachers know best, and children should do as they are told.	5	4	3	2	1
33.	If left to their own devices, children will only waste time.	5	4	3	2	1
34.	The curr culum should provide pupils the means of evaluating their own progress.	5	4	3	2	1
35.	Teachers have, by reducing to a minimum the studint's opportunity to make choices, failed to train him properly for general living.	5	4	3	2	1
36.	Needs and interests of children, as well as problems to provide experiences, should be a major concern of the curriculum.	5	4	3	2	1
37.	The curr culum should be made mainly to satisfy the needs of the child.	5	4	3	2	1
*	Study un ts not based on student needs contribute little to the student's education.	5	4	3	2	1
38.	What chi,dren need mainly is discipline.	5	4	3	2	1
3 9.	Children need to be left to plan for themselv()s as far as they are able.	5	4	3	2	1

40.	The immediate rather than future needs of the pupils should be considered.	5	4	3	2	1
41.	The curriculum should be organized to give the student what the teacher thinks he needs rather than what the student thinks he needs.	5	4	3	2	1
42.	Pupil interest can be made an adequate motivator for school activities.	5	4	3	2	1
43.	Pupil interest will lag if there is real work to be done.	5	4	3	2	1
44.	Provision should be made in the curriculum for exploration in many fields so that individual interest may be aroused.	5	4	3	2	1
45.	The activity of the pupil should be based on pupil interest solely.	5	4	3	2	1
46,	Pupil interest is an undesirable basis for curriculum organization.	5	4	3	2	1
*	The interest of the pupil should be paramount in the field of subject matter.	5	4	3	2	1
47,	We must separate the sheep from the goats, so a high standard can be set for all to meet.	5	4	3	2	1
48.	Intelligence and achievement tests are wholly adequate tests of ability.	5	4	3	2	1
49.	A student's achievement should be measured in terms of his ability.	5	4	3	2	1
50.	Provision for individual difference is a key problem in curriculum development.	5	4	3	2	1
51.	Evaluation of the curriculum should be made in terms of the difference it makes in the child's attitude.	5	4	3	2	1
52.	Self evaluation is an important method of evaluation in the high school.	5	4	3	2	1

53. Measurement of subject matter achievement should be the chief method of evaluation.

5 4 3 2 1

PART II

PRACTICES IN CURRICULUM

Instructions: (If you always follow the practice in your class work, circle the 5. The other numbers 4, 3, 2, and 1, indicate decreasing frequency of use, with the 1 indicating "never".

1.	The teacher supplants the textbook method of teaching by student activity.	5	4	3	2	1
*	The teacher uses textbooks more than audio-visual aids.	5	4	3	2	1
2.	The teacher uses units of experience in planning her work.	5	4	3	2	1
3.	The children help the teacher plan the units.	5	4	3	2	1
4.	The teacher organizes different types of work areas within the classroom.	5	4	3	2	1
5.	The teacher provides opportunity for a choice of activities.	5	4	3	2	1
6.	The teacher substitutes directed study for question and answer recitation.	5	4	3	2	1
7.	The teacher emphasizes teaching of facts more than total child development.	Б	4	3	2	1
8.	The teacher uses group effort projects.	5	4	3	2	1
9.	The teacher varies the work to fit the different abilities of the pupils.	5	4	3	2	1
10.	The teacher helps children remember the things they need to remember by giving them experiences that will make the learning meaningful and desirable.	5	4	·3	2	1

11.	The teacher considers the physical health of the child an essential part of his education.	5	4	3	2	1
12.	The teacher recognizes the importance of cooperation and social integration by allowing communication and mutual help among children.	5	4	3	2	1
13.	The teacher stresses thinking and under- standing more than memorization.	5	4	3	2	1
14.	The teacher corrects lack of mastery in any field by the use of drill.	5	4	3	2	1
15.	The teacher divides the day into scheduled periods to which the study and recitation of each lesson is limited.	5	4	3	2	1
16.	The teacher follows rigid rules in teaching.	5	4	3	2	1
17.	The teacher resorts to ridicule or sarçasm.	5	4	3	2	1
18.	The teacher permits students to choose their own seats.	5	4	3	2	1
19.	The teacher has the class work in committees.	5	4	3	2	1
20.	The teacher emphasizes verbatim learning.	5	4	3	2	1
21.	The teacher has children memorize rules.	5	4	3	2	1
*	The teacher gives praise frequently.	5	4	3	2	1
•	The teacher allows pupils to express their feelings.	5	4	3	2	1
22.	The teacher expects the same amount of work from all pupils.	5	4	3	2	1
23.	The teacher dominates the class situation.	5	4	3	2	1
24.	The teacher treats the problem child as a patient.	5	4	3	2	1

25.	The teacher punishes failure to learn.	5	4	3	2	1
26.	The teacher attempts to make pupils more alike rather than develop individual differences.	5	4	3	2	1
27.	The teacher controls rather than guiding, developing or stimulating.	5	4	3	2	1
28.	The teacher establishes a bond of warmth and affection with the children.	5	4	3	2	1
29.	The teacher treats the discipline offender as a culprit.	5	4	3	2	1
30.	The teacher makes each pupil feel accepted, at ease, successful, and responsible for helping others.	5	4	3	2	1
•	The teacher takes the pupil's questions seriously.	5	4	3	2	1
•	The teacher encourages friendliness.	5	4	3	2	1
31.	The teacher lets absentees know that they have been missed.	5	4	3	2	1
32.	The teacher encourages pupils to seek ways of helping one another.	5	4	3	2	1
•	The teacher visits each pupil's home.	5	4	3	2	1
33.	The teacher encourages each pupil to collect and share materials.	5	4	3	2	1
34.	The teacher encourages classes to share their projects with other classes.	5	4	3	2	1
35.	The teacher uses community members as resource people in class.	5	4	3	2	1
36.	The teacher seeks projects through which pupils can work for community improvement.	5	4	3	2	1
37.	The teacher uses meetings with parents to reach agreement concerning types of pupil growth desired.	5	4	3	2	1

38.	The teacher appraises the child in terms of how well he achieves goals that are within his reach.	5	4	3	2	1
39.	The teacher brings all persons involved, including pupils, into making judgments about the progress that has been made.	5	4	3	2	1
40.	The teacher studies the child's history and home when he is under-achieving.	5	4	3	2	1
41.	The teacher studies the cumulative record of each child.	5	4	3	2	1
•	The teacher compares achievement scores with individual indices.	5	4	3	2	1
42.	The teacher succeeds in getting all students to assume responsibility.	5	4	3	2	1

APPENDIX C

Tabulation of Results, Item by Item, of Scores on Part I

TABULATION OF RESULTS ITEM BY ITEM OF SCORES ON PART I

Item No.		5			3		2		1		Average Score		Total Average Score
	White	Negro	White	Negro	White	Negro	White	Negro	White	Negro	White	Negro	
1.	67	12	44	10	11	9	8	5	5	4	4.18	3.53	3.98
2.	23	13	67	13	14	8	21	5	10	1	3.53	3.80	3.59
3.	17	12	66	17	29	8	17	2	6	1	3.53	3-93	3.62
4.	73	20	45	7	8	5	存	6	5	2	3.11	3-93	4.17
5.	97	23	35	15	2	1		1	1		4.68	4.50	4.64
6.	103	28	24	9	6	2	2	1			4.69	4.60	4.67
7.	86	26	35	10	12	4	2				4.52	4.65	4.55
8.	77	19	46	15	6	4	2	2	4		4.41	4.18	4.35
9.	95	27	38	10	2	3					4.69	4.60	4.67
10.	25	5	49	7	25	7	26	11	10	10	3.39	2.65	3.22
11.	14	3	41	9	35	9	36	14	9	5	3.11	2.78	3. 03
12.	57	13	60	16	11	6	3	2	4 .	3	4.21	3.85	4.13
13.	112	37	23	3							4.83	4.93	4.85
14.	63	19	54	16	14	3	14	1		1	4.30	4.28	4.30

TABULATION OF RESULTS ITEM BY ITEM OF SCORES ON PART I (Continued)

Item No.	5		4		3		2		1		A S	verage core	Total Aver- age Score
 	White	Negro	White	Negro	White	Negro	White	Negro	White	Negro	White	Negro	
15.	55	19	61	16	11	2	8	3			4.21	4.28	4.22
16.	9	4	51	6	19	16	32	8	24	6	2.92	2.85	2.90
17.	48	16	63	15	20	7	4	1		1	4.15	4.10	4.14
18.	92	32	38	6	3	1	2	ı			4.63	4.73	4.65
19.	8	1	13	2	27	8	51	16	36	13	2.30	2.05	2.25
20.	7 5	22	55	16	5	2					4.52	4.50	4.51
21.	7 3	26	51	13	7	1	4				4.43	4.63	4.47
22.	31	13	45	18	36	5	19	3	4	1	3.59	3.98	3.68
23.	55	15	43	17	26	5	8	1	3	2	4.03	4.05	4.03
24.	81	26	48	11	4	3	1		1		4.53	4.58	4.54
2 5 .	58	19	60	17	14	4	2		1		4.27	4.38	4.30
26.	75	18	51	10	6	7		4	3	1	4.44	4.00	4.34
27.	90	11	31	20	5	9	6		3		4.47	4.05	4.38
28.	20	2	31	8	49	13	17	13	18	4	3.13	2.78	3.05

TABULATION OF RESULTS ITEM BY ITEM OF SCORES ON PART I (Continued)

Item No.	5		ų		3		2		1			verage core	Total Aver- age Score
	White	Negro	White	Negro	White	Negro	White	Negro	White	Negro	White	Negro	
29.	42	12	65	21	24	7	4		•		4.07	4.13	4.09
30.	68	19	.57	18	9	2	1	2			4.42	4.38	4.41
31.	20	8	39	15	42	8	26	7	8	2	3.27	3.50	3.33
32.	33	5	ĻĻ	12	16	10	3 0	7	12	5	3.41	3.05	3.33
33•	8	1	47	9	37	15	30	10	13	5	3.05	2.78	2.99
34.	54	9	62	26	16	5	3				4.24	4.10	4.21
35•	24	3	35	21	32	9	28	5	16	2	3.17	3-45	3.23
36.	79	19	51	19	5	2					4.55	4.43	4.52
37.	62	14	52	13	11	5	10	7		1	4.23	3.80	4.13
3 8.	40	11	60	16	11	9	14	ļ	10		3.79	3.85	3.80
39.	17	4	58	14	29	11	26	8	5	3	3.41	3.20	3-37
40.	21	5	36	16	21	8	39	10	18	1	3.02	3-35	3.10
41.	15	2	22	8	44	12	45	12	9	6	2.92	2.70	2.87
42.	44	15	69	22	14	3	7		1		4.10	4.30	4.14

TABULATION OF RESULTS ITEM BY ITEM OF SCORES ON PART I (Continued)

Item No.	5		4		3		2		1		A S	verage core	Total Aver age Score
	White	Negro	White	Negro	White	Negro	White	Negro	White	Negro	White	Negro	
43.	65	11	54	19	6	<u>i</u>	8	2	2	4	4.27	3.78	4.16
44.	7 3	21	56	17	6	2					4.50	4.48	4.49
45.		3	2	11	22	5	76	16	35	5	1.93	2.78	2.13
46.	60	10	56	22	10	5	8	2	1	1	4.23	3-95	4.17
47.	58	5	48	14	14	15	8	5	7	1	4.05	3.43	3.91
48.	69	8	55	12	7	10	3	9	1	1	4.39	3-43	4.17
49.	54	12	59	24	12	2	5	1	5	1	4.13	4.13	4.13
50.	63	17	63	16	7	6	2	1			4.39	4.23	4.35
51.	12	5	46	19	57	10	19	3	1	3	3.36	3.50	3-39
52.	34	6	69	22	25	9	7	3			3.96	3.78	3.92
53•	33	7	61	13	25	10	13	10	3		3.80	3.43	3.71
ls ;	2727	713	2534	7 51	909	336	691	224	294	96	3.94	3.83	3.91

APPENDIX D

Tabulation of Results, Item by Item, of Scores on Part II

TABULATION OF RESULTS ITEM BY ITEM OF SCORES ON PART II

Item No.	5		4		3		2		1		A S	verage core	Total Aver- age Score
	White	Negro	White	Negro									
1.	33	8	45	14	39	12	10	3	8	3	3.63	3-53	3.61
2.	34	10	58	11	30	14	13	4		1	3.84	3.63	3.79
3.	32	6	29	13	40	8	30	9	4	4	3.41	3.20	3.36
4.	55	18	52	15	23	5	4	1	1	1	4.16	4.20	4.17
5.	31	15	59	17	33	6	12	1		1	3.80	4.10	3.87
6.	42	10	40	6	38	11	14	10	1	3	3.80	3.25	3.67
7.	58	10	40	11	27	12	9	5	1	2	4.07	3-55	4.00
8.	40	9	62	20	27	11	6	-			4.01	3-95	3.99
9.	78	30	46	7	8	2	3			1	4.47	4.62	4.51
10.	69	35	55	5	11						4.43	4.88	4.53
11.	111	36	21	4	2		1				4.79	4.90	4.82
12.	72	18	52	17	10	14	1	1			4.44	4.30	4.41
13.	111	34	21	5	3			ı			4.80	4.80	4.80
14.	5	1	16	3	22	14	38	13	54	9	2.11	2.35	2.17

TABULATIONS OF RESULTS ITEM BY ITEM OF SCORES ON PART II (Continued)

Item No.	5		4		3		2		1		A S	verage cores	Total Aver age Score
	White	Negro	White	Negro	Wh1te	Negro	White	Negro	White	Negro	White	Negro	
15.	36	1	35	3	26	9	30	11	8	16	3.45	2.05	3.13
16.	74	16	34	7	21	14	6	3			4.30	3.90	4.21
17.	91	31	37	3	5	4	2	1		1	4.61	4.45	4.60
18.	13	9	41	11	49	12	29	5	3	3	3.24	3-45	3.29
19.	14	6	38	9	51	16	26	5	6	4	3.21	3.20	3.21
20.	55	25	49	9	25	4	6	1		1	4.13	4.40	4.19
21.	50	9	45	9	26	12	13	6	1	14	3.96	3-33	3.82
22.	96	34	22	4	12	2	3		2		4.53	4.80	4.59
23.	34	20	37	7	71,74	8	17	3	3	2	3.61	4.00	3.70
24.	28	7	30	10	36	9	19	4	22	10	3.17	3.00	3.13
25.	87	13	34	14	8	10	4	. 5	2	1	4.48	3.90	4-35
26.	70	21	33	5	12	2	10	4	10	8	4.06	3.68	3.97
27.	69	20	39	14	22	3	3	2	2	1	4.26	4.25	4.26
28.	84	31	43	7	5		2	1	1	1	4.53	4.65	4.56

TABULATION OF RESULTS ITEM BY ITEM OF SCORES ON PART II (Continued)

Item No.	5		4		3		2		1		A S	verage core	Total Aver age Score
	White	Negro	White	Negro									
29.	82	23	28	8	14	7	9	. 2	2		4.33	4.30	4.32
30.	89	34	45	4	1	2					4.65	4.80	4.69
31.	102	34	26	5	6		1			1	4.70	4.90	4.74
32.	83	25	45	11	6	ħ	1				4.56	4.53	4.55
33.	69	20	46	16	16	3	3	1	1		4.33	4.40	4.34
34.	46	12	41	15	. 35	9	11	2	2	2	3.87	3.80	3.86
35.	34	9	28	9	26	15	26	6	21	1	3.21	3.47	3-27
36.	25	14	43	14	35	10	26	2	6		3.41	4.00	3.54
37.	47	17	41	13	27	6	14	4	6		3.81	4.08	3.87
38.	78	22	43	17	12	1	2				4.46	4.53	4.47
39.	37	10	51	19	31	10	13		3	1	3.79	3.93	3.82
40.	67	24	49	15	15	1	4				4.33	4.58	4.38
41.	67	27	45	11	18	2	3		2		4.27	4.63	4.35
42.	12	9	46	7	49	12	17	5	11	7	3.23	3.15	3.21
ls	2410	763	1690	424	946	286	441	118	183	89	4.00	3.98	4.00

APPENDIX E

Tabulation of Scores of Teachers Classified
According to Schools Where They
Received Their Training

APPENDIX E

Scores of Schools Where Teachers Received

Their Training

White

School	Teacher	Sex	Grade Taught	Score Part I	Score Part II
T.S.C.W.	12	F	9	3. 98	3.67
1.0.0.4.	28	ř	2 2	4.08	3.88
	29 29	ř	~ 4	3.98	4.29
	57	F	Kindergarten	4.34	4.64
			Total	4.02	4.07
Baylor					
University	55	M	5	3.94	4.38
	62	F	Kindergarten	4.23	4.45
•	66	F	6	4.42	4.45
	117	F	Music	3.66	3.67
			Total	4.06	4.24
Southwest					
Texas State College	4	F	4	4.21	3.86
COTTERA	65 .	ř	ሜ 1	4.23	4.67
	119	ř	1	4.19	4.19
	120	F	5	3.85	3.55
	134	F	6	3.79	3.26
			Total	4.05	3.89
IInd manad b-					
University of Houston	1	F	2	3.58	3.40
OI HOUB TON	5	M	Principal	4.08	3.57
	8	f	Principal 4	3.72	3.64
	15	ř	ī	3.85	3.74
	17	ř	i	3.15	3.38

Scores of Schools Where Teachers Received Their Training (continued) White

				Score	Score
School	Teacher	Sex	Grade Taught	Part I	Part II
University	18	F	3	3.91	4.05
of Houston	23	P	i	4.11	4.19
	25	F	ī	3.85	3.57
	27	M	Admin1strator	3.85	3.19
	30	F	6	3.75	3.60
	37	F	5	4.28	4.43
	38	F	3	3.94	3.88
	39	F	5	4.13	3.67
	40	F	2	4.28	3.93
	46	F	4	4.17	3.76
	48	M	Music	3.58	3.86
	51	F	5	3.70	3.88
	53	F	Ž.	4.45	4.36
	54	F	4	4.30	4.55
	56	F	Kindergarten	4.26	4.43
	58	F	1	4.26	4.71
	60	F	6	4.77	4.50
	61	F	Principal	4.51	4.67
	63	F	4	4.36	4.69
	67	F	6	4.28	4.29
	68	F	5	4.23	4.19
	69	ř	3	4.13	4.52
	72	F	3 2	3.60	4.36
	73	F	2	4.23	4.45
	78	F	5	4.26	5.00
	79	F	5	4.81	4.95
	90	F	3	4.09	4.24
	94	r	ĭ	4.09	4.55
	99	F	Principal	4.15	4.14
	106	F	1	3.72	3.79
	107	F	3	3.79	4.29
	108	ř	ă.	3.68	3.83
	114	F	4	3.87	3.71
	127	F	3	3.60	3.91
	128	F	5	3.91	4.31
	129	F	6	4.06	3.40
	130	ř	5	3.66	3.36
		•	•	0.00	0.00
			Total	4.02	4.07

Scores of Schools Where Teachers Received
Their Training (continued)
White

School	Teacher	Sex	Grade Taught	Score Part I	Score Part II
Universit					
of Housto					
after att					
college	26	F	5	4.02	3.93
0077686	4 5	F	ĭ	4.47	4.29
	70	F	3	4.36	4.69
	74	F	3	4.34	4.57
	76	F	5	3.83	4.38
	77	F	5	3,98	4.38
	81	f	2	3.47	3.48
	86	F	3	3.43	3.98
	93	F	2	4.09	4.14
	101	F	5 2 3 2 2 2	3.96	5.79
	105	F	z •	3.91	3.74
	109	F F	2	4.09	4.33 3.74
	111 133	M	Principal	3.94 3.66	3.26
	100	m	Lituciber	J. 00	0,20
			Total	3.97	4.05
Out of					
State	10	F	2	4.21	3.81
	16	F	4	3.70	3.76
	20	F	4	3.72	3.62
	31	P	5	4.26	4.64
	35	M	6	4.25	3.81
	42	ŗ	4	4.34	4.24
	47	F	3	3.49	3.81
	49	f	2	4.45	4.36
	80 86	-	6	4.02	3.91 4.50
	85 88	r	์ โ	4.09 3.23	4.50 3.91
	91	F F F	3	3.94	4.05
	92	ř	3	3.98	4.55
	112	F	2 1 3 3 5	3.91	4.05
	135	F	5	3.77	3.52
			Total	3.96	4.03

Scores of Schools Where Teachers Received Their Training (continued) White

School	Teacher	Sex	Grade Taught	Score Part I	Score Part II
Sam Housto State Col-					
lege	2 3 6 19 34 36 41 50 52 89 97 98 100 122 126 59	TTTTHEFTTTTT	Music 3 1 5 6 1 1 1 6 6 1	4.04 3.58 4.21 3.85 3.66 3.38 4.17 3.85 4.28 3.70 4.09 3.51 3.85 3.96 3.66 4.36	3.85 3.67 4.14 4.10 3.76 4.14 4.19 3.33 4.52 4.21 4.26 3.76 3.71 3.64 3.81 4.71
East Texas State Col- lege		f f m f f f f	4 3 5 6 4 Kindergarten 1 2 1	4.19 3.87 4.04 3.81 4.36 3.36 3.74 3.38 4.13	4.07 4.38 4.00 3.93 4.50 3.79 4.12 3.76 3.81

Scores of Schools Where Teachers Received Their Training (continued) White

School.	Teacher	Sex	Grade Taught	Score Part I	Score Part II
Stephen F. Austin Stat	ie				
College	64	F	1	3.77	4.12
	83	F	1	3.72	4.17
	8 <u>4</u> 95	f F	2 1	3.75 3.75	3.91 3.74
	96	F	Kindergarten	4.34	4.02
	113	F	4	3.96	4.10
	123	M	Principal	3.60	3.62
	118	F	1	3.98	4.26
			Total	3.86	3.99
Texas Uni-					
versity	7	F	1	3.83	3.81
•	43	F	4	3.62	3.81
	131	F	5	3.79	3.88
			Total	3.75	3.83
Mary-Hardin					
Baylor Uni- versity	11	10	a	7 60	7 77 4
ASTRICA	103	P F	2 3	3.62 3.81	3.74 4.38
	104	F	Music	3.75	3.12
			Total	3.73	3.75
North Texas	,				
State Col-			_		
lege	121	F	2	3.81	3.93
	115 125	f	5 2 6	3.6 4 3.96	3.74 3.71
	132	F	<u> </u>	3.40	3.38
			Total	3.70	3.69

Scores of Schools Where Teachers Received Their Training (continued) White

Scho ol	Teacher	Sex	Grade Taught	Score Part I	Score Part II
Other Texas Colleges one teacher					
represented	14	F	2	3.75	4.14
robresensea	21	ř	3	3.45	3.29
	44	F	3	4.09	3.88
	82	F	3 2	3.34	3.24
	110	F	4	3.98	4.26
	75	F	Music	3.53	3.52
			Total	3.69	3.72
Hardin Simmo			_		
University	22	F	2	3.49	3.50
	24	M	5	3.79	3.74
			Total	3.64	3.62
	Tota	al all	Whites	3.94	4.00
			Negro	~ ~ ~ ~ ~	
Prairie Viev	143	F	6	3.85	3.86
	144	F	4	3.91	3.76
	146	F	ē	4.30	4.0
	147	F	3	3.64	3.8
	155	ř	4	3.77	3.7
	157	M	Principal	4.09	4.0
	159	F	4	4.21	4.0
	160	F	3	3.87	4.2
	161	F	6	3.70	4.2
	165	M	6 5	3.72	3.80
	166	M		3.62	3.6
	167	F	Music	3.75	3.7
	175	F	3	3.64	4.08
			Total	3.85	3.93

Scores of Schools Where Teachers Received Their Training (continued) Negro

School	Teacher	Sex	Grade Taught	Score Part I	Score Part II
	200001102	201	31440 2445124		
Texas			_		
Southern	138	F	5	3.74	4.02
	140	F	3	3.92	3.79
	141	F	3 2	4.11	4.38
	142	F	3	3.81	3.60
	149	F	3 1 5 2 3 1	4.20	4.24
	150	F	5	3.38	3.76
	151	F	2	3.75	3.81
	152	F	3	4.06	3.90
	153	F	1	4.00	4.26
	154	F	6	3.42	3.48
	156	F	6 1 1 2	3.92	4.12
	158	f	1	3.87	3.83
	163	f	2	3.79	4.26
	164	F	5	4.23	4.79
	169	F F	5 3 1	3.66	4.52
	170	F	ì	3.60	3.98
	171	F'	2	3.94	4.10
	172	M	4	3.28	3.67
	174	M	Principal	4.00	3.67
			Total	3.85	4.01
Mary Allen	148 173	F	5 2 .	3.66 3.91	3.86 3.93
	2.0	B.		0.01	0.90
			Total	3.78	3.89
All Others	136	F	4	3.57	4.07
	137	F	1	3.96	3.81
	139	F	6	3.98	4.31
	145	F	1	3.66	4.45
	162	F	1 2	4.04	3.90
	168	F	1	3.74	3.79
			Total	3.76	4.05
	Tots	al All	Negroes	3.83	3.98

APPENDIX F

School Scores by Items and Mean Item Scores of All Schools on Part II

School Scores by Items and Mean Item Scores of all Schools on Part II

School	#1	#2	#3	#4	#5	# 6	#7	# 8	#9	#10	#11	# 12	#13	#14	#15	Mean Score
1.	3.84	2.88	4.06	3.80	3-93	3.94	3.15	3.50	2.64	4.00	3.00	3-75	2.71	3.64	3.67	3.61
2.	3.68	3.88	3.81	3.50	4.66	4.11	3.38	3.38	2.93	4.25	3.00	3.25	3.86	3.18	4.00	3.79
3.	2.95	3.13	3.38	2.80	4.62	3.50	3.31	3.00	2.42	4.25	3.25	3.25	3.00	3.00	2.33	<u>-</u> ,3.36
4.	3.89	4.00	4.25	3.80	4.79	4-33	4.08	3.63	3.57	4.63	3.25	3.50	4.57	4.18	4.33	4.17
5.	3.74	4.00	3.88	3.30	4.48	3.94	3.62	3.50	3.29	4.25	3.00	3-75	4.00	4.64	4.00	, 3.87°
6.	3.84	3.50	3.63	3.60	4.10	3.72	4.00	3.88	3.43	3.38	2.75	3.25	3.57	3.09	3.17	3.67
7.	4.11	4.50	3.88	4.10	4.55	3.61	4.15	3.50	4.14	3.88	3.00	3.25	3.71	3.27		4.00
8.	4.31	4.25	4.13	3.70	4.72	3.94	3.62	3.25	3.50	4.00	3.50	3.75	4.00	3.36	3.67	3.99
9.	4.63	4.25	4.13	4.20	4.86	4.67	4.39	3.88	4.36	4.88	3.50	4.50	4.86	4.55	5.00	4.51
10.	4.63	4.25	4.44	4.00	4.55	4.22	4.39	3.88	4.50	4.75	4.75	4.50	5.00	5.00	5.00	4.53
11.	4.84	4.88	4.88	4.60	4.90	4.50	4.92	4.50	4.93	5.00	4.75	4.75	4.86	5.00	4.83	4.82
12.	4.68	4.13	4.63	4.10	4.90	4.89	4.00	3.50	3.86	4.25	4.50	4.50	4.29	4.36	4.0Ó	4.41
13.	4.79	4.88	4.88	4.50	4.93	4.67	4.92	4.75	4.71	4.88	5.00	4.75	4.71	4.64	5.00	4.80
14.	1.89	2.25	1.88	2.80	1.66	2.00	2.54	2.00	3.36	2.63	1.50	2.50	2.29	2.18	2.83	2.17
15.	3.05	3.25	2.81	3.20	4.62	3.78	2.62	3.00	3.43	2.50	1.75	2.75	2.00	1.82	1:67	3.13.

School Scores by Items and Mean Item Scores of all Schools on Part II (Continued)

School	#1	#2	# 3	#14	# 5	# 6	· #7	# 8	# 9	#10	#11	#12	#13	#14	#15	Mean Score
16.	4.16	4.75	3.88	4.10	4.97	4.11	3.92	4.00	4.29	3.75	3.50	5.00	3.14	3.00	4.00	4.21
17.	4.21	4.75	4.88	4.20	4.97	4.39	4.38	4.50	4.71	5.00	3.25	4.75	4.00	4.73	5.00	4.60
18.	3.05	3.25	3.38	3.40	3.34	3.00	3.38	3.13	3.21	3.75	3.25	3.50	5.00	3.36	3.83	3.29
19.	3.42	4.00	2.94	3.20	3.45	3.11	3.23	2.88	2.93	3.13	3.75	3.50	2.71	3.27	3.17	3.21
20.	3.68	4.50	3.44	3.90	4.72	4.06	3.85	4.25	4.21	4.63	3.75	4.75	41.14	4.27	4.83	4.19
21.	4.00	3.63	3.50	3.40	4.28	4.28	4.15	3.00	3.79	3.50	2.50	3-75	3.86	2.82	3.67	3.82
22.	4-79	5.00	3.56	4.50	4.83	4.67	4.31	3.88	4.86	4.50	5.00	5.00	4.86	4.73	5.00	4.59
23.,	3.21	3.63	3.94	3.10	3-93	3. 39	3.54	3.88	4.21	4.00	3.25	5.00	4.00	3.82	4.17	3.70
24.	3-37	3.25	2.56	2.60	3-55	3.28	3.54	3.38	2.93	3.00	4.00	3.00	2.00	2.91	2.83	3.13
25.	4.16	4.75	4.56	3.90	4.69	4.78	4.69	3.63	4.50	4.13	3.50	4.00	4.43	3.45	4.00	4.35
26.	3.42	3.38	4.19	4.00	4.62	4.28	3.77	3-75	4.21	4.38	4.00	5.00	2.29	3.09	4.33	3-97
27-	4.00	4.75	4-37	3.50	4.72	4.56	4.38	3.88	4.29	3.88	5.00	4.25	4.14	4.09	4.67	4.26
28.	4.42	5.00	4.38	4.30	4.90	4.50	4.31	4.00	4.57	4.38	5.00	4.75	4.86	4.55	4.67	4.56
29.	4.21	4.63	4.25	3.90	4.76	4.56	4.54	3.38	3.86	4.00	5.00	4.00	4.29	4.18	4.64	4.32
30.	4.58	4.88	4.43	4.30	4.86	5.00	4.77	4.75	4.64	4.63	5.00	5.00	4.86	4.73	4.83	4.69

School Scores by Items and Mean Item Scores of all Schools on Part II (Continued)

School	, #1	#2.	#3	#4	#5	# 6	#7	#8	#9.	#10	#11	#12	#13	#14	#15	Mean Score
31.	4.74	4.88	4.19	4.40	4.90	4.83	4.77	4.38	4.86	4.88	5.00	4.50	4.71	5.00	5.00	4.7年
32.	4.47	3.75	4.31	4;30	4.83	4.67	4.77	4.25	4.29	4.63	4-75	4.25	4.57	4.55	4-33	4.55
33-	4.16	3.88	4.88	4.30	4.55	4.56	4.31	4.00	4.21	4.50	5.00	4.25	4.29	4.18	4.33	4.34
34.	3-95	3.50	3.56	3.40	4.48	3.89	4.08	3.25	*3-57	3.63	5.00	3.75	3.43	4.09	3.16	3.86
35-	2.05	3.25	1.94	2.80	4.79	3 +39	2.77	2.13	-3-29	4.00	4.25	2.50	3.43	3.09	3.67	3.27
36.	3.00	3.63	3.31	3.10	4.41	3.44	3.23	2.25	2.93.	4.13	4.75	3.50	3.57	4.18	3.83	3-54
37.	2.95	3-75	3.31	3.40	4.72	4.00	4.31	3.00	4.14	4.50	4.50	3.50	3.14	3.91	4.50	3.87
38.	3.89	4.50	4.44	4.10	4.90	4.67	4.31	3.63.	4.71	4.38	4.75.	4.50	4.43	4.55	4.67	4.47
39•	3.11	4.25	3.69	.3.50	4.59	3.22	3.46	2.88	3-93	4.00	4.50	3.25	4.00	4.18	3.00	3.82
40.	4.00	4.63	3.94	4.00	4.90	4.50	4.31	3.38	4.57	4.63	_5.00	4.50	4.57	4.45	4.50	4.38
41.	. 4.47	4.25	3.81	3.90	4.62	4.11	3.08	3.61	4.50	4. 88	4.75	4.25	4.00	4.64	4.83	4.35
42.	3.36	2.63	3.44	3.50	3.28	3.61	3.00	2.75	- 3.36	4.36	2.00	2.25	2.86	2.82	3.83	3.21
otals	4.00	4.04	3.83	3.72	4.47	4.03	3.95	3-55	3.92	4.18	3.91	3.99	3.86	3.90	4.06	: