A CRITICAL EXAMINATION OF SELECTED INSTRUCTIONAL PRACTICES

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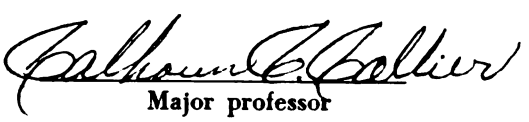

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By

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ABSTRACT

A CRITICAL EXAMINATION OF
SELECTED INSTRUCTIONAL PRACTICES

by Douglas M. Gilmore

The purposes of this study were to collect a base of the best information available on human learning, growth and development and the social foundations of education, and to suggest what this base means in practice; to ascertain the prevalence and extent of selected instructional practices of teachers selected from the Michigan Education Association; to compare the practices reported with what the teachers said they believed to be desirable; and to examine the teachers' questionnaire responses in relation to the principles described in the base.

To ascertain the status of selected instructional practices a questionnaire was sent to a five per cent random sample of Michigan Education Association members who were classroom teachers at the time of the survey, May, 1961. Response was over half (1,417) of the 2,830 teachers contacted. They were asked to indicate the extent of certain instructional practices and to state their opinion about the desirability of the practices. In effect, they said, "This is what I do, and this is what I believe would be the best practice."

The effect of: years of college education; years of teaching experience; and level of teaching, elementary or secondary, on (a) the stated practices and (b) the beliefs of the teachers about the desirability of the practices was analyzed. Basic data for the study were derived from questionnaire responses and from educational literature.

Major conclusions were:

(1) There was a difference between the instructional practices reported by the teachers and their ratings of the desirability of the practices. In most instances, the teachers seemed to recognize that the "good" practices (as defined by the study's base) should occur more frequently. Conversely, they desired less frequency for the practices defined as "not good."

(2) Exception to the above conclusion was found in the items classified as "goals of teaching." The base described such goals of teaching as "wise use of time," "ethical behavior," and "ability to think and evaluate" in a very favorable way. Although the responses of the teachers indicated these goals were dominant in their actual teaching, they expressed the desire they be of lesser importance, or, ideally, occupy less of their teaching.

(3) There was a difference between what the teachers said they do and what the base suggested they do. In general, their practices fell short of the ideals proposed in the base.

(4) With the exception of items in "goals of teaching," there was practically no difference between what the

teachers thought they should do and what the study's base suggests; thus, they do know what is "good," but do not always practice these ideals.

(5) Elementary teachers showed better practices than secondary teachers, and they desired more of the "good" practices than secondary teachers.

(6) Teachers with more years of college education generally favored the "poorer" practices. The more years of college preparation, the poorer were the practices.

(7) Teachers with more years of teaching experience generally favored the "better" practices. The more years of teaching experience, the better were the practices.

(8) The teachers were "free to choose the method of teaching" over four-fifths of the time, and the most important source for "establishing goals for education" was the teacher.

(9) The influence on "goals for education" by "representatives of the community" or "the school administration" was very slight.

(10) The single most important factor in control or change of the teaching-learning process is the classroom teacher.

(11) Another powerful factor in the teaching-learning process seemed to be the textbook.

(12) Thus, any efforts to improve instructional practices must focus on the individual teachers and their

perceptions, coupled with careful analysis of the role textbooks play in the climate for learning of the individual classrooms.

ACKNOWLEDGMENTS

This study would not have reached its final stages without the assistance and guidance of many, many persons, most of whom must necessarily go unnamed, but not unremembered.

Special credit and gratefulness are due Dr. Calhoun Collier, chairman of the guidance committee and thesis director. This writer aspires to be the kind of teacher exemplified by him.

In addition, I would like to thank the members of the guidance committee, Dr. Abram Barch, Dr. John Mason, and Dr. Floyd Parker, for their encouragement, understanding, and assistance. Their help was extended in unstinted amounts, not only on the writing, but from the beginning of my graduate program at Michigan State University.

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To all of the many fine members of the College of Education credit must be given for stimulating and enriching my understanding of Education.

The generous cooperation of Dr. Martin Palmer, Director, and Mrs. Mary Palmer, his good wife and colleague,

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D. M. G.

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INTRODUCTION

The enigma which so often confronts those who attempt to improve educational practices is the wide divergence between good educational theories and practice. Cronbach says, regarding textbooks, "In one secluded corner we find some writers planning an ideal school for an ideal world. In another we hear quite a different conversation, about size of type, state adoption, . . . and other tangible details. The gap is something like that from Plato's Republic to ward politics in a midwestern stockyards neighborhood."[1] Speaking specifically of teaching, Jamieson and Hicks point up this problem when they quote the neophyte teacher, "How can I apply the theories and principles discussed here to my day-by-day teaching?"[2] And one often hears the school administrator or teacher-educator claim that classroom teachers seldom use the findings of research which are available to them. These examples illustrate the gap between theory and practice.

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[1]L. J. Cronbach (ed.), Text Materials in Modern Education (Urbana, Illinois: University of Illinois Press, 1955), p. 188.

[2]M. C. Jamieson and W. V. Hicks, Elementary School Curriculum (New York: American Book Company, 1960), p. 88.

Assuming that this problem is crucial in the improvement of education, what can be done to help teachers implement the wealth of knowledge about social forces, as well as human learning, growth, and development in their classrooms?

To what extent is there a difference between what the theorists say and what teachers do? Do the teachers know what is best and yet not practice this ideal, due to various other circumstances, or are they unaware of the principles of educational psychology, human growth and development, and the social foundations of education?

Is there any difference in instructional practices from one teacher to another, or by teachers with different teaching assignments? Do teachers with more years of college, for instance, or more years of teaching experience, perhaps, teach in a different manner than those with less of either factor? Is there any difference in the teaching in the elementary grades, compared with the teaching in the secondary grades? These are some of the questions which this study purports to examine.

Purposes

The purposes of this study, then, were:

1) to develop a base from the best information available on human learning, growth, and development as well as the social foundations of education, and to suggest what this base means in practice,

2) to ascertain the prevalence and extent of

selected instructional practices, as perceived by a random sample of teachers selected from the roster of the Michigan Education Association,

3) to compare the practices reported with what the teachers said they believed to be desirable, and

4) to examine the teachers' questionnaire responses for selected instructional practices in relation to the principles described in the study's base.

Definitions

Instructional practice: The term was used herein to mean the acts of teaching or beliefs of teachers concerning their day-by-day classroom acts as they actually occur.

Base: The base was this writer's synthesis of the writings of contemporary leaders in the field of education. It included both references to child growth and development as well as social forces, since these two factors are believed to form the foundation for instructional practices.

Assumptions

The major assumption was that the stated incidence of instructional practices as given by the teachers was, in fact, a true picture of their teaching activities; and, that their statements as to the desirability of these practices represent their true beliefs concerning the "ideal" practices.

A second assumption was that the sample of the total population (all teaching members of the Michigan Education Association) which responded to the questionnaire was

representative of the classroom teachers who were members of the Michigan Education Association, at the time of this survey.

It was assumed, further, that to the extent the sample was not typical of the "average" teacher in Michigan (as defined by statistics giving the educational level of all Michigan teachers obtained from the Department of Public Instruction), it tended to represent the better educated and more professionally committed teachers. Thus, the instructional activities cited might be considered to represent the practices of the more enlightened teachers. This assumption was based on the finding that the number of years of college education for the sample was somewhat higher than that shown by the figures from the Department of Public Instruction for all teachers in Michigan.

Hypotheses

1) There will be a difference between the selected instructional practices as reported by the teachers and their ratings of the desirability of these practices.
2) There will be a difference between what the teachers say they do and what this study's base suggests they do.
3) There will be no difference between what the teachers think they should do and what the study's base suggests.
4) Instructional practices will more nearly

correspond to this study's base for the following:

a. elementary teachers,

b. teachers with more years of college education,

c. teachers with more years of teaching experience.

Method

This study attempted to ascertain the status of selected instructional practices as perceived by a five per cent random sample of Michigan Education Association members, who were classroom teachers at the time of the survey. These teachers responded to a questionnaire concerning the extent to which certain instructional practices occurred in their teaching. They also were asked to indicate their opinion about the desirability of the practice. In effect, they were saying, "This is what I do, and this is what I believe would be the best practice."

The base, which was compared with the teachers' stated practices, was developed from writings in the field of education.

The teachers' reported practices were compared with their expression of the desirability of these practices. Also, selected teachers' responses were examined in relation to the principles described in the study's base.

The effect of the number of years of college education; years of teaching experience; and level of teaching,

either elementary or secondary, on (a) the stated instructional practices and (b) the beliefs of the teachers about the desirability of the practices was analyzed.

Basic data for the study were derived from responses to the questionnaire shown in the appendix and from educational literature.

PART I

SIGNIFICANT ASPECTS OF THE TEACHING-LEARNING PROCESS

What are the primary characteristics of a good teaching-learning situation? The following is an attempt to answer this question. It is derived from a selection of the writings in human development and learning, as well as the social factors influencing education.

Although it is accepted that there is no one "best" teaching method, it is suggested that there are certain basic tenets which should serve as the base of any good teaching-learning situation. When a skillful teacher and a group of children interact in the classroom with learning as their common goal, it is very difficult to describe such a complex and dynamic situation in a succinct, yet comprehensive manner. One way to describe the process is by separating it into several aspects and analyzing each in some detail. Although this separation will be helpful for the purpose of analysis, one should not forget that the most effective teaching occurs as a well-integrated whole, rather than in the somewhat disjointed fashion in which it appears when divided into descriptive subtopics. With this in mind, various aspects of the teaching-learning process will be discussed in the following chapters:

I. The Social Foundations of Education

II. The Psychological Foundations of Education

III. The Relationship of Learner and Teacher

IV. The Organization for Instruction

V. The Materials of Learning

VI. The Evaluation of Learning

CHAPTER I

THE SOCIAL FOUNDATIONS OF EDUCATION

Education in a democracy should be influenced by society and the society should feel the impact of its schools. Any discussion of teaching-learning should recognize the function and purpose of education in the democratic scene.

The success of a democracy is predicated on the functioning of an educated citizenry in terms of self-government. But it is equally important in our modern society that education serve the needs of industry and commerce. The insatiable demand for more highly skilled workers in our country is interestingly coupled with the occurrence of more leisure hours for these same workers. The resultant expectation of education is for more knowledge and skill in working and for more knowledge and skill in using an increasing amount of time when not working.

If the needs of society could be ignored, the job of educators would be comparatively simple. The courses of study could be standardized, and the amount of learning could be quantified, thus defining the job of teaching as that of imparting a certain specified amount of knowledge in a given amount of time to all of the learners.

On the other hand, when the needs of society form the basis for education, complexities and difficulties challenge the educator from all sides. The influence of society on education can be understood better by examining some of the values held by our society.

The following five values, or democratic ideals, are listed by Everett:

1. Self-reliance, a conviction that people can accomplish whatever they seek to accomplish, has long been a value highly esteemed by Americans.
2. In American society the people are sovereign.
3. Freedom of every individual to develop to his optimum potential is an accepted American ideal.
4. Responsibility of the individual for the common good is an accepted democratic ideal.
5. A pragmatic approach to solving problems is espoused by Americans.[1]

The reflection of these values in our educational system requires a high degree of social awareness on the part of the educators and a complex system with many variables operating in unison. There is yet much room for innovation and improvement in our schools, if they are to meet the challenge of implementing these basic values of society.

If self-reliance is to be developed, the schools must, from the beginning, provide experiences which help

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[1]Samuel Everett, "Values in Curriculum Decision Making," Balance in the Curriculum, 1960 Yearbook of the Association for Supervision and Curriculum Development (Washington 6, D.C.: 1201 Sixteenth St., N.W., National Education Association, 1961), pp. 34-44.

each learner to acquire a healthy self-respect. The psychological principle that "success begets success" is an important facet of developing self-confidence. The curriculum must be structured so that the chances for expression of self-reliance can be fostered. The autocratic teacher who imposes a predetermined, organized subject on the learner leaves little or no opportunity for the expression of self, in an acceptable way, by the learner. Our automated, mass-producing society is damaging to the concept of self-reliant individuals and the schools should lead the way in countering this force in our society.

Popular sovereignty as a value of our society gives the public school, with education guaranteed to all who can profit by it, an irrevocable function. Local control of the schools represents the will of the people, which at the same time assures the people's rights and establishes the schools' responsibility to the public. This unique relationship between free people and their schools requires a deep sense of responsibility on both sides. The people must be concerned and involved with their schools while the educators must never forget the needs of the people.

If each individual is to develop to his optimum, the schools must provide a broad, flexible, individualized curriculum. Herein lies one of the most important mandates of society for the schools. There must be a type of education available which is suitable for all Americans. This is the basic difference between the European and American systems

of education. Once again, if the goal of the schools were only to prepare persons for college, there would be little need for a broad, comprehensive curriculum. Since there are more people who will not go to college than there are those who will, there must be provision made for a type of "terminal education" which will help the non-college persons develop to their maximum potential. Another facet of this societal value is the extension of public school programs to those physically and mentally handicapped who need special consideration.

Any attempt to meet the needs of every individual in our society will necessitate education appropriate to the needs of the retarded, the workers and homemakers, the college-bound, and the gifted. A program which meets the needs of all these different kinds of individuals must necessarily be complex and flexible.

If this value of optimum growth for each individual is to be truly operative, then our schools must provide more than academic growth for each individual. Personality adjustment, as well as emotional and mental health, are just as important to optimum growth for each person as is academic achievement. Everett summarizes this idea well when he says:

> An accepted purpose of the public school, as stated or implied in innumerable publications of local boards of education and state educational authorities, is that

> of full personality development. This includes the intellectual, moral, esthetic, social, emotional and physical growth of all children and youth.[1]

Responsibility of each individual for the common good is an interesting and important difference between the American and European educational systems. The schools must help promulgate this basic value of democracy in two ways. First, it should be one of the goals of education to help each person accept his responsibility for the common good. It is one of the most important concepts of democracy that each individual pays taxes, votes, and participates in other social responsibilities, both local and national. Every enterprise should be judged in the light of its effect on the people as a whole, rather than its effect on a favored few. Secondly, the schools should operate upon this principle, from the individual classroom up through a whole educational system. The individual learners should have the opportunity to practice democracy with the concommitant learning of the value of the common good over individual rights.

Americans, as a whole, favor the pragmatic approach to solving problems. Essentially, this means to use the so-called "scientific method" of solving problems, rather than relying on higher authority, traditions, influence, government, etc., for solutions. Our society favors getting the facts, and making judicious decisions based on the facts,

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[1]Everett, p. 46.

rather than precedence. Thus, our schools are expected to abide by decisions based on research, knowledge, and facts in the same manner that our industries and other social institutions are expected to function. Our American heritage is witness to the ideal that man must think, and think for himself. The right to question the value of any of the social institutions, and to judge them in comparison to scientific knowledge, is basic to our society. This results in an obligation by society to examine closely the activities of its schools, expecting change to conform to new cultural needs as they arise. At the same time it obligates educators to provide factual and knowledgeable bases for the activities of the schools. The field of education must draw from such fields as sociology, psychology and philosophy, as well as from itself, in a scientific manner, in order to justify its actions. To the extent that education can do this will be the extent that it will be recognized as a legitimate profession in our society.

All of the foregoing helps to explain why educational practices are open to public criticism and why educators must recognize the social foundations of our educational system. In considering a few of the contemporary criticisms and recommendations made by members of our society, it would behoove educators and critics alike to remember Everett's admonition:

> It is in the American tradition in education, as in other aspects of our life, that new knowledge shall be sought and evaluated. American social values have

> themselves been tested by 250 years of experience. Proposals for educational change which are at variance with known facts, or which seek to modify established values, need especially thoughtful examination. Such proposals must be subjected to the same type of careful inquiry which has in other fields made America one of the most advanced countries of the world. Using the method of intelligence, educators have a responsibility always to seek new knowledge and new insights appropriate to the educational task.[1]

Following are a few examples of the contemporary attempts to change the educational system of the United States.

James B. Conant has achieved much respect from both inside and outside the field of education for his recommendations. They were well founded in fact, so it seemed, and carried the weight of prestige associated with both Dr. Conant and the foundation which sponsored his research. Although he commends the comprehensive high school, his emphasis seems to be on the "upper track" of the several tracks which he proposes for learners to follow. In a book of readings on curriculum development by Alcorn and Linley, Dr. Conant says, "The point I wish to make is that I believe it is possible for our schools to do far more for children with special gifts and talents than at present, without jeopardizing our basic educational philosophy. . . . I am convinced the comprehensive high school is an excellent American invention."[2]

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[1]Everett, p. 46.

[2]Marvin D. Alcorn and James M. Linley (eds.), Issues in Curriculum Development (Yonkers-on-Hudson, N.Y.: World Book Co., 1959), pp. 65-66.

It is interesting to note that most of the public acclaimed Dr. Conant's report, while most thoughtful educators criticized his recommendations for their academic leanings and tendency to standardize the educational pattern too rigidly. There was one educator, however, who read excessive vocationalism into the Conant Report. Dr. Koerner calls it a tragedy that our schools allow eighty-five per cent of their population to follow the tracks to homemaking and vocations.[1]

Thus one sees the type of conflicting statements which are often made and the need for a knowledgeable and sound analysis of these pressures.

Admiral Hymen Rickover has become a very vocal self-appointed critic of American education. He demands more academic emphasis with the elimination of the "frills" such as driver education and home economics.[2]

Other pressures can be seen in the analysis, by DiVesta, of the demands for more use of educational television and teaching machines in the classrooms, apparently in an effort to match the automatizing of industries.[3]

Still other pressures can be found for longer school

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[1]James D. Koerner, "The Tragedy of the Conant Report," Phi Delta Kappan, XLII (December, 1960), pp. 121-124.

[2]Admiral H. G. Rickover, "A Comparison: European vs. American Secondary Schools, Phi Delta Kappan, XXXX (November, 1958), pp. 60-64.

[3]Francis J. DiVesta, Balance in the Curriculum, 1960 A.S.C.D. Yearbook, p. 78.

days; extended school year; reorganized time schedules; team teaching; variation in class size from 300 for lectures to as few as ten for discussion, or even for individual studying; and the dissemination of knowledge by airborne television.

These demands for sweeping changes are supplemented by others which emphasize a particular segment of the total school program, such as science, or reading, or even the phonics method of teaching reading, proposed (but not invented) by Rudolph Flesch. Arthur Gates, noted specialist in the teaching of reading, quotes this deceptively simple solution to our educational problems from Mr. Flesch's book Why Johnnie Can't Read, on pages 2 and 3, "It's very simple. Reading means getting meaning from certain combinations of letters. Teach the child what each letter stands for and he can read."[1]

So the pressures are building, from many corners of our society, all attempting to improve the educational system in one way or another. The demands of our society for ever better educated individuals is evident. The question which needs answering is, "What constitutes an educated person?" The tremendous increase in factual knowledge which is occurring daily (so great some call it the "explosion" of knowledge) underlines the futility of our schools attempting to teach more and more of certain factual subjects. What

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[1]Alcorn and Linley, p. 232.

needs to be done is to develop learners, that is, persons with well-established patterns of knowing how to learn in the area of their particular interest. This ability to continue learning throughout life, coupled with a well-balanced command of the tool subjects, will help an individual to function better in our complex society than an even fully mastered accumulation of specific subject matter details.

Balance in the Curriculum, the title of the 1960 Yearbook of the Association for Supervision and Curriculum Development, is indicative of this emphasis. Halverson states that

> another aspect of balance relates to the nature of the individual learner and how he learns. . . . There is a unity in the learning activities of students which stems from the inter-relationships of intellectual interests and activity, physical growth and activity, emotional characteristics and the socialization needs of learners.

He concludes that what is needed is

> an appropriate distribution of attention to the cognitive and affective components of teaching-learning experiences. . . . Adding all these elements together, it is clear that, important as societal needs and demands are in determining the curriculum of the school, there remains for the professional educator the responsibility of injecting the psychological foundations of curriculum making, so that a balance may be secured between the societal and individual needs served by the school.[1]

In summary, then, the resolution of the dilemma presented by the social forces affecting our schools lies not in "more of this and less of that," or "better standards,"

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[1]Paul M. Halverson, "The Meaning of Balance," Balance in the Curriculum, 1960 A.S.C.D. Yearbook, pp. 9-10.

or "academic excellence," but rather in providing learning experiences in each and every area of the schools, whether physical education or nuclear physics, which help the learner better learn how to learn. For the mark of the truly educated man is not to be found in how much he knows, since the amount of knowledge is comparatively relative and limitless, but rather in how well he knows how to learn.

> The school can contribute to this end by helping children in their day-by-day activities to decide when to subordinate individual desires to social goals; by helping them to see the true worth of each individual; by teaching them to appraise their work with honesty and integrity; by showing them the satisfaction that can come with unselfish living. The school must be a place where children and youth can learn how to bring scientific methods to bear in adjusting to change and where they can develop the flexibility of mind imperative to successful living in the twentieth century.[1]

The direction, then, of educational activities in relation to societal forces demanding change, should be toward creating better learners, who have developed the need to learn more, and the ability to know how to learn.

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[1]Florence B. Stratemeyer and Others, Developing a Curriculum for Modern Living (2nd ed.; New York: Bureau of Publications, Teachers College, Columbia University, 1957), p. 49.

CHAPTER II

THE PSYCHOLOGICAL FOUNDATIONS OF EDUCATION

The knowledge of how children grow and develop points to four clearly defined areas of growth: physical, intellectual, social, and emotional.[1] Each of these areas of development is closely related in the maturing human and the teacher must be aware of, and plan in accord with, these relationships. For the purposes of this discussion, the physical growth of the learner will be treated rather briefly. Intellectual growth will be discussed separately, while the social and emotional growth of the learner will be considered as "personality growth," following the design of Combs and Snygg.[2]

Physical Growth

There are two important conclusions which come from the studies of physical growth and development:

1) Physical growth proceeds through certain definite stages or patterns as the body matures.

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[1]Willard C. Olson, Child Development (Boston: D. C. Heath and Co., 1949), pp. 67-68.

[2]Arthur W. Combs and Donald Snygg, Individual Behavior (New York: Harper and Brothers, 1959).

2) Among individuals there is a great variability in growth rates through these stages.

Thus we find that if a teacher ignores the fact that the learning of gross motor movements normally precedes the learning of fine motor movements, then attempts to teach cursive writing before the child has developed good gross motor control may be fruitless.

The fact of stages of growth and individual differences in growth rate require that teachers plan activities which meet the needs of the variety of stages present in a given classroom. As an example, there probably are some third-grade children who can sit quite still for prolonged periods of time. Most eight-year-old children, however, are faced with the developmental task of controlling a restless body which demands much gross muscular action. The teacher should plan learning activities, therefore, which meet the needs of those children who have not matured enough for prolonged, quiet sitting by alternating physical and nonphysical activities. If this is not done, most of the children will be faced with the nearly impossible task of conforming to the urgent physical needs of their bodies and the conflicting requirements of the teacher-imposed environment. The resultant lack of harmony will hinder the learning of the child.

Carmichael observes that even disregarding differences in attitude about learning, the neuromuscular ability

of young children is less mature than that of older persons, thereby affecting ability to learn.[1]

It should be clear that younger learners will present different problems to the teacher than older learners. When a teacher intends to teach some specific subject matter, but disregards the maturity and characteristics of the learner, then the best learning cannot result.

If one adopts the view that children have intrinsic needs and individual worth as they are at present, not later, when they get through a "stage," or when they "grow up," then the way a teacher relates to them will be altered considerably. The teacher will think of the learner as someone who, at this very moment, has vital personal needs and valid interests with certain particular abilities and characteristics which may provide a unique contribution to the learning situation. This is in sharp contrast to the concept of the learner "hearing a lesson," which will do him good "when he is grown."

Mental Growth

What is mental growth, or learning? There are many definitions, but this writer has chosen one by Burton which seems particularly appropriate, "Change in the individual, due to the interaction of that individual and his environment, which fills a need and makes him more capable of

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[1]Leonard Carmichael (ed.), Manual of Child Psychology (New York: John Wiley and Sons, Inc., 1946), p. 439.

dealing adequately with his environment."[1] Burton follows this definition with the conclusion that there are two main, overall types of learning theories: the "stimulus-response" and the "cognitive." Burton suggests this definition fills the need for "setting up a reasonably consistent statement of principles" useful to teachers.[2]

The suggested two main categories of learning theories are: the stimulus-response, which is the older of the two and would include the behaviorists; and the cognitive, or the organismic theory.

The stimulus-response school of thought was in part responsible for the recent increased production of "teaching machines and programed learning materials. Some of these materials are limited to the known efficiency of stimulus-response type repetitions, with immediate reinforcement. Hilgard thinks this is an acceptable method of teaching, if the learning goal is memorization of unrelated facts that are to be automatized.[3]

However, there is an increasing effort on the part of both stimulus-response and cognitive psychologists to

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[1]William H. Burton, "Basic Principles in a Good Teaching-Learning Situation," Phi Delta Kappan, XXXIX (March, 1958), p. 242.

[2]Burton, p. 242.

[3]E. R. Hilgard, Theories of Learning (2nd ed.; New York: Appleton-Century-Crofts, Inc., 1956), p. 487.

adapt materials of programed instruction so they emphasize problem solving, thinking, and questioning.

Anderson and Gates, in 1950, said that cognitive learning "implies awareness or knowing, discovery or insight, as opposed to blind, mechanistic reacting."[1] The modern educator or psychologist would not reject the stimulus-response theory thusly, but recognizes its value in teaching, and has developed a broader and more comprehensive interpretation of the process of learning.

Burton says that the public schools of our democratic society are dedicated to the fulfillment of the complete capabilities of each individual,[2] and it is submitted that the cognitive theory of learning will most nearly help teachers develop the potential of each learner. This is due to the fact that much more "transfer" of learning takes place when the learning is meaningful and understood. Stratemeyer shows that there is little or no research evidence to support the value of taking certain subjects for "mental discipline," but rather that it is <u>how</u> any subject is taught which makes the difference. Thus, "whether or not the study of geometry leads to better problem-solving

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[1]Lester B. Anderson and Arthur I. Gates, "The General Nature of Learning," <u>Learning and Instruction</u>, Forty-Ninth Yearbook of the National Society for the Study of Education, Part I (Chicago: The University of Chicago Press, 1950), p. 15.

[2]Burton, p. 243.

ability seems to depend upon whether geometry is taught with problem-solving skills in mind."[1]

Advocates of the stimulus-response type of learning would support the mental discipline idea, stating that memorizing long lists of things will help strengthen the mind. Those who support the cognitive theory would suggest that memorizing is helpful for memorizing purposes only.

What is needed to develop the most meaningful learning with a maximum of carry-over into the learner's life outside the school is at least two conditions. First, there needs to be similarities in the learning situation and life itself. Second, there needs to be the opportunity to form generalizations about the original learning. This poses a much more difficult teaching problem than merely having children learn a great amount of unrelated facts. It is difficult, and sometimes impossible, to unite learnings in all instances with actual applications to life. Nevertheless, it must be attempted in order to help learning become more useful and permanent. The development of generalizations can result from the teacher's efforts to encourage the children's use of the problem-solving approach with emphasis on discussion, experimenting, and reaching conclusions.[2]

Only when a learner can achieve the integrity, strength, and pleasure which accompanies a more nearly

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[1]Stratemeyer, p. 73.

[2]Stratemeyer, pp. 74-75.

complete understanding and integration of meaningful knowledge, will he be able to develop towards his maximum potential. The cognitive approach to learning will help to accomplish this end.

There is an added dividend which comes from attempting to relate the learning activities of the school to the life of the learner. If the relation is direct, then there will be many chances for the learner to practice what he has learned in his daily life. Thorndike has shown that repeated use of knowledge, in a meaningful context, will enhance the retention of learning. Thus, greater retention of what is learned will follow teaching which emphasizes the relationship of the learning to the lives of the children.

In summary of the cognitive theory of learning, the following must be emphasized:

1) Learning will most nearly meet the needs of individuals in our society if it is related to the life experiences of the learners so that there will be a maximum of retention through use.

2) The learning process must involve activities which encourage critical thinking, problem solving, questioning, and concluding so that there will be a maximum of generalization possible.

The variability of learners must be recognized and met if learning is to be appropriate to the individual. One of the basic attributes of our democratic system of education is the recognition which is given to the integrity

and value of each individual.[1] This attribute is derived from the Judeo-Christian heritage which dominates our society.[2] The practical result of this philosophy for our system of education is two-fold. Our schools are open to all persons, regardless of race, creed, ability, or socio-economic background, and each individual is encouraged and expected to develop to the maximum limit of his unique capabilities.[3]

Consequently, one of the pervading characteristics of the learner in our public schools is his great variability, and this variability tends to increase with age. He may be brilliant or retarded, physically strong or handicapped, emotionally adjusted or maladjusted, and so on, through the many aspects of human personality.

But what does this heterogeneity of learners mean to the teacher? Does it mean that all learners can proceed at the same rate toward the same learning? Does it mean that all learners can learn in the same way? Does it mean that there are "minimums" which each learner must attain before he can pass to the next grade, or be considered "educated"? Does it mean that a class of forty children can learn as well as a class of twenty? It would seem that the answer

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[1]Ephraim V. Sayers and Ward Madden, Education and the Democratic Faith (New York: Appleton-Century-Crofts, Inc., 1959), p. 429.

[2]Burton, p. 243.

[3]Sayers and Madden, p. 430.

to all of these questions will be "No," if the philosophy of individual worth and the reality of individual variance are recognized and accepted as truly basic to our democratic society.

A school program designed for the best learning must have many things to offer and be as flexible as possible in order to meet the needs of each individual. The learning experiences must be geared to the fact that each child is different from the others, but it also must be recognized that each child has different levels of ability within himself. Jersild asserts that one child may excel another in arithmetic, and the second child excel in reading, while both may have a similar I. Q.[1] What implications do these differences hold for the "lock-step" method of having all children in a given class working on the same page of the same textbook, at the same time? Certainly some will be bored, others frustrated, and learning will tend to deteriorate.

All of the preceding requirements for meaningful learning experience will be to no avail if there is a lack of desire or motivation on the part of the learner. Returning to the quoted definition of learning cited at the beginning of this section, attention is called to the words, "which fills a need." The needs of an individual are of

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[1]Arthur T. Jersild, Child Development and the Curriculum (New York: Bureau of Publications, Teachers College, Columbia University, 1946), p. 28.

extreme importance in the process of learning. Some have called these needs of the learner "central factors in learning."[1] It is felt that the kind of learning herein described as desirable cannot occur unless the learner has a desire for that learning and sees it fitting into his own purposes. Carmichael says, "After the relatively passive stage of infancy is passed, therefore, the psychology of incentives becomes increasingly important."[2]

A more complete description of the needs of learners will be found in the next section on Personality Growth, where the perceptual theory of individual behavior proposed by Combs and Snygg will be discussed.

The importance of motivation in this discussion is found in the type of motivation. There are two kinds of motivation described by Stratemeyer, who says:

> When there is a close relationship between the task to be learned--the teacher's goal--and the goal of the learner, the motivation is called intrinsic. . . . The learning is likely to be thorough, meaningful, and effective. [On the other hand, if] the task to be learned bears no close relationship to the learner's goal--in such situations the motivation is extrinsic.[3]

It is admitted that intrinsic motivation is an ideal which cannot be expected to exist at all times in a classroom. Some learners tend to be less likely to accept the learning

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[1]Ernest R. Hilgard and David H. Russell, "Motivation in School Learning," Learning and Instruction, N.S.S.E. Forty-Ninth Yearbook, p. 36.

[2]Carmichael, p. 440.

[3]Stratemeyer, p. 70.

goals of the teacher as their own. Still, it is the responsibility of the teacher to help make learning goals intrinsic for children whenever possible by consciously studying the needs of children and implementing them in the classroom. The teacher who attempts to motivate his class by manipulation will not succeed as well as the teacher who sincerely attempts to relate learning to the purposes of the children and to help children set purposes that relate to learning.

One of the most common and abused forms of extrinsic motivation is that of assigning letter grades to work of pupils. This practice will be discussed further in the chapter on Evaluation.

In summary of mental growth, it seems appropriate to quote Lee and Lee:

> The real problem before the teachers is to adjust their own ideas and educate their own emotions to the point where they can see the child in their classroom, not only as a student who must learn so much and not be a disturbance, but as a growing individual who reacts in certain ways, largely according to his past and present experience; one whose behavior may be modified, not by condemnation but change in that environment and by arousing a sincere desire to change.[1]

Personality Growth

The social and emotional needs of a child are just as real and demanding as the physical needs of a growing body. In describing the Ego and Integrative Needs Lee and Lee discuss the need for "increasing self-direction; a fair

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[1]Murray L. Lee and Doris M. Lee, The Child and His Curriculum (New York: D. Appleton-Century Co., 1940), p. 80.

balance between success and failure; and attaining selfhood or individuality."[1] These needs affect learning. They can inhibit learning if they are ignored or thwarted, because the learner then functions less effectively, or they can enhance learning when they are recognized and satisfied. The learner will seek to satisfy these needs, and if the learning process can be so structured as to help meet these needs while learning is occurring, then learning will be welcomed, valued, and lasting.

The social nature of the learner can help produce very pleasant learning activities. While it is true that solitude and reflection form a necessary part of education, it is of relatively less importance for the young learner than the mature scholar. What each normal young person needs is the chance to learn with others in a cooperative and mutually beneficial atmosphere where more than pure academic learning will result. The need to relate well with other persons is basic.[2]

A very searching and important analysis of human needs is found in Combs and Snygg, where the Perceptual Theory of Human Behavior is explored. In answering the basic question, "What do people need?," they summarize thusly:

> We can define man's need, then, as a need for adequacy. It represents in man the expression of a universal tendency of all things. It is expressed

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[1]Lee and Lee, p. 72. [2]Burton, p. 248.

> in man's behavior at every instant of his existence. Asleep or awake, each of us is engaged in an insatiable quest for personal adequacy. This quest may find its expression in a wide variety of behavior aimed, in one form or another, at the maintenance or enhancement of our perceptions of personal worth and value. Other authors have spoken of this need as a need for self-actualization, or self-realization. . . . In this book, whenever we refer to man's basic need, we mean that great driving, striving force in each of us by which we are continually seeking to make ourselves ever more adequate to cope with life.[1]

The effect of this characteristic for all persons to be essentially self-centered must be recognized in the process of learning. Any teaching which can be organized so as to help the learner see the importance of the learning to the maintenance of his self-concept of adequateness will be successful. Content, or a body of knowledge, then, can be seen in its proper relationship to the total teaching-learning process. If the learner accepts the learning as vital to the maintenance of his self-concept, then he will use all of his capabilities to learn. Combs and Snygg emphasize this tenet thusly:

> Indeed, it is in this principle that we find the greatest single problem of education. Education has been highly successful in gathering information and making information available to people, but has been far less successful in helping people to make information so much a part of themselves that they would behave differently as a result.[2]

If we accept a change in behavior as evidence of learning, then what conditions are required for a person to change his self-concept, and thus his behavior?

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[1]Combs and Snygg, p. 46.

[2]Combs and Snygg, p. 149.

Combs and Snygg list three essentials for changing a person's self-concept. First, the relation of the change to the person's self-value is pertinent. In general, the less important concepts of self will be most easily changed. Second, change occurs more easily in a non-threatening situation; and third, the more vivid the experience, the more likely change will occur. "What happens to us directly is much more vivid and clear than the words that people speak to us."[1] How often do teachers rely on their words alone to do the teaching?

Negative response will result when a person interprets the actions of another as threatening to his self-concept. How often do teachers violate this precept? Combs and Snygg make the following observations:

> Most of our educational methods are directed at the provision of perceptions for the student. He is lectured, required, shown, exhorted, and coerced to perceive what someone thinks he should.
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> . . . . . .
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> What would happen if we were consciously and carefully to set about the task of providing experiences that would lead people to perceive themselves as adequate, worthy, self-respecting people? The child who perceives himself as unwanted, unacceptable, unable, or unliked perceives and behaves in rigid, defensive fashion.[2]

In answer to those critics of education who claim that our children need to have competitive grading and other such forms of preparing for the "cruel, real world," consideration should be given to the following:

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[1]Combs and Snygg, p. 164.

[2]Combs and Snygg, p. 225.

> The possession of a large reservoir of positive experience of self provides the individual with a vast security to be used as a base for adventure and a firm foundation for meeting even the more difficult aspects of life with courage.[1]

A teaching-learning situation which provides deliberately for increasing the self-respect and value of the learner will more nearly recognize the fundamental concept herein presented and succinctly summed by Lee and Lee's conclusion, "Pupils are humans first and learners second."[2]

These ideas of Combs and Snygg seemed important to the writer because of the wealth of value this theory holds for improving the effectiveness of the teaching-learning process.

In summary, the following factors seem to be of great importance in the psychological foundations of education.

Child growth and development processes are special factors for teachers to remember when planning learning experiences. Children have innate characteristics, both physical and emotional, which should be recognized and respected, rather than inhibited for the purpose of "hearing a lesson which will do him good when he is grown."

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[1]Combs and Snygg, p. 242.

[2]Lee and Lee, p. 79.

Learning seems to involve more than fact accumulating, and implies behavior change related to thinking, questioning, exploring, and generalizing to broader situations.

Variability of ability and interest among learners and within any one learner is a prime reason for flexible teaching materials and methods.

Motivation is a key factor and can enhance learning. Motivation is high when the learner sees a strong relation between the learning task and his need for maintaining an adequate self-image.

An adequate and positive self-perception is best formed in a non-threatening situation.

The consideration of psychological aspects of learning logically leads to the discussion of teacher and learner relationships found in the following chapter.

CHAPTER III

THE RELATIONSHIP OF TEACHER AND LEARNER

The personal qualities of the good teacher can be listed, according to Barr, as "resourcefulness, intelligence, emotional stability, considerateness, buoyancy, objectivity, drive, dominance, attractiveness, refinement, cooperativeness, and reliability."[1] But all of the above characteristics can be found in a person who still might not be a successful teacher. Gilbert Highet describes the good teacher in a way which begins to emphasize the heart of the matter. He says a good teacher must know his subject matter well; understand and like his pupils; have a good memory, strong will-power, and be kind.[2]

The important difference between Barr's list and Highet's description may be noted in the latter's words, "understand and like pupils" and "be kind." Jersild interjects another important emphasis when he states, "The teacher's understanding and acceptance of himself is the most important requirement in any effort he makes to help

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[1]A. S. Barr, "Characteristics of Successful Teachers," Phi Delta Kappan, XXXIX (March, 1958), pp. 282-283.

[2]Gilbert Highet, The Art of Teaching (New York: Alfred A. Knopf, 1952), pp. 12-73.

students to know themselves and to gain healthy self-acceptance."[1]

This writer believes that no matter how a teacher is described, the one essential which cannot be eliminated is how the teacher perceives the learner. And the teacher's self-perception affects the perception he has of the learner. All of the teacher characteristics, good or bad, are brought into sharp focus only when that teacher relates with the learner; and the relationship between teacher and learner is primarily determined by the teacher's attitude about, understanding of, and interest in, the learner. This does not relegate all of the personal and academic qualities previously mentioned to the area of non-essentials. Rather it is an attempt to add the catalyst to the ingredients which helps distinguish the excellent teacher from the average teacher. The "discovery of personal meaning of ideas, values, experiences, or the accumulated culture of the race is the very essence of learning and the art of teaching is in helping people to make this discovery."[2] Combs and Snygg continue to describe good teachers by saying that

> good teaching can occur though teachers be sweet or tough, lenient or strict, reserved or outgoing. What makes an effective teacher, it seems clear, is not the possession of some particular list of traits. . . .

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[1]A. J. Jersild, When Teachers Face Themselves (New York: Bureau of Publications, Teachers College, Columbia University, 1955), p. 3.

[2]Combs and Snygg, p. 385.

> There is no kind of personality that all teachers should have. Good teaching seems, rather, to be a matter of effective use of the teacher's unique personality. There will be as many methods of teaching as there are kinds of teachers.[1]

The mental health of the teacher is closely related to this area of the teacher's perception of the learner. Baller and Charles state "that teachers must understand themselves if they are to gain sound understanding of children and a psychologically healthy relationship with them."[2] To "know thyself" and "accept thyself" are most important.

Regardless of all the characteristics of a person, he will be a good teacher only when he adjusts his perception of the learner to much more than a person who is to "be taught," or who is "an immature adult," or who is a "receptor of knowledge."

The teacher-learner relationship "focuses attention upon the very heart of the educational enterprise."[3] The writer feels that in a desirable teacher-learner relationship all the efforts to improve the curriculum, to improve teaching, to administer an educational enterprise, or to define the philosophy of American education, are brought to fruition. Lest this approach be criticized as too etheral

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[1]Combs and Snygg, pp. 398-399.

[2]Warren R. Baller and Don C. Charles, The Psychology of Human Growth and Development (New York: Holt, Rinehart and Winston, 1961), p. 399.

[3]Robert N. Bush, "Principles of Successful Teacher-Pupil Relationship," Phi Delta Kappan, XXXIX (March, 1958), p. 271.

or emotional, let it be understood, as Bush states it, that "the personal, . . . or rapport and feeling tone is one, and only one, aspect of the total" picture. The object is to describe the total climate for learning, not just how well the teacher and learner like each other. There is a growing number of studies concerning the teacher in a classroom with the learners, and the need is for more detailed and clinical study of how successful teacher-learner relationships occur.[1]

Bush cites two factors which seem to be paramount in determining a successful teacher-learner relationship. First is the matter of divergence between the goals of the teacher and the learner. Second is the knowledge of the learner by the teacher. He makes the observation that platitudes about the "good teacher" tend to ignore the facts of the variable traits of each teacher and the infinitely more variable personalities of the learners. He further states that the

> feelings of pupils toward teachers and learning situations appear to have far-reaching consequences. Since it seems that the most pervasive, longlasting lessons are learned under emotionally charged conditions, and since large numbers of the relations between teachers and pupils are relatively lifeless, until at times the classroom appears almost to become an "affectional desert," the direction for reform suggests itself.[2]

Bush concludes that "since emotion is so prominent in all learning it would appear that the arousal and direction of students' feelings, both in relationship to the teacher and

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[1]Bush, Phi Delta Kappan, XXXIX, p. 271.

[2]Bush, Phi Delta Kappan, XXXIX, pp. 272-273.

to that which is being learned, should receive greater attention by the teacher."[1] One must add that students' feelings toward life and society must also be considered and developed in a positive manner.

Another important factor in teacher-learner relations is the so-called "mental hygiene" point of view. Baller and Charles cite several studies which compared the relative ranking of children's classroom behavior by both classroom teachers and mental hygienists. The first of the studies was conducted in 1926 and the latest in 1957. It was interesting to note that although there has been considerable convergence between the opinions of teachers and mental hygienists about what is "serious misbehavior" over the period of thirty-one years, there still is considerable divergence in their opinions. The teachers remain more concerned with conformity to classroom orderliness and routine than with expressions of withdrawal and unhappiness. An encouraging trend, however, is the teacher's increasing awareness of the relation between good mental health and such behavior as resentfulness, cruelty, sensitiveness, sullenness, and shyness.[2] The direction of this trend can be seen in Tyron's statement that the function of our schools is not only to foster thinking, but

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[1]Bush, Phi Delta Kappan, XXXIX, pp. 272-273.

[2]Baller and Charles, pp. 409-414.

in addition, to create the atmosphere which will encourage a learner to know how to act and feel.[1]

This leads one to consider the question of discipline as part of the teacher-learner relationship. In a 1949 study by Stendler cited by Baller and Charles, the methods most favored by elementary teachers for coping with discipline problems were "talking to" the child and "adjusting the work" of the child. Next most popular methods were studying the "cause of behavior" and "taking punitive measures." Mental hygienists, on the other hand, tend to prefer studying the cause of behavior over all other methods.[2]

The implication is that a tension-free atmosphere, coupled with serious teacher efforts bent toward helping the learner understand the reasons for his behavior, will lead toward the goal of positive self-control, which is the basis of all good discipline.

What other factors besides discipline, mental hygiene, emotions, and goals are important in the teacher-learner relationship? Certainly motivation cannot be ignored. Motivation as used here means need-satisfying and goal-seeking behavior which would include physiological drives, unconscious needs, ideals, clearly formed purposes, and interests.[3]

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[1]Baller and Charles, pp. 415-416.

[2]Baller and Charles, pp. 416-418.

[3]Ernest R. Hilgard and David H. Russell, "Motivation in School Learning," Learning and Instruction, Forty-Ninth Yearbook of the National Society for the Study of Education, Part I (Chicago: The University of Chicago Press, 1950),p.38.

The teacher-learner relationship will deteriorate or grow healthily, depending on the extent to which the teacher can understand and guide the motives or needs of the learner:

> The genius of good teaching lies in the ability to challenge students without threatening them. To do this effectively means that teachers must be sensitive to the impact upon their charges of what they do and say, for the distinction between threat and challenge lies not in what the teacher thinks he is doing, but in what the students perceive him to be doing.[1]

An example may help clarify this statement. If the teacher recognizes and satisfies the learner's need for self-respect, then learning will be positively affected. If, on the other hand, the teacher debases a learner, heaping criticism and sarcasm upon failure, then learning will decrease considerably, due to the learner failing in this situation to find the satisfaction which his need for self-respect demands.

Another strong motive for learning is the learner's interest. If his interest is aroused, either by himself or through external factors in the learning situation, then his learning will be strengthened. For instance, the person who is strongly interested in such a thing as fishing (or mathematics) will spend much extra effort, time, and even money on learning more and more about the subject of his interest. This is in sharp contrast to the effort and time spent on the same topics by one who has little or no interest in them. What, then, is the task of the teacher? As a minimum,

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[1]Combs and Snygg, pp. 389-390.

it will be to learn of each child's interests and likes, so that they may be used advantageously in as many areas of learning as possible. Even better, it challenges the teacher to create learning situations which help the learners to have an aroused interest. Children can learn to develop interest, as well as other things, so a lively, enthusiastic teacher can help them develop new interests. Hilgard and Russell summarize the position of motivation in the teacher-learner relationship thusly:

> The proper motivation of learning is one of the basic essentials of any set of educational experiences. Learning seems to be more complete and more efficient when it is energized and directed by strong motivational factors. Accordingly, a large part of the teacher's task is to understand the motives of children and to use them in stimulating desirable learning.[1]

Underlying all of the previous description of the various aspects of the teacher-learner relationship is the central theme so often expressed by Dr. Ernest O. Melby in his teaching at Michigan State University. He urged that the basic human relations inherent in the teacher-learner relationship should emphasize the personal value and worth of each individual, both learner and teacher, and that each must attach great importance to the other when working together in a learning situation.

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[1]Hilgard and Russell, N.S.S.E. Forty-Ninth Yearbook, p. 66.

CHAPTER IV

THE ORGANIZATION FOR INSTRUCTION

The pamphlets, What Research Says to the Teacher, are an objective, readable, and authoritative source which educators can consult.[1]

Wrightstone gives an excellent summary of research on the problems of organizing a class for the most effective learning.[2] Burton, however, emphasizes that

> the personality and ability of the teacher is a factor which conditions any and all statements which may be made concerning the organization of instructional and classroom procedures. An able teacher of lively personality, possessed of creative insight into the learning process will vitalize the most formal organizational structure for learning. A dull, unenthusiastic personality will cut the life out of methods which would ordinarily make for vivid, dynamic classroom situations.[3]

Burton tends to support the general findings of Wrightstone that "an instructional scheme which gives careful attention to the total experience of the learner seems on the evidence so far developed, to be superior to one which is primarily

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[1] What Research Says to the Teacher (Washington 6, D.C.: National Education Association, 1201 Sixteenth St., N.W.), 1954 to 1960.

[2] J. Wayne Wrightstone, "Class Organization for Instruction," What Research Says to the Teacher, pp. 1-33.

[3] William H. Burton, "Implications for Organization of Instruction and Instructional Adjuncts," N.S.S.E. Forty-Ninth Yearbook, p. 225.

concerned with the mastery of subject matter."[1]

One principle which seems clear is that the main purpose of any organizational scheme must be that of meeting the needs of different individuals in a class.

Nonpromotion has been suggested as a means to meet the needs of some individuals. Wrightstone shows it has been well substantiated that nonpromotion is not an effective means of meeting the needs of slow learners. The desired homogeneity of abilities is just as absent from classes in schools where nonpromotion has been practiced as in schools where all children are promoted each year. In fact, concomitant results add to the problem by emphasizing a child's "failure" and creating emotional disturbances which compound the child's learning problems.[2]

Other attempts to increase homogeneity of a class are such things as grouping by ability, departmentalization, and differentiated curriculums. These plans lend little to increasing homogeneity, but do aid administratively in handling schedules of children.

The approaches which tend to emphasize individual needs best are grouping within a class by interest, personal choice, or ability; ungraded primary plans; core curriculum; and individualized assignments. Since no one plan can meet all the diverse needs inherent in an effective learning situation, Wrightstone gives three criteria for any

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[1]Wrightstone, p. 31. [2]Wrightstone, pp. 4-5.

organizational plan for instruction. He requires flexibility, based on individual needs; independence, developed by the learner; and control, both by the individual and the group.[1]

Stratemeyer points up the futility of attempts to group learners so they will all be able to study and learn at the same rate, in the same material, at the same time:

> While research data regarding individual differences exist, there is little conclusive evidence to elevate one way of grouping learners above any other. . . . It is possible to reduce the range of abilities and group learners for specific teaching purposes, but such groupings should be recognized for what they are --a reduction in range of differences in some particular abilities. No matter what criteria are used for grouping the class will still include individuals with a wide variety of interests and aptitudes, abilities and motivations. In this sense, there is no really homogeneous group but merely a group which has been selected on the basis of certain similarities.[2]

Individual and small-group experiences must occupy more of the classroom time, then, if grouping is to meet the needs of individuals.

Grouping which breaks the lock-step of chronological age would seem to be desirable, since so much variance exists among a group of eleven-year-olds, for example. Perhaps more promise of effective organization in secondary schools will be found in those practices which consider the maturity, interest, special aptitudes, and achievement of the learners. The ability to progress (or regress) from one level of a subject to another before a school year ends

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[1]Wrightstone, p. 25. [2]Stratemeyer, p. 433.

also is important. Music classes have been organized along these lines for quite some time, and the freedom of talented individuals to grow continuously is evident in many high school bands or orchestras. At the same time, those with limited or average ability, but high interest, still could fit into the structure characteristic of such music programs.

In the elementary school, the non-graded plan, with freedom to advance at the rate appropriate to the ability and effort of each individual, seems to be a most promising way of organizing for instruction.

Another important aspect of flexible grouping, sometimes overlooked by educational planners, is the fact that increased flexibility requires more pupil-teacher planning to be most effective. Stratemeyer emphasizes that "pupil-teacher planning is essential for effective use of the varied means of meeting individual needs."[1]

In conclusion, effective organization for learning must recognize the following key ideas.

Any grouping should remain flexible and adaptable to the changing needs of individuals, for variance exists within an individual as well as among individuals for the abilities, aptitudes and interests related to learning. Since these abilities and interests change, the typical lock-step of annual grouping becomes cumbersome and unrealistic.

Nonpromotion seems to hold little promise as a

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[1]Stratemeyer, pp. 445-446.

generalized practice to meet the needs of individuals. A teacher with the ability to help each child progress from where he presently functions in each area of knowledge will better meet the needs of slow learners.

Finally, any form of grouping should hold as its ultimate purpose the facilitating of pupil-teacher relationships, which generally occur more easily in some sort of small group experiences.

CHAPTER V

THE MATERIALS OF LEARNING

Materials of learning are defined here as all the objects and things which can be used as tools to implement the learning process. Such things as the textbook, workbook, films and projectors, models, tape recorders, record players, science apparatus, arts and crafts supplies, maps, flannel boards, magazines, newspapers, teaching machines and many other similar items are the "materials of learning." For simplification, this study divides these materials into two general categories, the textbook-workbook group, and all the other materials mentioned above.

Murray Thomas concludes that research on use of learning materials has supported the generalization that the use of a wider variety of materials will lead to greater learning and will by their very nature increase student participation, thus enhancing learning.[1]

In this study, the use of textbooks will be considered separately from the other materials of learning, since they are so preponderantly used by teachers in comparison to the other materials. Alcorn and Linley quote

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[1]Murray R. Thomas, "Research Dealing with the Materials of Learning," Phi Delta Kappan, XXXIX (March,1958), p. 265.

an article from Better Schools, supporting the emphasis on textbooks. "The textbook has been called the child's 'other teacher.'"[1] Textbooks are one of the most pervading and potent influences on the teaching-learning process:

> The textbook was the resource listed by both elementary and secondary principals as the one recently most useful for a teaching program (1960-61). What the publishers printed for school use was indicated as a strong determinant of what the students had studied.[2]

According to the above N.E.A. survey, "Textbooks are considered to continue as the most useful resource through the 1961-1966 period."[3]

This has been true for some time, as McNally and Passow show in their brief, historical sketch of early curriculum improvement efforts:

> The conception of the curriculum as a collection of subjects guided the approaches used to improve programs generally. There were a few individual reformers who saw the educational program whole, but the textbook writers preparing publications in a single subject area had the last word. It was the textbook writers who, by their selection and arrangement of content, both influenced and created the curriculum of the schools from the time of graded classes in the 1840's. Where the lawmakers fixed the subjects to be taught, the textbook

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[1]Marvin D. Alcorn and James M. Linley (eds.), Issues in Curriculum Development (New York: World Book Co., Yonkers-on-Hudson, 1959), p. 194.

[2]The Principals Look at the Schools, A Working Paper Prepared for the Project on the Instructional Program of the Public Schools (Washington 6, D.C.: National Education Association, 1201 Sixteenth St. N.W., 1962), p. 23.

[3]The Principals Look at the Schools, N.E.A., p. 42.

> writers prescribed the lessons in these subjects. . . . One obvious means of curriculum improvement was the production of better textbooks.[1]

If the previous descriptions in this study of the many sides of learning are accepted as valid, then the current emphasis in public schools on the textbook as the center of the curriculum represents a rather limited approach to learning.

The preceding chapters have emphasized that learning is change in behavior; that the learner with his social and psychological characteristics must be considered; that the teacher-learner relationship is of vital importance; that integrative understanding is the main legitimate goal of education, emphasizing learning how to learn; that the teacher must be a constantly growing learner; that the needs of our democratic society demand more than merely the learning of facts; and that learning is a continuous, lifetime process.

Where, then, does the textbook fit into this description of learning? Highet says, "Many textbooks . . . do not tell the reader clearly what he is going to learn. They do not, while he is learning it, show him the relation of each part to the whole. And they usually finish not with a reasonable conclusion and a glance backwards, but abruptly

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[1]Harold J. McNally and A. Harry Passow, Improving the Quality of Public School Programs (New York: Bureau of Publications, Teachers College, Columbia University, 1960), pp. 29-30.

and even rudely."[1] Nila B. Smith reiterates, "More challenging materials are needed. Children of today are sophisticated; much of the material they are supposed to read in school is below their level of intelligence and understanding."[2]

So clearly, one of the educators' important tasks is to press for the ever-improving writing of textbooks. This writer has observed few textbooks written with the cooperation of the subject matter specialist and the child development specialist. This might be one way to combine the logical, sequential presentation of content in a learner-centered format which emphasizes the learning skills and process equally with content. Educators should consider this as an important criterion when selecting textbooks.

The description of curriculum improvement by Lloyd B. Jones emphasizes:

> Since classroom textbooks to some extent determine, as well as limit, the teaching and learning in the class, they are selected with great care in the Denver Public Schools. . . . The scrutiny of textbooks is a continuous process. . . . In some cities, textbook selection is considered a part of curriculum making. In the Denver Public Schools, however, there is a strong tradition of first determining what the curriculum shall be and then seeking the instructional materials which are best adapted to the curriculum. When no commercially published materials are available "home-grown" publications have been prepared.[3]

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[1]Highet, p. 80.

[2]Nila B. Smith, "Reading for Today's Children," The National Elementary Principal, Thirty-fourth Yearbook of the Department of Elementary School Principals (Washington 6, D.C.: The National Education Association, 1955), p. 8.

[3]McNally and Passow, pp. 203-204.

Not only should texts be chosen with care, but several series should be available, at several grade levels, so the teacher may choose from a variety of approaches, as the needs of the class dictate. This idea is supported by J. Bernard Everett and Wilson C. Colvin of the Newton, Massachusetts, public schools, who say that in their system "multiple, rather than single, adoptions is the accepted practice in all subject fields at the elementary level and in most subjects at the secondary level."[1]

Even if good textbooks are written, and then chosen, with variety enough available to serve as real resources, there still remains the job of their skillful and careful use. The role of the teacher should remain dominant, utilizing the principles of learning and human development as the base upon which to build learning from the texts. Alcorn and Linley decry the dominance of the textbook when they say, "Certain traditional practices have resisted the developmental point of view described. . . . None is more resistant than the subservience of teacher and pupil to the dullness and dogma of textbooks. The result is poor communication and inadequate learning."[2] The teacher, then, has both the right and responsibility of making the textbooks serve, in proper perspective along with all the other

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[1]McNally and Passow, p. 231.

[2]Alcorn and Linley, p. 402.

instructional materials, to achieve the richest of teaching-learning experience.

No one type of material can be shown to be best for most learning situations, but instead the ideal seems to be found in some system which puts as many different kinds of materials as is possible at the command of the teacher. These materials should be used by the effective teacher, then, especially in conjunction with the skilled advice of an experienced consultant, in a creative and balanced manner so as to achieve harmony and integrity in the teaching-learning process.[1] Unfortunately, this harmony of various materials can be upset by the dominance of the textbook as a material of learning.

In conclusion, then, it would seem that it is the teacher who must, in the final analysis, strike a balance in the use of the materials of learning.

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[1]Alcorn and Linley, p. 201.

CHAPTER VI

THE EVALUATION OF LEARNING

The process of evaluation helps give meaning, direction, and understanding to knowledge. If the teacher thinks of evaluation in the typical, narrow sense of "testing," then he has a very limited understanding of the place evaluation has in the teaching-learning process. If he thinks of evaluation as a continuous, integral part of learning, then the importance of evaluation becomes evident.

What is good evaluation? Is it testing alone? There are at least seven factors in evaluation.

(1) Clarify and define the objectives.

(2) Relate these objectives to the types of pupil behavior which give evidence of learning the objectives.

(3) Use appropriate instruments and techniques.

(4) Record the results of evaluating.

(5) In addition to collecting data, make judgments concerning the learning by the pupil. Recorded data are not enough.

(6) Consider each pupil as an individual human, recognizing his characteristics and personality.

(7) Evaluation should lead the teacher and learner to diagnosis and remedial steps, if necessary.[1]

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[1]Burton, N.S.S.E. Forty-Ninth Yearbook, pp. 249-250.

Swenson emphasizes the same ideas in the following quote:

> Learning can be properly appraised only in terms of learning goals, those held by the learner and those held by the teacher. . . . Next, evaluation of learning can proceed properly only in terms of the learners' aims and their individual and group characteristics. This requirement can be met only to the extent that the teacher knows the pupils and they know themselves. . . . Finally, evaluation should proceed in terms of what is known about developmental sequence of learning tasks. That is one of the reasons that evaluation must be continuous. The children and the teacher must know where they were yesterday in order to plan well what to do today and must observe where they are today in order to proceed to best next steps for tomorrow.[1]

What Swenson says about the primary-grade teacher developing desirable levels of aspiration is equally applicable to teachers at all levels. This is part of the challenge of learning: aspirational levels rise as new learning occurs.

Rothney emphasizes the fluid status of the process of evaluation of learning and encourages the professional teacher to accept the challenge which arises from the potential value of good evaluation. He sees new tools and techniques as well as better validated older methods of evaluation becoming an increasingly important part of teaching and learning.[2]

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[1]Esther J. Swenson, "Applications of Learning Principles to the Improvement of Teaching in the Early Elementary Grades," Learning and Instruction, Forty-Ninth Yearbook of the National Society for the Study of Education, Part I (Chicago: The University of Chicago Press, 1950), pp. 277-278.

[2]John W. M. Rothney, "Evaluating and Reporting Pupil Progress," What Research Says to the Teacher (Washington 6, D.C.: National Education Association, 1201 Sixteenth St., N.W., 1960), p. 31.

It would seem that these authors and others like them are emphasizing the idea that learning and evaluation are part of each other. The best learning will occur only when the learner knows, accepts and desires certain goals, and then assesses his progress toward these goals periodically. Very basic questions each teacher and learner should answer are "What and why do we want to learn?," and "What is important for us to learn?"

One of the most limiting answers to these questions is to hold letter grades as the prime purpose for evaluation. Use of letter grades alone as an expression of amount of learning completely warps the whole framework of meaningful learning. It not only compartmentalizes learning into minute, sterile cubicles of facts, but also ignores and degrades the concept of the uniqueness and worth of each human. There should not be evaluation for the sake of evaluation, but evaluation as a process in learning. Stratemeyer describes the changing role of report cards with letter grades in the total evaluation process:

> Increasingly, as the purpose of evaluation becomes that of promoting growth rather than passing judgment, earlier forms of report cards are becoming inadequate. New ways of sharing wider and more varied information with pupils and parents are necessary. The problem of developing adequate methods of reporting is one that must be faced regardless of curriculum design.[1]

A more nearly adequate system of evaluation and reporting pupil progress will involve all of the following

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[1]Stratemeyer, p. 499.

activities. The learner is actively involved at all stages, from setting goals to reporting to parents. The best evaluation becomes self-evaluation with the guidance of others. True maturity comes only when a learner can realistically appraise his own actions.

Parents and other non-school persons can contribute much to the process if given the opportunity. Parents and educators should form the two sides of the "evaluation coin." When the public can be involved in the process, both actively and receptively, they will respond by providing knowledge and support for the system involved as well as becoming more understanding of the processes of education.

When evaluation emphasizes change in behavior as well as change in letter grades, then it becomes a part of the learning process rather than a judgment injected from outside the area of learning. An interesting example of the difference is found in the problem of teaching spelling. If the letter grade, or "100% on today's spelling list," dominates the goals of a learner, then there will likely be little transfer to daily writing experiences. So often teachers (and parents) complain about the child who gets all the words correct on the weekly test, but who persists in misspelled words in daily writing. It appears that both teacher and learner have made the spelling test score the main objective, rather than a change of behavior in daily writing. The learner does not see the relation between the spelling test and daily writing. Better writing performance

could be achieved if spelling test scores were reduced in importance by the learner while writing skills became more important and meaningful for the learner.

Goals and standards of behavior must change with the maturity and capacity of the learner. This means that within each class there will be different goals and objectives for each different learner. Comparison with a national standardized norm must not be the only means used to describe behavior, if evaluation is to become part of each individual rather than an outside standard imposed upon him. Some claim that this eliminates the ability to compete and meet the rigorous world of adult life, but Stratemeyer asserts:

> Proposals that growth be evaluated in terms of each individual's ability, maturity, and balanced development should not mean that any degree of proficiency which satisfies a learner himself will be acceptable. . . . When evaluation is an integral part of the teaching-learning process, pupils are continually encouraged to take realistic looks at both their strengths and their weaknesses and to participate in planning next steps. Learners are not protected from failure, and they must face the reality of not being chosen for a job because of inadequate skills. . . . Perhaps more basic, however, is the psychological assumption that any individual engaged in an activity which he sees as purposeful, worthwhile, and important will not do a haphazard job of it. . . . Further, there is an underlying assumption that those individuals most likely to make effective contributions as adults are those who have faced up to realistic appraisals of their own strengths and weaknesses as children and youth. The problems of today's world demand adults who will "hitch their wagons to stars"--but in terms of goals that have some basis in reality.[1]

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[1]Stratemeyer, pp. 483-484.

Tests and examinations form but one part of evaluation when it is a process rather than an end. Other means of observing and recording behavior and growth should be used. Regular notes on daily activities both outside and inside the classroom; chronological samples of the learner's class work; and reports on frequent formal and informal pupil-teacher conferences should be part of the teacher's records. These form a broader basis upon which the learner, teacher and parents can evaluate progress.

When the time comes to communicate the evaluation of learning to the parents, the learner already should be well aware of his performance, and one of the most effective means of reporting and sharing this knowledge is in conferences with parents, pupil, and teacher participating. According to Stratemeyer:

> For pupil and parent the conference should contribute further to understanding the goals of the school, the ways in which the learner and his teachers have been working toward these goals, and the obstacles met. In the give-and-take of a conference it is often easier to help parents, or parents and pupil together, think through realistic expectancies. Standardized test records can be interpreted and samples of work examined at such conferences. The conference can also include planning next steps for each participant, all directed toward further growth of the learner. For the teacher there may be new insights regarding the parent and the home situation, parent relations with the learner, ways in which the home does and can contribute to pupil progress, and ways in which home and school can work together.[1]

Between conferences, short notes written by the teacher or pupil (or both) can form an effective means of

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[1]Stratemeyer, pp. 500-501.

helping parents understand the continuity and persistance of evaluation activities occurring daily in the school.

Thus, greater growth by the learner and greater understanding of that growth by the parents comes through the methods of evaluating and reporting described above. Systems that rely strictly on letter grades alone do not accomplish these ends. When thus used, evaluation assumes its proper role as part of the learning process, rather than an entity alone, and helps make learning more complete and meaningful.

Summary

In establishing this base from which to view the educational practices listed in this study's questionnaire, the teaching-learning process has been discussed in the light of the social foundations of education; the psychological foundations of learning; the relationship of teacher and learner; the organization of classes; the materials of learning; and finally, the function of evaluation in the process.

Through all of these topics has run the theme that true learning involves much more than accumulating facts, that the learner is more important than the learning, and that "beyond the basic tools, learning how to learn may prove to be a greater asset for continued education than is the content through which these intellectual habits are learned."[1]

Upon this base, then, better educational practices can be founded, leading to an ever-increasing improvement of the teaching and learning process in the schools of the United States.

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[1]Guy T. Buswell, "Helping Children Learn How to Learn," Learning and the Teacher, 1959 Yearbook of the Association for Supervision and Curriculum Development (Washington 6, D.C.: National Education Association, 1201 Sixteenth St., N.W., 1959), p. 155.

PART II

ANALYSIS OF QUESTIONNAIRE RESPONSES

CHAPTER VII

THE SOCIAL FOUNDATIONS OF EDUCATION

In this study classroom teachers were asked to respond to certain descriptions of instructional practice in terms of the frequency of the practice as it occurred in their teaching. In addition, they were asked to indicate their opinion as to how much each practice should occur in their classrooms. See Appendix for the complete questionnaire.

In order to clarify and analyze the responses, the following method of weighting was used (Table 1).

TABLE 1.--Weighting of responses

Type of Questionnaire Response	Response Weight
R-Rarely - never or hardly ever	0
S-Sometimes - occasionally, but not often	1
F-Frequently - about half of the time	2.0 (Mean)
G-Generally - usually or much of the time	3
A-Almost Always - nearly 100% of the time	4

If the teacher's response was "rarely - never or hardly ever" the weight of 0 was assigned. Weights of 1, 2, 3, and 4 were assigned to the responses "sometimes," "frequently," "generally," and "almost always," respectively.

Thus a weighted response of 0 would indicate that the practice listed was never or hardly ever done. If the

weighted response was 2.0, then the practice could be assumed to have occurred about half of the time, while a weighted response of 4 would mean that the practice occurred nearly 100 per cent of the time.

A further generalization might be that for responses from 0 to 2.0 the practice was occurring less than half of the time, or relatively seldom, and conversely, if the responses were from 2.1 to 4, the practice was occurring more than half of the time, or relatively often. This is due to the fact that the mean of the response weights is 2.0 on the scale from 0 to 4.

Therefore, by referring to the column headed "Means of Responses" in Tables 2-25, the reader can see the relative frequency of the selected practices for the several classifications of teachers described.

Table 2 shows the weighted means of the total population responses for questions which relate to the Social Foundations of Education described in Chapter I.

In statements 1, 2, and 3, the teachers report that more than half of the time to much of the time (2.5 to 2.8) their students "learn to work together; develop initiative, responsibility, and independence; and participate in democratic action."

The items listed in statements 4-10 are the goals of the teachers generally, or much of the time. However, these goals are hardly ever established by "a lay committee and faculty; the school board; or the community."

TABLE 2.--Weighted means of total population responses

Selected Questionnaire Items	Means of Responses	
	Actual Practice	Desirable Practice
In my teaching:		
1. students learn to work together.	2.8	3.2
2. students develop initiative, responsibility, and independence.	2.7	3.4
3. pupils participate in democratic action.	2.5	2.9
A goal of my teaching is to develop:		
4. appreciation for democratic heritage.	2.9	2.2
5. civic rights and responsibilities.	3.0	2.4
6. respect and appreciation for human values.	3.3	2.6
7. social competency.	2.9	2.4
8. ethical behavior.	3.2	2.6
9. aesthetic appreciation.	2.8	2.4
10. awareness of our relationship with the world community.	3.0	2.5
In my teaching, goals for education are established by:		
11. a lay committee and faculty.	.5	.9
12. the school board.	.9	.9
13. the community.	.9	1.1

The above statements of the teachers represented their practices as they actually were, while referral to the column entitled "Desirable Practice" will show what the teachers thought about these practices.

For questions 1, 2, and 3, apparently the teachers felt that the items listed should occur even more often (2.9-3.4) than they actually occurred.

But goals for teaching, items 4-10, were rated as less desirable, or requiring less emphasis in the teaching, although the teachers still desired that they occur more than half of the time.

The same tendency, but much lower frequency, is desired by the teachers for the sources of goals listed in items 11-13. The teachers felt that these representatives of the community should have more, but still relatively little (.9-1.1) influence on goals for education.

In comparing the responses of all the elementary teachers with those of all the secondary teachers listed in Table 3, the elementary teachers practiced each of the 13 items more often than the secondary teachers.

Also as shown in the "Desirable" column, a greater frequency of these practices was desired by elementary teachers, when compared to what the secondary teachers seemed to consider desirable.

In items 1, 2, and 3, both secondary and elementary teachers would desire that these items occur more often than they do in actuality. In item 3 there is a large difference

between the frequency of the actual practice of "students participate in democratic action" and the desired frequency.

Just the opposite is true of items 4-10, however. Both elementary and secondary teachers seem to desire less

TABLE 3.--Weighted means of total elementary and secondary responses

Selected Questionnaire Items	Means of Responses			
	Actual Practice		Desirable Practice	
	Elementary	Secondary	Elementary	Secondary
In my teaching:				
1. students learn to work together.	3.1	2.5	3.2	2.7
2. students develop initiative, responsibility, and independence.	2.9	2.5	3.1	2.7
3. students participate in democratic action.	2.7	2.3	3.7	3.3
A goal of my teaching is to develop:				
4. appreciation for our democratic heritage.	3.1	2.6	2.4	1.9
5. civic rights and responsibilities.	3.1	2.8	2.6	2.1
6. respect and appreciation for human values.	3.5	3.2	2.8	2.3
7. social competency.	3.1	2.6	2.6	2.0

TABLE 3.--Continued

Selected Questionnaire Items	Means of Responses			
	Actual Practice		Desirable Practice	
	Elementary	Secondary	Elementary	Secondary
8. ethical behavior.	3.3	3.1	2.7	2.5
9. aesthetic appreciation.	3.0	2.5	2.4	2.0
10. awareness of our relationship with world.	3.1	2.7	2.4	2.2
In my teaching, goals for education are established by:				
11. a lay committee and faculty.	.5	.4	1.0	.8
12. the school board.	.9	.8	1.1	.6
13. the community.	.9	.8	1.1	1.1

emphasis on such goals as "civic rights and responsibilities," "ethical behavior," or "awareness of our relationship with the world."

In items 11, 12, and 13, the elementary teachers would desire more goals established by "a lay committee and faculty," "the school board," and "the community," whereas the secondary teachers would desire more goals set by "a lay committee and faculty" and "the community" but less goals set by "the school board." In all cases the frequency of

goals set by these agencies is relatively low and the teachers seem to want this to continue.

Table 4 shows the responses of all the teachers in each of three groups according to number of years of college completed.

TABLE 4.--Weighted means of responses by years of college education

Selected Questionnaire Items	Years of College	Means of Responses	
		Actual Practice	Desirable Practice
In my teaching:			
1. students learn to work together.	0-3.9	3.1	3.4
	4-4.9	2.9	3.2
	5-up	2.7	3.1
2. students develop initiative, responsibility, and independence.	0-3.9	2.9	3.6
	4-4.9	2.8	3.4
	5-up	2.7	3.3
3. students participate in democratic action.	0-3.9	2.9	3.3
	4-4.9	2.5	2.9
	5-up	2.5	2.9
A goal of my teaching is to develop:			
4. appreciation for our democratic heritage.	0-3.9	3.4	2.4
	4-4.9	2.9	2.2
	5-up	2.8	2.2
5. civic rights and responsibilities.	0-3.9	3.4	2.4
	4-4.9	3.0	2.3
	5-up	2.9	2.4
6. respect and appreciation for human values.	0-3.9	3.6	2.6
	4-4.9	3.4	2.6
	5-up	3.3	2.6

TABLE 4.--Continued

Selected Questionnaire Items	Years of College	Means of Responses	
		Actual Practice	Desirable Practice
7. social competency.	0-3.9	3.4	2.7
	4-4.9	3.0	2.5
	5-up	2.7	2.3
8. ethical behavior.	0-3.9	3.5	2.7
	4-4.9	3.2	2.5
	5-up	3.2	2.5
A goal of my teaching is to develop:			
9. aesthetic appreciation.	0-3.9	3.2	2.8
	4-4.9	2.8	2.5
	5-up	2.7	2.3
10. awareness of our relationship with the world community.	0-3.9	3.3	2.9
	4-4.9	2.9	2.5
	5-up	2.9	2.5
In my teaching, goals for education are established by:			
11. a lay committee and faculty.	0-3.9	.3	.9
	4-4.9	.5	1.0
	5-up	.5	.9
12. the school board.	0-3.9	.7	.8
	4-4.9	.8	.8
	5-up	.9	1.0
13. the community.	0-3.9	.7	1.1
	4-4.9	.8	1.1
	5-up	.9	1.2

The first group had under 3.9 years of college education, while the second group had from 4 to 4.9 years of

college, and finally, the third group had over 5 years of formal education.

The same relationship as found for all the teachers (Table 2) between the "Actual" and "Desirable" columns persists in Table 4.

An important generalization to be drawn from these data is that as teachers gain more education, the items listed receive less emphasis. For example in item 1, "students learn to work together," the teachers claim this is happening in their teaching less frequently as they increase the amount of their college education. The same tendency is evident in the "Desirable" column.

Only in items 11, 12, and 13 is this reversed. Here the teachers report more influence on their goals from outside agencies as they increased the length of their college education. The same general direction was considered desirable.

Responses to items in Table 5 are categorized according to the length of teaching experience of the teachers.

The first category includes teachers in their first year of teaching; the second those who have taught more than one but less than four years; group three contains teachers with five to fourteen years of experience; and the last group has over fifteen years of teaching completed.

Examination of items 1-10 will show a marked tendency, in both the "Actual" and "Desirable" columns, for the teachers

TABLE 5.--Weighted means of responses by years of teaching experience

Selected Questionnaire Items	Years of Experience	Means of Responses	
		Actual Practice	Desirable Practice
In my teaching:			
1. students learn to work together.	0-1	2.5	3.1
	1-4	2.6	3.2
	5-14	2.8	3.2
	15-up	3.0	3.3
2. students develop initiative, responsibility, and independence.	0-1	2.2	3.2
	1-4	2.5	3.4
	5-14	2.7	3.4
	15-up	2.9	3.4
3. students participate in democratic action.	0-1	2.1	2.5
	1-4	2.4	2.9
	5-14	2.5	2.9
	15-up	2.7	3.0
A goal of my teaching is to develop:			
4. appreciation for our democratic heritage.	0-1	2.2	1.5
	1-4	2.6	1.7
	5-14	2.9	2.3
	15-up	3.2	2.5
5. civic rights and responsibilities.	0-1	2.4	1.7
	1-4	2.6	1.9
	5-14	3.0	2.4
	15-up	3.2	2.7
6. respect and appreciation for human values.	0-1	3.0	1.9
	1-4	3.2	2.2
	5-14	3.3	2.6
	15-up	3.5	2.9

TABLE 5.--Continued

Selected Questionnaire Items	Years of Experience	Means of Responses	
		Actual Practice	Desirable Practice
A goal of my teaching is to develop:			
7. social competency.	0-1	2.5	1.5
	1-4	2.9	2.2
	5-14	2.9	2.4
	15-up	3.0	2.6
8. ethical behavior.	0-1	2.9	1.7
	1-4	3.1	2.3
	5-14	3.2	2.5
	15-up	3.3	2.8
9. aesthetic appreciation.	0-1	2.6	1.7
	1-4	2.6	2.1
	5-14	2.7	2.5
	15-up	3.0	2.7
10. awareness of our relationship with the world community.	0-1	2.3	1.7
	1-4	2.8	2.1
	5-14	3.0	2.6
	15-up	3.1	2.9
In my teaching, goals for education are established by:			
11. a lay committee and faculty.	0-1	.3	.6
	1-4	.4	1.0
	5-14	.4	1.0
	15-up	.5	.9
12. the school board.	0-1	.5	.6
	1-4	.9	.9
	5-14	.9	.9
	15-up	.8	.9
13. the community.	0-1	1.0	1.3
	1-4	.9	1.2
	5-14	.9	1.1
	15-up	.8	1.1

with more years of experience to increase the emphasis on the items listed, while those with fewer years of experience practice the items less often.

The relationship between the "Actual" and "Desirable" items remain the same as in previous tables.

Item 13 is the sole exception to the above observations. Here the teachers seem to feel, as they gain more years of experience, that "the community" sets the goals for education less, and they rate this as desirable, as well.

CHAPTER VIII

THE PSYCHOLOGICAL FOUNDATIONS OF EDUCATION

The items listed in Table 6 were chosen as having relevance to the psychological aspects of the teaching-learning process. The responses listed are for all the teachers who responded to the questionnaire.

TABLE 6.--Weighted means of total population responses

Selected Questionnaire Items	Means of Responses	
	Actual Practice	Desirable Practice
In my teaching, I:		
1. use a consultant in special areas.	1.1	1.9
2. am involved in a research program on instruction.	.9	1.6
In my teaching:		
3. individual differences are provided for.	2.6	3.4
4. there is a body of knowledge to be taught.	3.1	3.3

TABLE 6.--Continued

Selected Questionnaire Items	Means of Responses	
	Actual Practice	Desirable Practice
A goal of my teaching is to develop:		
5. fundamental skills of communication.	3.1	2.5
6. fundamental skills of mathematics.	2.6	2.3
7. ability to think and evaluate.	3.4	2.7
8. work habits and self discipline.	3.5	2.9
9. intellectual curiosity.	3.3	2.8
10. physical health.	2.5	2.4
11. mental health.	3.0	2.6

In items 1-4, the teachers felt these practices should occur even more often than they do; however, in items 5-11, they felt it would be desirable to have less time than actually was being devoted to the goals described.

The teachers indicated they "use a consultant in special areas" occasionally, but not often (1.1) and they were seldom (.9) "involved in a research program on instruction." Although they felt more time should be used this way, still less than half of the time was listed as ideal (1.6-1.9). "Individual differences are provided for" about 63 per cent (2.6) of the time and the teachers would desire this to occur about 85 per cent (3.4) of the time.

The teachers felt "there is a body of knowledge to be taught" over 75 per cent (3.1) of the time and there should be "a body of knowledge to be taught" about 83-1/2 per cent (3.3) of the time. Of the goals listed, those of "physical health" and "fundamental skills of mathematics" were considered least important, while "work habits" and "self discipline" were rated highest in both the "Actual" and "Desirable" columns.

Note that such goals as "ability to think and evaluate," "intellectual curiosity," and "mental health" were listed as goals for which the teachers desire less time expended.

The responses of elementary teachers are compared with those of secondary teachers in Table 7.

TABLE 7.--Weighted means of total elementary and secondary responses

Selected Questionnaire Items	Means of Responses			
	Actual Practice		Desirable Practice	
	Elementary	Secondary	Elementary	Secondary
In my teaching, I:				
1. use a consultant in special areas.	1.4	.6	2.2	1.6
2. am involved in a research program on	1.0	.8	1.7	1.6

TABLE 7.--Continued

Selected Questionnaire Items	Means of Responses			
	Actual Practice		Desirable Practice	
	Elementary	Secondary	Elementary	Secondary
In my teaching:				
3. individual differences are provided for.	2.9	2.3	3.8	2.7
4. there is a body of knowledge to be taught.	3.0	3.3	3.3	3.4
A goal of my teaching is to develop:				
5. fundamental skills of communication.	3.3	2.8	2.8	2.1
6. fundamental skills of mathematics.	3.2	1.7	2.8	1.5
7. ability to think and evaluate.	3.5	3.4	2.8	2.5
8. work habits and self discipline.	3.6	3.4	3.1	2.7
9. intellectual curiosity.	3.4	3.1	2.8	2.7
10. physical health.	3.0	1.8	2.5	1.5
11. mental health.	3.3	2.5	2.6	2.1

The elementary teachers desired and in actuality did "use a consultant in special areas" and were "involved in a

research program on instruction" more than the secondary teachers.

"Individual differences are provided for" more often in elementary than secondary schools. The secondary teachers felt "there is a body of knowledge to be taught" more often than the elementary teachers, and the secondary teachers felt this should be true even more of the time.

Elementary teachers thought less time should be spent on all the goals listed in items 5-11 than they were actually spending. Still they used more time than secondary people on these goals and desired more time to be used than the secondary teachers considered desirable.

"Fundamental skills in mathematics" was the lowest rated goal of those listed by both elementary and secondary teachers, whereas "ability to think and evaluate" and "work habits and self discipline" were rated as the most desirable goals by both groups of teachers.

Table 8 shows the responses of all teachers grouped according to years of college.

In every item except item 2, the teachers with more years of college education performed the practices listed less often than those with less years of college. Item 2 indicates that teachers with more years of college were more often "involved in a research program on instruction."

In the "Desirable" column, the same relationship as above prevails. The more college education the teachers

possessed, the less time they felt would be desirable for the items listed.

TABLE 8.--Weighted means of responses by years of college education

Selected Questionnaire Items	Years of College	Means of Responses	
		Actual Practice	Desirable Practice
In my teaching, I:			
1. use a consultant in special areas.	0-3.9	1.3	2.4
	4-4.9	1.1	1.9
	5-up	1.0	1.8
2. am involved in a research program on instruction.	0-3.9	.8	1.6
	4-4.9	.8	1.6
	5-up	1.0	1.7
In my teaching:			
3. individual differences are provided for.	0-3.9	2.8	3.5
	4-4.9	2.6	3.4
	5-up	2.6	3.3
4. there is a body of knowledge to be taught.	0-3.9	3.4	3.4
	4-4.9	3.3	3.3
	5-up	3.2	3.2
A goal of my teaching is to develop:			
5. fundamental skills of communication.	0-3.9	3.4	2.9
	4-4.9	3.1	2.5
	5-up	3.0	2.5
6. fundamental skills of mathematics.	0-3.9	3.3	2.8
	4-4.9	2.6	2.3
	5-up	2.4	2.3

TABLE 8.--Continued

Selected Questionnaire Items	Years of College	Means of Responses	
		Actual Practice	Desirable Practice
7. ability to think and evaluate.	0-3.9	3.5	2.8
	4-4.9	3.4	2.7
	5-up	3.4	2.7
8. work habits and self discipline.	0-3.9	3.6	3.1
	4-4.9	3.5	2.9
	5-up	3.4	2.9
9. intellectual curiosity.	0-3.9	3.4	2.9
	4-4.9	3.2	2.8
	5-up	3.3	2.8
10. physical health.	0-3.9	3.2	3.0
	4-4.9	2.7	2.5
	5-up	2.2	2.1
11. mental health.	0-3.9	3.4	2.9
	4-4.9	3.0	2.7
	5-up	2.8	2.6

Table 9 lists the responses of the teachers for each of four categories of teaching experience.

There was hardly any difference in the amount of time teachers "use a consultant in special areas" for the different lengths of experience listed. The teachers with more years of experience desired a consultant be used less than those with fewer years of experience.

For item 2, the teachers with fewer years of experience thought more time should be spent "in a research

TABLE 9.--Weighted means of responses by years of teaching experience

Selected Questionnaire Items	Years of Experience	Means of Responses	
		Actual Practice	Desirable Practice
In my teaching, I:			
1. use a consultant in special areas.	0-1	1.0	2.2
	1-4	1.1	2.0
	5-14	1.0	1.9
	15-up	1.1	1.9
2. am involved in a research program on instruction.	0-1	.8	1.8
	1-4	.7	1.7
	5-14	1.0	1.6
	15-up	.9	1.4
In my teaching:			
3. individual differences are provided for.	0-1	2.5	3.4
	1-4	2.4	3.4
	5-14	2.6	3.4
	15-up	2.8	3.3
4. there is a body of knowledge to be taught.	0-1	3.0	3.1
	1-4	3.2	3.2
	5-14	3.2	3.3
	15-up	3.3	3.4
A goal of my teaching is to develop:			
5. fundamental skills of communication.	0-1	2.5	1.8
	1-4	3.0	2.4
	5-14	3.0	2.5
	15-up	3.2	2.7
6. fundamental skills of mathematics.	0-1	1.8	1.5
	1-4	2.4	1.9
	5-14	2.6	2.4
	15-up	2.9	2.6

TABLE 9.--Continued

Selected Questionnaire Items	Years of Experience	Means of Response	
		Actual Practice	Desirable Practice
7. ability to think and evaluate.	0-1	3.2	2.1
	1-4	3.3	2.4
	5-14	3.4	2.7
	15-up	3.5	3.0
8. work habits and self discipline.	0-1	3.3	1.9
	1-4	3.4	2.7
	5-14	3.5	2.9
	15-up	3.6	3.1
9. intellectual curiosity.	0-1	3.0	2.1
	1-4	3.2	2.4
	5-14	3.2	2.8
	15-up	3.4	3.0
10. physical health.	0-1	2.1	1.6
	1-4	2.2	2.0
	5-14	2.4	2.4
	15-up	2.8	2.7
11. mental health.	0-1	2.5	1.7
	1-4	2.8	2.3
	5-14	2.9	2.7
	15-up	3.2	2.9

program on instruction," but actually the teachers with more years of experience were more often involved in research.

On all the other items (3-11) there was an increase in time spent on the items listed with each increase in years of experience.

The same relationship held true for the "Desirable" column: teachers with more years experience felt the items

listed were more desirable than the teachers with less years of experience.

It still seems evident, however, that all the teachers felt less time should be used than they actually were devoting to those goals listed in items 5-11.

CHAPTER IX

THE RELATIONSHIP OF LEARNER AND TEACHER

Table 10 contains questions which seemed relevant to the teacher-pupil relationship and represents the responses of all the teachers in this study.

Two items seem to occur relatively seldom in this group of practices. Item 1, "teacher-pupil planning," occurred less than half the time and item 6, "students work in small groups," occurred with about the same frequency. All of the other practices occurred more than 2.0, or relatively often, with the practices "explain, demonstrate, or lecture to the total class" and "consider the environmental background of pupils" occurring most frequently of all.

At the midpoint of 2.0 are found the practices "encourage the class to make plans and decisions about what is studied" and "goals for education are established by my students and me."

Teachers who usually teach the entire class as a group (2.5) also use about the same proportion of their time to "help guide students in personal-social problems" (2.4) and "to consider pupil and parent aspirations" (2.6).

TABLE 10.--Weighted means of total population responses

Selected Questionnaire Items	Means of Responses	
	Actual Practice	Desirable Practice
In my teaching, I:		
1. use teacher-pupil planning.	1.6	2.2
2. help guide students in personal-social problems.	2.4	2.7
3. explain, demonstrate, or lecture to the total class.	2.8	2.6
4. teach the entire class as a group.	2.5	2.2
5. encourage the class to make plans and decisions about what is studied.	2.0	2.4
In my teaching:		
6. students work in small groups.	1.7	2.1
7. pupil and parent aspirations are considered.	2.6	3.0
8. the environmental background of pupils is considered.	2.9	3.4
In my teaching, goals for education are established by:		
9. me.	2.3	2.2
10. my students and me.	2.0	2.4

In item 9, the teacher rates "himself" as the most frequent source of "goals for education."

When asked what they considered desirable, the teachers felt all of the practices of this group should be occurring more frequently except for items 3, 4, and 9. They felt they should less often be the ones who set goals for education, although very little less (from 2.3 to 2.2). Also they felt slightly less time should be spent with the entire group in one activity.

Table 11 compares the responses of elementary teachers with those of the secondary teachers for the practices related to teacher-pupil relationships.

TABLE 11.--Weighted means of total elementary and secondary responses

Selected Questionnaire Items	Means of Responses			
	Actual Practice		Desirable Practice	
	Elementary	Secondary	Elementary	Secondary
In my teaching, I:				
1. use teacher-pupil planning.	1.9	1.3	2.4	1.8
2. help guide students in personal-social problems.	2.7	2.0	3.0	2.4
3. explain, demonstrate, or lecture to the total class.	2.6	3.0	2.5	2.8

TABLE 11.--Continued

Selected Questionnaire Items	Means of Responses			
	Actual Practice		Desirable Practice	
	Elementary	Secondary	Elementary	Secondary
In my teaching, I:				
4. teach the entire class as a group.	2.1	3.0	1.9	2.6
5. encourage the class to make plans and decisions about what is studied.	2.2	1.7	2.7	2.1
In my teaching:				
6. students work in small groups.	1.9	1.3	2.1	1.7
7. pupil and parent aspirations are considered.	2.8	2.4	3.2	2.7
8. the environmental background of pupils is considered.	3.3	2.5	3.6	3.1
In my teaching, goals for education are established by:				
9. me.	2.1	2.5	2.1	2.4
10. my students and me.	1.8	1.8	2.1	2.2

Actual practices reported indicate that elementary teachers practice each of the chosen items more often than

secondary teachers with the exception of items 3, 4, and 9. Here the secondary teachers spent more time "teaching the entire class as a group" by the methods of "explaining, demonstrating, or lecturing."

Secondary teachers cited themselves as the source for goals of education more frequently than did elementary teachers.

There was no difference in the proportion of time used by elementary and secondary teachers when "they and the students" cooperatively "established goals for education."

In suggesting what would be desirable, both elementary and secondary teachers felt less time should be consumed in activities by "the total class as a group" and both desired more time occupied in such activities as "teacher-pupil planning," "guiding students in personal-social problems," "encouraging the class to make plans and decisions," "working in small groups," and recognizing "pupil and parent aspirations and backgrounds."

In each of the above named practices where more time was desired, however, the elementary teachers indicated they would like to use a larger proportion of their time for the practice than the secondary teachers.

Another interesting comparison is found in the amount of difference between the "Actual" and the "Desirable" columns. In nearly every item, the secondary teachers showed a larger difference between the actual and desirable practices, whereas the elementary teachers had less spread in

points between their reported practices and what they desired.

Table 12 contains comparisons between the responses of teachers with different years of college education for items concerning pupil-teacher relationships.

The most marked trend found in Table 12 is similar to that found in previous comparisons of teachers with different lengths of college preparation (Tables 4 and 8).

TABLE 12.--Weighted means of responses by years of college education

Selected Questionnaire Items	Years of College	Means of Responses	
		Actual Practice	Desirable Practice
In my teaching, I:			
1. use teacher-pupil planning.	0-3.9	1.9	2.6
	4-4.9	1.7	2.2
	5-up	1.5	2.0
2. help guide students in personal-social problems.	0-3.9	2.9	3.2
	4-4.9	2.5	2.8
	5-up	2.3	2.6
3. explain, demonstrate, or lecture to the total class.	0-3.9	2.8	2.7
	4-4.9	2.8	2.7
	5-up	2.7	2.5
4. teach the entire class as a group.	0-3.9	2.2	2.0
	4-4.9	2.4	2.1
	5-up	2.6	2.0
5. encourage the class to make plans and decisions about what is studied.	0-3.9	2.5	2.9
	4-4.9	2.1	2.5
	5-up	1.9	1.9

TABLE 12.--Continued

Selected Questionnaire Items	Years of College	Means of Responses	
		Actual Practice	Desirable Practice
In my teaching:			
6. students work in small groups.	0-3.9	2.0	2.4
	4-4.9	1.7	2.1
	5-up	1.6	2.0
7. pupil and parent aspirations are considered.	0-3.9	2.8	3.2
	4-4.9	2.6	2.9
	5-up	2.7	3.0
8. the environmental background of pupils is considered.	0-3.9	3.2	3.5
	4-4.9	3.0	3.4
	5-up	2.8	3.3
In my teaching, goals for education are established by:			
9. me.	0-3.9	2.0	2.1
	4-4.9	2.2	2.1
	5-up	2.5	2.7
10. my students and me.	0-3.9	2.2	2.6
	4-4.9	2.0	2.4
	5-up	1.9	2.3

In all items except 3, 4, and 9, the teachers with the most years of college education spent the least amount of time on the selected practices of this group, and in addition, they felt this emphasis was desirable.

Teachers with more years of college preparation said they spent a larger proportion of their time "setting goals

for education by themselves" and "teaching the entire class as a group."

There is practically no change in the proportion of time spent on "explaining, demonstrating, or lecturing to the total class" by teachers within the different categories of college education.

Table 13 contains a comparison of the responses of teachers with varying lengths of experience.

TABLE 13.--Weighted means of responses by years of teaching experience

Selected Questionnaire Items	Years of Experience	Means of Responses	
		Actual Practice	Desirable Practice
In my teaching, I:			
1. use teacher-pupil planning.	0-1	1.3	2.0
	1-4	1.5	2.1
	5-14	1.7	2.2
	15-up	1.7	2.2
2. help guide students in personal-social problems.	0-1	2.2	2.5
	1-4	2.2	2.6
	5-14	2.4	2.8
	15-up	2.6	2.8
3. explain, demonstrate, or lecture to the total class.	0-1	2.9	2.9
	1-4	2.9	2.7
	5-14	2.5	2.3
	15-up	2.4	2.6
4. teach the entire class as a group.	0-1	2.9	2.6
	1-4	2.6	2.2
	5-14	2.4	2.2
	15-up	2.4	2.1

TABLE 13.--Continued

Selected Questionnaire Items	Years of Experience	Means of Responses	
		Actual Practice	Desirable Practice
5. encourage the class to make plans and decisions about what is studied.	0-1	1.7	2.5
	1-4	1.8	2.3
	5-14	2.0	2.4
	15-up	2.2	2.5
In my teaching:			
6. students work in small groups.	0-1	1.5	1.9
	1-4	1.5	2.0
	5-14	1.7	2.1
	15-up	1.8	2.1
7. pupil and parent aspirations are considered.	0-1	2.5	2.9
	1-4	2.4	2.9
	5-14	2.6	3.0
	15-up	2.8	3.0
8. the environmental background of pupils is considered.	0-1	2.8	3.1
	1-4	2.8	3.2
	5-14	2.9	3.4
	15-up	3.1	3.4
In my teaching, goals for education are established by:			
9. me.	0-1	2.7	2.5
	1-4	2.4	2.4
	5-14	2.4	2.3
	15-up	2.1	2.0
10. my students and me.	0-1	1.9	2.3
	1-4	1.8	2.3
	5-14	2.0	2.4
	15-up	2.1	2.4

Almost the opposite trend can be observed in Table 13 as compared to Table 12. Table 13 shows that the teachers with more years of teaching experience spend more time on the practices listed than those with less years of experience. The converse was true for teachers with more years of college education, since they spent less time on the practices as their years of college education increased.

In Table 13, items 3, 4, and 9 are the exceptions to the trend cited above. In those items, the teachers with the most years of experience spent the least amount of time on "setting goals for education by themselves," "teaching the entire class as a group," and "explaining, demonstrating or lecturing." In the "Desirable" column, the same relationships observed above are found to persist with the only difference being the teachers desired more time be expended on all the items than actually was occurring, excepting items 3, 4, and 9.

CHAPTER X

THE ORGANIZATION FOR INSTRUCTION

In this chapter Tables 14 through 17 contain questionnaire items considered related to the organization for instruction.

Item 2 in Table 14 presents a very interesting point. All of the teachers who responded to the questionnaire indicated a relatively large amount of the time (87-1/2 per cent) they were "free to choose the method of teaching." They desire that this be the case even more (90 per cent) of the time.

For all of the items appearing in Table 14, the amount of time involved is relatively great, that is over half of the time, except for items 8 and 9.

The teachers indicated that less time should be spent, ideally, than is actually the case on items 1, 7, and 9. These items concern having "each student use the same textbook," developing "wise use of time," and goals being set by "the administration."

For items 3, 4, 5, 6, and 8, the teachers desire more time be devoted to "units," "independent study," and "problem-solving." Also they felt the "teachers in our school" should establish education goals more often.

TABLE 14.--Weighted means of total population responses

Selected Questionnaire Items	Means of Responses	
	Actual Practice	Desirable Practice
In my teaching, I:		
1. have each student use the same textbook.	2.8	2.3
2. am free to choose the method of teaching.	3.5	3.6
In my teaching:		
3. the problem-solving approach is used to organize learning experiences.	2.1	2.6
4. students learn problem-solving techniques.	2.3	2.8
5. students participate in independent study.	2.2	2.8
6. learning experiences are organized in units.	2.7	2.9
A goal of my teaching is to develop:		
7. wise use of time.	3.4	3.0
In my teaching, goals for education are established by:		
8. the teachers in our school.	1.3	1.6
9. the administration.	1.7	1.4

The responses of elementary teachers are compared with those of secondary teachers in Table 15 for items relating to the organization for instruction.

TABLE 15.--Weighted means of total elementary and secondary responses

Selected Questionnaire Items	Means of Responses			
	Actual Practice		Desirable Practice	
	Elementary	Secondary	Elementary	Secondary
In my teaching, I:				
1. have each student use the same textbook.	2.5	3.2	2.0	2.8
2. am free to choose the method of teaching.	3.4	3.8	3.5	3.8
In my teaching:				
3. the problem-solving approach is used to organize learning experiences.	2.2	2.0	2.4	2.4
4. students learn problem-solving techniques.	2.3	2.2	2.4	2.7
5. students participate in independent study.	2.3	2.0	3.4	2.4
6. learning experiences are organized in units.	2.5	2.9	2.9	2.9

TABLE 15.--Continued

Selected Questionnaire Items	Means of Responses			
	Actual Practice		Desirable Practice	
	Elementary	Secondary	Elementary	Secondary
A goal of my teaching is to develop:				
7. wise use of time.	3.5	3.2	2.9	2.8
In my teaching, goals for education are established by:				
8. the teachers in our school.	1.3	1.2	1.4	1.8
9. the administration.	2.0	1.3	1.3	1.5

Items 1 and 2 indicate secondary teachers are "free to choose the method of teaching" more often (95 per cent) than elementary teachers. Also, they "have each student use the same textbook" more often than elementary teachers. The secondary teachers seem to indicate these two items should occur more often than the elementary teachers would desire.

The secondary teachers indicate that they less frequently use the "problem-solving approach" to help "students learn problem-solving techniques," and also they have their students "participate in independent study" less frequently than elementary teachers.

The elementary and secondary teachers desire that the same amount of time be consumed in using "the problem-solving approach to organize learning experiences." However, the secondary teachers indicate a desire that "students learn problem-solving techniques" 67-1/2 per cent of the time while elementary teachers would desire that 60 per cent of the time be thusly used. There is a marked difference in the desires of the two groups of teachers concerning independent study. While secondary teachers indicate ideally, that 60 per cent of the time "students participate in independent study," the elementary teachers want this to occur 85 per cent of the time.

Item 6, "learning experiences are organized in units," occurs 67-1/2 per cent of the time for secondary teachers and 62-1/2 per cent of the time for elementary teachers. Secondary teachers do not desire any increase here, but elementary teachers do want to increase (from 2.5 to 2.9) the use of units.

"Wise use of time" as a goal of education occurs more often for elementary teachers and they express the desire that this is a goal of education in their teaching more often than the secondary teachers. Again, in both cases, elementary and secondary, the teachers desire that they spend less time on this teaching goal than they use at present.

Both elementary and secondary teachers "establish goals for education" in their school relatively seldom (1.3

and 1.2). The elementary teachers feel this is about as it should be, but the secondary teachers desire to be involved considerably more of the time.

Elementary teachers seemed to desire less "goals for education" established by "the administration," while secondary teachers indicated they desire more administration-set goals.

Responses to items relating to the organization for instruction are shown for teachers with differing number of years of college education in Table 16.

TABLE 16.--Weighted means of responses by years of college education

Selected Questionnaire Items	Years of College	Means of Responses	
		Actual Practice	Desirable Practice
In my teaching, I:			
1. have each student use the same textbook.	0-3.9	3.2	2.3
	4-4.9	2.7	2.2
	5-up	2.9	2.3
2. am free to choose the method of teaching.	0-3.9	3.2	3.5
	4-4.9	3.5	3.6
	5-up	3.6	3.7
In my teaching:			
3. the problem-solving approach is used to organize learning experiences.	0-3.9	2.3	2.8
	4-4.9	2.1	2.6
	5-up	2.1	2.6

TABLE 16.--Continued

Selected Questionnaire Items	Years of College	Means of Responses	
		Actual Practice	Desirable Practice
4. students learn problem-solving techniques.	0-3.9	2.4	3.0
	4-4.9	2.2	2.8
	5-up	2.3	2.8
5. students participate in independent study.	0-3.9	2.6	3.2
	4-4.9	2.2	2.8
	5-up	2.1	2.8
6. learning experiences are organized in units.	0-3.9	2.1	2.8
	4-4.9	2.6	2.9
	5-up	2.8	3.0
A goal of my teaching is to develop:			
7. wise use of time.	0-3.9	3.6	3.2
	4-4.9	3.4	3.0
	5-up	3.3	2.9
In my teaching, goals for education are established by:			
8. the teachers in our school.	0-3.9	1.3	1.6
	4-4.9	1.2	1.5
	5-up	1.4	1.6
9. the administration.	0-3.9	2.1	1.9
	4-4.9	1.7	1.7
	5-up	1.5	1.6

For items 1, 3, 4, 5, 7, and 9, the teachers with more years of education spent less time on the practices indicated. In each case they would desire less time be used for these practices as they acquired more education.

The exceptions to the above trend are items 2, 6, and 8. Apparently teachers "are free to choose the method of teaching" more often as they acquire more years of college education, and they feel this is desirable. "Units" are used more often to organize learning experiences by those teachers with more years of college and they "set goals for education" in their school more often as they gain education. This also is the way they would desire these practices to occur.

Responses are categorized according to the years of experience of the teachers in Table 17. The items relate to the organization for instruction.

The teachers with more experience "have each student use the same textbook" and are "free to choose the method of teaching" less often than those with less experience. They indicated this trend as desirable. In all of the other items (3-9) in this area, the teachers practiced the items more often as they gained more years of experience, and they desired that this trend occur in this manner. They desire that more time be used than they presently devote for each of the items except 1 and 7. Here they felt "each student should use the same textbook" less often, and "wise use of time" less often should be a goal of their teaching, regardless of the number of years of experience.

TABLE 17.--Weighted means of responses by years of teaching experience

Selected Questionnaire Items	Years of Experience	Means of Responses	
		Actual Practice	Desirable Practice
In my teaching, I:			
1. have each student use the same textbook.	0-1	3.2	2.8
	1-4	2.8	2.3
	5-14	1.8	2.2
	15-up	2.8	2.4
2. am free to choose the method of teaching.	0-1	3.7	3.9
	1-4	3.6	3.7
	5-14	3.6	3.6
	15-up	3.5	3.5
In my teaching:			
3. the problem-solving approach is used to organize learning experiences.	0-1	2.0	2.6
	1-4	1.9	2.6
	5-14	2.1	2.6
	15-up	2.3	2.6
4. students learn problem-solving techniques.	0-1	2.1	2.6
	1-4	2.0	2.8
	5-14	2.2	2.8
	15-up	2.5	2.9
5. students participate in independent study.	0-1	1.8	2.6
	1-4	2.0	2.8
	5-14	2.2	2.8
	15-up	2.4	2.9
6. learning experiences are organized in units.	0-1	2.5	2.9
	1-4	2.6	3.0
	5-14	2.8	3.0
	15-up	2.6	2.9

TABLE 17.--Continued

Selected Questionnaire Items	Years of Experience	Means of Responses	
		Actual Practice	Desirable Practice
A goal of my teaching is to develop:			
7. wise use of time.	0-1	2.7	2.2
	1-4	3.2	2.7
	5-14	3.3	3.0
	15-up	3.5	3.2
In my teaching, goals for education are established by:			
8. the teachers in our school.	0-1	.9	1.2
	1-4	1.2	1.5
	5-14	1.3	1.6
	15-up	1.4	1.6
9. the administration.	0-1	1.1	1.3
	1-4	1.5	1.6
	5-14	1.7	1.7
	15-up	1.8	1.8

CHAPTER XI

THE MATERIALS OF LEARNING

The items in Tables 18-21 were chosen as related to the materials of learning.

For every item listed in Table 18, the teachers desire more time be consumed on the practices than they were spending. Item 4, the exception, showed they felt "the content of the textbook" should be covered the same amount of time as it is at present.

Teachers reported they "use field trips" and "people from the community as resources" relatively seldom. Another seldom occurring practice seems to be the use of the "textbook as a supplementary resource."

Items 3, 4, 6, and 7 occurred relatively often.

Although the teachers indicated they "use supplementary materials other than the textbook" about 72-1/2 per cent of the time, they felt that "library facilities," as well as "instructional and learning materials" were adequate "to meet the needs and interests of the students" only about 55-60 per cent of the time.

TABLE 18.--Weighted means of total population responses

Selected Questionnaire Items	Means of Responses	
	Actual Practice	Desirable Practice
In my teaching, I:		
1. use field trips.	1.0	1.8
2. use people from the community as resources.	.9	1.8
3. use supplementary materials other than the textbook.	2.9	3.1
In my teaching:		
4. the content of the textbook is covered.	2.7	2.7
5. the textbook is used as a supplementary resource.	1.1	1.5
6. library facilities are sufficient to meet the needs and interests of the students.	2.2	3.6
7. instructional and learning materials are adequate.	2.4	3.7

In Table 19 the responses of elementary teachers are shown with those of the secondary teachers for items relating to the materials of learning.

The secondary teachers "use field trips" and "people from the community as resources" much less than the elementary teachers. However, they agree with elementary teachers

on the desirable amount of time which should be used on these items.

TABLE 19.--Weighted means of total elementary and secondary responses

Selected Questionnaire Items	Means of Responses			
	Actual Practice		Desirable Practice	
	Elementary	Secondary	Elementary	Secondary
In my teaching, I:				
1. use field trips.	1.3	.7	1.8	1.8
2. use people from the community as resources.	1.0	.8	1.4	1.6
3. use supplementary materials other than the textbook.	3.0	2.8	3.2	3.0
In my teaching:				
4. the content of the textbook is covered.	2.9	2.4	2.8	2.6
5. the textbook is used as a supplementary resource.	1.0	1.2	1.5	1.4
6. library facilities are sufficient to meet the needs and interests of the students.	2.2	2.2	3.6	3.6
7. instructional and learning materials are adequate.	2.4	2.4	3.6	3.7

Secondary teachers "use supplementary materials other than the textbook" and "cover the content of the textbook" less than the elementary teachers. The secondary teachers indicate this is the way they would desire to continue.

There is little or no difference in the amount of "library facilities" and "instructional materials" available to elementary or secondary teachers. Also, both groups would desire about the same amount of these resources available.

For item 5, the secondary teachers show more often "the textbook is used as a supplementary resource" when compared to elementary teachers.

In Table 20 the responses of teachers by number of years of college education are shown for items relating to the materials of learning.

The use of "field trips" and "people from the community as resources" occurred less often for teachers with more years of college education. Also, the teachers with more years of college "cover the content of the textbook" less often than those with fewer years of college.

Items 3, 5, 6, and 7 all occur more often for teachers with more college preparation.

For all items the teachers indicated that the practices would be desirable more than actually occurred, regardless of years of college.

TABLE 20.--Weighted means of responses by years of college education

Selected Questionnaire Items	Years of College	Means of Responses	
		Actual Practice	Desirable Practice
In my teaching, I:			
1. use field trips.	0-3.9	1.2	2.0
	4-4.9	1.0	1.8
	5-up	1.0	1.7
2. use people from the community as resources.	0-3.9	1.1	2.0
	4-4.9	.9	1.4
	5-up	.9	1.4
3. use supplementary materials other than the textbook.	0-3.9	2.8	3.1
	4-4.9	2.8	3.1
	5-up	3.0	3.1
In my teaching:			
4. the content of the textbook is covered.	0-3.9	3.1	3.0
	4-4.9	2.7	2.7
	5-up	2.5	2.6
5. the textbook is used as supplementary resource.	0-3.9	1.0	1.6
	4-4.9	1.0	1.4
	5-up	1.2	1.4
6. library facilities are sufficient to meet the needs and interests of the students.	0-3.9	2.2	3.7
	4-4.9	2.1	3.6
	5-up	2.3	3.6
7. instructional and learning materials are adequate.	0-3.9	2.3	3.6
	4-4.9	2.4	3.7
	5-up	2.5	3.6

The figures in Table 21 show the responses of teachers with varying years of experience for the items relating to the materials of instruction.

For every item in this table, the frequency of the practice increased for the teachers with more years of teaching experience.

There is not such a clear tendency for the responses in the "Desirable" column, however. Although the teachers desired that each practice occur more often than in actuality, there was no clear change in preference for teachers with more years of experience.

TABLE 21.--Weighted means of responses by years of teaching experience

Selected Questionnaire Items	Years of Experience	Means of Responses	
		Actual Practice	Desirable Practice
In my teaching, I:			
1. use field trips.	0-1	.6	1.7
	1-4	.9	1.8
	5-14	1.1	1.8
	15-up	1.1	1.7
2. use people from the community as resources.	0-1	.6	1.7
	1-4	.7	1.8
	5-14	.9	1.8
	15-up	1.0	1.8
3. use supplementary materials other than the textbook.	0-1	2.7	3.1
	1-4	2.6	3.0
	5-14	2.9	3.2
	15-up	3.0	3.1
In my teaching:			
4. the content of the textbook is covered.	0-1	2.6	2.6
	1-4	2.6	2.6
	5-14	2.7	2.7
	15-up	2.7	2.8
5. the textbook is used as supplementary resource.	0-1	1.0	1.4
	1-4	1.0	1.5
	5-14	1.1	1.5
	15-up	1.1	1.4
6. library facilities are sufficient to meet the needs and interests of the students.	0-1	1.8	3.6
	1-4	1.9	3.7
	5-14	2.1	3.6
	15-up	2.4	3.5
7. instructional and learning materials are adequate.	0-1	2.3	3.7
	1-4	2.2	3.7
	5-14	2.3	3.7
	15-up	2.6	3.6

CHAPTER XII

THE EVALUATION OF LEARNING

The evaluation of learning is considered in Tables 22-25. Table 22 contains the responses of all the teachers in this study.

TABLE 22.--Weighted means of total population responses

Selected Questionnaire Items	Means of Responses	
	Actual Practice	Desirable Practice
In my teaching, evaluation of student achievement is based on:		
1. mastery of content and skills.	2.8	2.8
2. behavioral change (growth) of the student.	2.5	2.8
3. standardized achievement tests.	1.0	1.2
4. performance level of the student.	2.6	2.8
5. ability level of the student.	2.6	2.8
6. conduct of the student.	1.5	1.6
7. teacher observation.	2.4	2.5
8. paper and pencil tests.	1.8	1.8
9. effort of the student.	2.6	2.7
10. interview or conference with the student.	1.3	1.9
11. performance in basic skills.	2.7	2.7

Three of the items show no difference between the "Actual" and "Desirable" columns. The teachers indicated they desire no change in the evaluation of student achievement based on "mastery of content and skills," "paper and pencil tests," and "performance in basic skills."

They desire an increase in the use of all other items in the table.

Apparently the most important items for evaluation of student achievement are "mastery of content and skills" and "performance level of the student."

Next in importance are "ability level" and "effort of the student" which equalled the "performance level of the student."

"Behavioral growth" and "teacher observation" were rated 2.4.

Those items which seemed to be less important were "paper and pencil tests," "conduct of the student," "conference with the student," and least important were "standardized achievement tests."

The items where the teachers would desire the most change, that is, greater emphasis as a basis for evaluation, were "conference with the student" and "behavioral change (growth) of the student."

Table 23 shows the responses of elementary and secondary teachers for items relating to evaluation of learning.

TABLE 23.--Weighted means of total elementary and secondary responses

Selected Questionnaire Items	Means of Responses			
	Actual Practice		Desirable Practice	
	Elementary	Secondary	Elementary	Secondary
In my teaching, evaluation of student achievement is based on:				
1. mastery of content and skills.	2.7	2.8	2.8	2.9
2. behavioral change (growth) of student.	2.8	2.2	3.0	2.4
3. standardized achievement tests.	1.2	.8	1.3	1.2
4. performance level of the student.	2.7	2.6	2.8	2.7
5. ability level of the student.	2.8	2.3	3.0	2.6
6. conduct of student.	1.5	1.5	1.7	1.6
7. teacher observation.	2.6	2.2	2.7	2.3
8. paper and pencil tests.	1.5	2.2	1.5	2.2
9. effort of the student.	2.7	2.5	2.8	2.6
10. interview or conference with the student.	1.5	1.2	2.0	1.7
11. performance in basic skills.	2.8	2.5	2.7	2.6

The secondary teachers more often used as a basis for evaluation the "mastery of content and skills" and "paper and pencil tests," but "conduct of the student" was used equally by both elementary and secondary teachers.

All other items in this table were used less often as bases for evaluation of student achievement by secondary teachers than by elementary teachers.

Items 1 and 8 indicate that secondary teachers desire more emphasis than elementary teachers on "mastery of content and skills" and "paper and pencil tests."

For secondary teachers, the most popular items for evaluation were "mastery of content and skills," and "performance level of the student" while the least popular were "conduct of the student," "interview with the student," and "standardized achievement tests."

Table 24 shows the responses of teachers with varying years of college education for the items which relate to the evaluation of learning.

When comparing the columns for "Actual Practices" with "Desirable Practices" it seems that the teachers described above would desire the same emphasis, or an increase in emphasis, on all items listed in Table 24 as part of evaluation.

With the exception of "conduct of the student" and "paper and pencil tests," there is a decrease in emphasis provided each item in the table as the years of education of the teachers rises.

TABLE 24.--Weighted means of responses by years of college education

Selected Questionnaire Items	Years of College	Means of Responses	
		Actual Practice	Desirable Practice
In my teaching, evaluation of student achievement is based on:			
1. mastery of content and skills.	0-3.9	2.9	2.9
	4-4.9	2.8	2.8
	5-up	2.7	2.8
2. behavioral change (growth) of student.	0-3.9	2.7	2.9
	4-4.9	2.5	2.8
	5-up	2.5	2.7
3. standardized achievement tests.	0-3.9	1.2	1.3
	4-4.9	1.1	1.3
	5-up	1.1	1.2
4. performance level of the student.	0-3.9	2.8	2.8
	4-4.9	2.6	2.7
	5-up	2.7	2.8
5. ability level of the student.	0-3.9	2.8	3.0
	4-4.9	2.6	2.8
	5-up	2.5	2.7
6. conduct of student.	0-3.9	1.5	1.7
	4-4.9	1.6	1.7
	5-up	1.5	1.5
7. teacher observation.	0-3.9	2.5	2.6
	4-4.9	2.5	2.6
	5-up	2.4	2.5
8. paper and pencil tests.	0-3.9	1.4	1.4
	4-4.9	1.7	1.7
	5-up	2.0	2.0
9. effort of the student.	0-3.9	2.7	2.8
	4-4.9	2.6	2.7
	5-up	2.6	2.7

TABLE 24.--Continued

Selected Questionnaire Items	Years of College	Means of Responses	
		Actual Practice	Desirable Practice
10. interview or conference with the student.	0-3.9	1.7	2.1
	4-4.9	1.3	1.8
	5-up	1.4	1.9
11. performance in basic skills.	0-3.9	2.9	2.9
	4-4.9	2.6	2.7
	5-up	2.5	2.6

The only obvious increase in importance as a basis for evaluation, with an increase in years of education, is in the item "paper and pencil tests." The most marked differences in practices, which might be attributed to more years of college, are for the items "paper and pencil tests" (more emphasis for teachers with more years of college), "interview or conference with the student" (less use by teachers with more years of college), and the practice of basing evaluation on "performance in basic skills" (less important for teachers with more years of college preparation).

In Table 25 are found the responses of teachers with varying lengths of teaching experience for the items which were considered relevant to the evaluation of learning.

Contrasted to the responses in Table 24 for teachers with differing years of education, the teachers practiced

all the items listed more often with each increase in years of experience. The opposite tendency was noted for teachers with more years of college.

TABLE 25.--Weighted means of responses by years of teaching experience

Selected Questionnaire Items	Years of Experience	Means of Responses	
		Actual Practice	Desirable Practice
In my teaching, evaluation of student achievement is based on:			
1. mastery of content and skills.	0-1	2.5	2.7
	1-4	2.7	2.8
	5-14	2.7	2.8
	15-up	2.8	2.9
2. behavioral change (growth) of student.	0-1	2.1	2.6
	1-4	2.4	2.7
	5-14	2.5	2.7
	15-up	2.6	2.9
3. standardized achievement tests.	0-1	.7	1.1
	1-4	.9	1.1
	5-14	1.0	1.2
	15-up	1.2	1.4
4. performance level of the student.	0-1	2.3	2.7
	1-4	2.5	2.6
	5-14	2.7	2.8
	15-up	2.7	2.9
5. ability level of the student.	0-1	2.2	2.5
	1-4	2.4	2.7
	5-14	2.5	2.8
	15-up	2.8	2.9
6. conduct of the student.	0-1	1.5	1.6
	1-4	1.6	1.7
	5-14	1.5	1.6
	15-up	1.5	1.6

TABLE 25.--Continued

Selected Questionnaire Items	Years of Experience	Means of Responses	
		Actual Practice	Desirable Practice
7. teacher observation.	0-1	2.1	2.3
	1-4	2.4	2.5
	5-14	2.5	2.6
	15-up	2.5	2.6
8. paper and pencil tests.	0-1	1.6	1.8
	1-4	2.0	1.9
	5-14	1.8	1.8
	15-up	1.6	1.7
9. effort of the student.	0-1	2.5	2.7
	1-4	2.5	2.7
	5-14	2.6	2.7
	15-up	2.6	2.8
10. interview or conference with the student.	0-1	.8	1.7
	1-4	1.1	1.8
	5-14	1.3	1.8
	15-up	1.5	1.9
11. performance in basic skills.	0-1	2.4	2.5
	1-4	2.5	2.5
	5-14	2.6	2.6
	15-up	2.8	2.8

For the "Desirable" column, with the exception of "paper and pencil tests" (desired less with more years of experience), the teachers show a desire for an increase in use of all the items with an increase in years of experience.

One other exception is item 6, "conduct of the student," which shows the teachers have no definite desire for a change in emphasis with varying lengths of experience.

CHAPTER XIII

COMPARISON OF SELECTED QUESTIONNAIRE RESPONSES WITH THE BASE

The comparisons made in this chapter were based on the assumption that the description of various instructional practices found in the base of this study represent good activities, as derived from writings in the field of education.

Since a statistical comparison between the questionnaire responses and the base was not feasible, the comparisons necessarily became judgmental in nature. The judgment of the writer is reflected in the comparisons, particularly where the frequency of a practice is considered in the light of the base. Thus, if the frequency of practice was high on an item considered important in the base, the writer judged the particular practice to be "good." Similarly, if the frequence of practice was low on an item of the base considered important, the writer judged the practice "poor" or needing to be changed or improved.

With the above explanation of approach in mind, comparison of the reported instructional practices, in terms of the hypotheses concerning the base listed on page 5, of this study follows.

Hypothesis 2

"There will be a difference between what the teachers say they do and what this study's base suggests they do."

By referring to Table 2, page 67, it can be seen that the practices listed in items 1-10 occurred quite frequently. In light of the base, such practices as helping "students develop initiative, responsibility, and independence," or developing "civic rights and responsibilities" and "ethical behavior," represent very commendable actions.

In the case of the above items, there was little or no difference between the ideals of the base and the actual practices of the teachers.

Items 11-13 of Table 2 present a different picture, however. Evidently the teachers responding to this study recognized a very small amount of influence on "goals for education" by the described representatives of the local community. The base suggests, in the section on Social Foundations, an increase in the amount of involvement of representatives of the community in the process of establishing goals for education. It has been claimed by community members that teachers too often remain "within the four walls of their classrooms." The responses to items 11-13 would tend to support this assertion by the public.

In Table 6, pages 77-78, the frequency that items 5-11 serve as goals of teaching is comparatively high. The base suggests these items should receive heavy emphasis. Teachers who attempt to develop "fundamental skills of

communication and mathematics," "ability to think and evaluate," and good "work habits and self discipline" are emphasizing basic learnings required for all persons, regardless of their future occupations. Such goals as "intellectual curiosity," as well as "physical and mental health," must not be ignored, regardless of the age and capability of the learners or of the subject being learned. The teachers' strong emphasis on these goals in their actual teaching is excellent.

On the other hand, items 1 and 2, according to the base, should receive more emphasis. If education is to follow the scientific method described in the section on Social Foundations, there should be much more involvement of the teachers "in a research program on instruction." A clearer understanding of ways and means of conducting "action research" seems indicated.

Item 3, Table 6, "providing for individual differences," is repeatedly emphasized in the base. Although the teachers reported a relatively high incidence for this practice, it seems mandatory that "individual differences be provided for" almost continuously in a good teaching-learning situation. The principles found in the base lead to the conclusion that this is one of the most important factors in creating a good climate for learning. The teacher must hold the individual needs of each student above all other factors. It is suggested that the teachers were not doing this enough.

Item 4 presents an interesting enigma. The base reiterates the subservience of subject matter, or "a body of knowledge to be taught," to the psychological, emotional, and social needs of the learner. Yet the teachers' responses herein would tend to be the opposite, with the needs of the learner subject to the "body of knowledge" which must be taught. A very basic question raised by this item is "What is subject matter, and what is its relationship to the needs and interests of learners?"

A further question follows from considering the responses to items 4 and 7. Can the heavy emphasis on "the body of knowledge to be taught" be harmonized with the "goal of teaching ability to think and evaluate"?

It would seem that there is a body of knowledge to learn in almost every case, but the heavy emphasis shown by the teachers' responses leads to the suggestion that they are overstressing the "facts" and therefore do not give pupils the chance to develop the "ability to think and evaluate" which the base describes as so important.

Table 10, page 88, contains several items which would be considered good practices in the base. They are items 1, 2, 5, 6, 7, 8, and 10. Of these items, numbers 1 and 6, the use of "teacher-pupil planning" and "students working in small groups," should occur much more frequently than the teachers reported. In the section of the base on Organization for Instruction the two activities named above are extremely important factors in providing for the individual

needs of the learners. The frequency of the other "good" practices seems to be adequate. The base outlines the importance of "helping guide students in personal-social problems"; including the class ideas on "decisions about what is studied"; and considering the "aspirations and background of pupils and parents."

The frequency of practice for items 3, 4, and 9 is questionable. If the teacher uses much more than half of the time "explaining, demonstrating, or lecturing to the entire class as a group" and decides the goals for education by himself much of the time, then the role of the learner will be too passive. The emphasis indicated here is upon the teacher "telling a lesson" to the learner who must "be quiet and listen," rather than encouraging him to think, question, evaluate, and generalize.

If individualizing instruction is to occur, the strong emphasis reported on items 3, 4, and 9 should be reversed. These teachers need to re-examine their activities.

In Table 14, page 93, the teachers indicated they were "free to choose the method of teaching" approximately 87-1/2 per cent of the time. If this is true, it gives great import to the statement found in the base that the heart of the educational enterprise is in the teacher-learner relationship. Efforts to improve the teaching-learning process must directly affect the individual teacher, since apparently he is the one who makes the final decisions regarding instructional practices. The importance of the teacher in the

total educational climate cannot be overlooked, and their freedom to make critical choices is underlined by item 2. Therefore, to the extent the teachers are involved in curriculum decisions will be the extent of curriculum change.

Item 1 of Table 14 represents an activity which the writings in the base would change. Having "each student use the same textbook" is a practice which greatly limits the ability of the teacher to individualize the instruction.

Emphasis on Items 3-9 is quite commendable, although it is doubtful that "learning experiences organized in units" could occur the same amount of time that "each student uses the same textbook." It is suggested that one of the important facets of "units" is the use of several different textbooks by students at the same time. It is possible that the teachers responding to this study did not define "unit" in this manner.

The recommendation from the base calls for more "use of field trips and people from the community as resources" and less emphasis on "covering the content of the textbook" than is indicated in Table 13, page 108.

Another improvement would be to "use the textbook as a supplementary resource" more often. Certainly a more "adequate supply of library, instructional and learning materials" is needed. Perhaps the emphasis on textbooks found in previous tables is due in part to the comparative lack of other teaching materials.

The teachers "cover the content of the textbook" much more than would seem desirable. The predetermined content and sequence of textbooks might not always meet the needs of individual classes or students.

Table 22, page 114, is devoted entirely to the subject of evaluation of learning. On the whole, it would appear that the practices reported by the teachers in evaluation are in accord with the principles outlined in the base.

Suggested changes would be in the direction of less emphasis on "mastery of content and skills" coupled with more emphasis on "interview or conference with the student." Evaluation must become more of a process, rather than an end, and the involvement of the student in the process is vital. A refreshing note is the relatively small emphasis on "paper and pencil tests."

The following summary of observations seems warranted in comparing the ideas of the base with the actual practices of the teachers.

1) In general, the practice of the selected instructional activities falls short of the ideals proposed in the base, thus supporting hypothesis two.

2) Practices most in need of improvement are classified as those relating to the individualizing of instruction and balancing the emphasis on subject matter with mental health, personality development, and learning how to learn.

3) The great extent that teachers are free to choose the method of teaching emphasizes the key position

which the teacher holds in the area of curriculum improvement.

4) Evaluation practices as reported were quite favorable, with the exception that the learner ought to be involved more in the total evaluation process.

Hypothesis 3

"There will be no difference between what the teachers think they should do and what the study's base suggests."

Table 2, page 67, supports this hypothesis for all the items except the "goals of teaching." In the case of these items, the teachers expressed a strong desire to have such things as "respect and appreciation for human values," "ethical behavior," and "awareness of our relationship with the world community" occupy less of their teaching time. The base writings suggest just as strongly that these kinds of goals for teaching are much more appropriate than the usual emphasis on "a body of knowledge."

In Table 6, pages 77-78, the same generalization seems warranted. The teachers express the desire to have their teaching improve toward the base ideals, except for "goals of teaching" such as "fundamental skills of communication and mathematics," "work habits and self discipline," or "mental health." Instead of desiring more of these goals, they want less effort and time to be given to teaching these things. Coupled with the reduction in time spent on

developing "intellectual curiosity," for example, is the desire to increase the emphasis on the "body of knowledge to be taught." This is in direct opposition to the principles set forth in the base.

Every item in Table 10, page 83, supports hypothesis three. All of the practices which concur with the base were rated as more desirable by the teachers, while the three items which should be emphasized less, according to the base, were rated as less desirable. These less desirable items were "setting goals by me" and "explain, demonstrate, or lecture to the total class as a group."

Table 14, page 98, follows the pattern of Table 10. That is, the precepts of the base are the same as those expressed as more desirable by the teachers.

The exception is item 7, "wise use of time" as a "goal of teaching." The teachers want this goal to be less important.

Table 13, page 108, once again shows the teachers expressing the desire for more of the practices acceptable to the guidelines of the base.

Table 22, page 114, seems to support hypothesis three, since the teachers show a desire for more of the practices which were considered better in the section of the base concerned with Evaluation of Learning. In addition they expressed no desire to increase the less valuable parts of evaluation such as "mastery of content and skills," "paper and pencil tests," or "performance in basic skills."

In summary of the hypothesis concerned with comparing the base and the teachers' desired practices, the following statements seem to be justified.

1) In general, the practices which were more desired by the teachers tended to support hypothesis three. The teachers recognized that they should be doing better teaching, and the "desirable" practices more nearly conformed to those of the base.

2) The interesting exception is in the area of "goals of teaching." The only goals which the teachers seemed to want increased were of the "subject-matter" type. Personality characteristics and "learning how to learn" were not so desirable as goals of teaching.

Hypothesis 4

"Instructional practices will more nearly correspond to this study's base for the following:

a) elementary teachers,

b) teachers with more years of college education,

c) teachers with more years of teaching experience."

Examination of data in Tables 3, 7, 11, 15, 19, and 23 will show that elementary teachers' practices much more nearly corresponded to the base when compared with the practices of secondary teachers. This seems to corroborate hypothesis 4, a).

A few examples will serve to illustrate. In Table 3, item 1 shows that "students learn to work together" 3.1 for

elementary and only 2.5 for secondary teachers. Item 3 of Table 7 indicates elementary teachers "provide for individual differences" 2.9 as compared to 2.3 for secondary teachers. Elementary teachers listed "mental health" as a goal of their teaching 3.3 while secondary teachers listed the same as a goal 2.5.

For items which the base would suggest less time, the elementary teachers actually used less time than secondary. Table 11, item 3, has 2.6 for elementary teachers who "explain, demonstrate, or lecture to the total class" while secondary teachers do this 3.0, or more of the time.

Finally, "evaluation of student achievement was based on behavioral change (growth) of the student" 2.8 by elementary and only 2.2 by secondary teachers, as found in item 2 of Table 23.

Teachers with more years of college education were found to emphasize practices which were opposed to the ideals of the base. Tables 4, 8, 12, 16, 20, and 24 showed the more college education the teachers acquired, the less desirable became their practices. This tends to refute hypothesis 4, b). The reader is referred to the tables listed for details, but the following examples will demonstrate the point.

In Table 4, item 1, the "students learn to work together" 3.1 for teachers who have less than 4 years of college; 2.9 for those with 4 to 9 years of college education; and only 2.7 for teachers who have the master's

degree or higher.

"Individual differences are provided for" in item 3, Table 8, by teachers who have under 4 years of college 2.8; and 2.6 for teachers with more than 4 years of college education. The same type of response is found in almost all items in the tables. Teachers seem to become less effective as they achieve more years of academic preparation.

On the other hand, teachers with more years of teaching experience tended more nearly to follow the base. Tables 5, 9, 13, 17, 21, and 25 showed that practices improved, in terms of the base, for teachers who had more years of experience, thus lending support to hypothesis 4, c).

For purposes of contrast, the same items which were used to illustrate hypothesis 4, b) will be used for hypothesis 4, c).

Table 5 shows in item 1 that "students learn to work together" 2.5 for teachers in their first year of teaching; 2.6 for those with 1 to 4 years of experience; 2.8 for the teachers who had taught from 5 to 14 years; and 3.0 for the teachers with more than 15 years of teaching experience.

In Table 9, "individual differences are provided for," item 3, by teachers in their first year of teaching 2.5; by teachers who have taught from 1 to 4 years 2.4; by teachers with 5 to 14 years teaching 2.6; and 2.8 for teachers with more than 15 years teaching experience.

It seems clear that the practices improved for teachers who had more years of teaching experience.

Regarding what seems to be conflicting results, in that the teachers with more years of college showed different practices than the teachers with more years of experience, a recent issue of the National Education Association Journal has some interesting figures. From a study by their research division reported therein, it was found that teachers who had the most years of college but less experience were male, and conversely, the teachers who had the most years of experience but less formal college were female.[1] This leads to the suggestion (not considered in the data of this study) that perhaps the teachers who had the most experience and best practices were women, and those who had the most years of college but poorer practices were men. As mentioned parenthetically above, this study did not tabulate the responses by sex differences.

In conclusion of this chapter, it was found that, when compared to the base, the practices as reported by all the teachers were in need of improvement; there was little or no difference between the teachers' "ideal" practices and the base--they seemed to know what was considered "good." Elementary teachers were better than secondary teachers in light of the base; and the teachers with more years of college education showed poorer practices than those with more years of experience.

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[1]"American Public School Teachers, 1960-61," N.E.A. Journal, Vol. 52, No. 4 (April, 1963), pp. 50-51.

PART III

CONCLUSIONS AND OBSERVATIONS

CHAPTER XIV

CONCLUSIONS AND OBSERVATIONS

Conclusions

Based on the analysis of data from the questionnaire responses the following conclusions would seem warranted.

1) There was a difference between the selected instructional practices reported by the teachers and their ratings of the desirability of the practices. In most instances, the teachers seemed to recognize that the "good" practices (as defined by the study's base) should occur more frequently. Conversely, they desired less frequency for the practices defined by the base as "not good."
2) Exception to the above conclusion was found in the items classified as "goals of teaching." The base described such goals of teaching as "wise use of time," "ethical behavior," "ability to think and evaluate," and "aesthetic appreciation" in a very favorable way. Although the responses of the teachers indicated these goals were dominant in their actual teaching, they expressed the desire that these goals be of lesser importance.

3) There was a difference between what the teachers said they do and what the base suggested they do. In general, the practice of the selected instructional activities fell short of the ideals proposed in the base.

4) With the exception of items in "goals of teaching," there was practically no difference between what the teachers thought they should do and what the study's base suggests.

5) Elementary teachers had better practices than secondary teachers, and they desired more of the "good" practices than secondary teachers.

6) Teachers with more years of college education generally favored the "poorer" practices. The more years of college preparation, the poorer were the practices.

7) Teachers with more years of teaching experience generally favored the "better" practices. The more years of teaching experience, the better were the practices.

8) The teachers were "free to choose the method of teaching" a mean of 87-1/2 per cent of the time, and the most important source for "establishing goals for education" was "me" (the teacher).

9) The influence on "goals for education" by "representatives of the community" or "the school administration" was very slight.

10) The single most important factor in control or change of the teaching-learning process is the classroom teacher.

11) Another powerful factor in the teaching-learning process seemed to be the textbook.

12) Thus, any efforts to improve instructional practices must focus on the individual teachers and their perceptions, coupled with careful analysis of the role textbooks play in the climate for learning of individual classrooms.

Observations

The following observations were considered worthy of consideration, although they may not be as clearly derived from the data as were the conclusions in the previous section.

It seemed to the writer the practices as described by the teachers represented a rather accurate picture of the status of instructional activities in many of our contemporary public schools.

In light of the writings in the field of education and the data from the questionnaire responses, there seemed to be room for improvement and need for a strong change in emphasis in the selected educational practices described in this study.

In spite of the obvious impossibility of acquiring all the facts in "the body of knowledge to be taught," as

has been emphasized by most leaders in the educational field for over half a century, most of the teachers indicate this as their major teaching goal. This emphasis by teachers on subject matter seems to belie the fears of contemporary critics of American education concerning a softening of the schools' modern curriculum.

In fact, the desires of the teachers seem to follow the same pattern as the critics when they indicate goals such as "mental health," "social competency," "wise use of time," or "work habits and self discipline" should occupy less of their teaching efforts. In addition, the most important basis for evaluation of student achievement cited by the teachers was "mastery of content and skills." It is suggested that this is what the critics of education have been demanding.

The task of professional educators today must be more comprehensive than teaching facts. The success of our democratic society depends upon human relations as much as it does upon mastery of "the body of knowledge to be taught." After mastery of the basic skills of communication, it seems that ability to think and evaluate and learning how to learn are more legitimate and enduring goals for education in our dynamic and rapidly expanding society of today. It has been confirmed many times that the children being educated today will be occupied in jobs and skills which are not even in existence at present. If the needs of our society are to be met, the schools must produce learners capable of continuing

learning long after the finish of their formal education.

Although the conclusions in the previous chapter suggested a difference in practices for the several kinds of teachers described, it seemed that another way to consider these results was possible. There appeared to be only a small difference in the practices between any of the groups concerned. That is, there was not much difference in the practices of teachers of elementary or secondary levels; nor much difference between teachers with few or many years of college; nor between teachers with a short or long length of experience. It is suggested that there was a fairly standard type of teaching occurring in each of the classifications considered. It is possible that the questionnaire designed for this study was not able to measure the primary factors which determine the difference between mediocre and outstanding teaching.

The primary observation of the writer after conducting this study was as follows.

There are many differing, but legitimate, kinds of teaching occurring in the public schools today. There are many variables which can be altered, such as grouping procedures, grading systems, scheduling time, varying content, enriching course offerings, supplying extra instructional materials, providing consultant help, improving working conditions, consolidating districts, and so on, down a long list of possibilities. Much of the effort of educators

today is concerned with ideas like those presented above, and these things must be considered.

However, there is a key factor which transcends all such efforts to improve educational systems. It is the climate for learning which exists every time a teacher and a learner meet. This "climate for learning" is the product of human relations which develop between the teacher and the learner as they work together.

The heart of teaching is found in the effort of one human to help another become a better person. The most challenging and rewarding experiences of teaching arise from the human relations which occur between the teacher and the learner as they work together toward higher goals. It is felt that this relationship can occur in an amazing variety of educational situations. The systems which help engender continuous teacher-pupil relations of the kind described are best, naturally. But good teacher-learner relations can occur in spite of the various kinds of educational patterns which exist. The teacher, and how he perceives other people, in the final analysis, will be the determining factor in establishing a good or poor climate for learning.

An educational system wherein people are most important, and a non-threatening atmosphere exists, will help human relations develop to their fullest, and will make it possible for both teachers and learners to perceive and to become better humans as they work together toward this ultimate goal of education.

It is suggested that a most fruitful area for further research lies in analyzing and developing the best human relations inherent in the teacher-pupil relationship. Further studies might attempt to develop ways and means of implementing the knowledge gained concerning human relations in teacher education programs.

APPENDIX A

MICHIGAN EDUCATION
ASSOCIATION ... ...
935 N. Washington Ave.
Box 5007, Lansing 5, Michigan

May 4, 1961

Dear Fellow Educator,

This is the second and last questionnaire being distributed by the newly organized Research Division of the Michigan Education Association, in cooperation with the Detroit Education Association during the 1960-61 school year. Research in education is a much needed activity - it requires the time and participation of many professional people. It is hoped you will contribute once again.

The response to the first study - "moonlighting or holding of a second job" - was very gratifying. Approximately seventy per cent of the persons receiving the questionnaire responded - a remarkable return in view of no "follow-up" letter. We sincerely hope the replies to this second study will be at least as good or better. Results of both studies will be reported in the "Journal" next fall.

The present study (enclosed questionnaire) is an attempt to discover the present status of classroom practices. It is not intended as an evaluation of your individual practices. Your answers and opinions will be machine punched and analyzed without reference to individual names. However, a small percentage of respondents will be interviewed later, so we are asking for your name and school district. This is a research project and we wish to assure you it will be completely objective. Please answer all questions as frankly as you can, since only then can the results be meaningful.

Time and financial limitations again make any complete follow-up impossible. We trust your interest will enable us to complete a successful study. We again want to thank you for your cooperation. This type of study will be continued next year, but an entirely new sample of membership will be made, so in all probability this will be our last communication of this nature to you.

Sincerely,

Stanley Hecker (signed)
Director of Research
Michigan Education Association

Alfred Jones (signed)
President
Detroit Education Association

Please return questionnaire by May 19th.

APPENDIX B

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