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# Determining teacher values to improve school communications

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**Determining teacher values to improve  
school communications**

by

**John B. Patzwald**

**A Dissertation Submitted to the  
Graduate Faculty in Partial Fulfillment of  
The Requirements for the Degree of  
DOCTOR OF PHILOSOPHY**

**Major Subject: Educational Administration**

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## INTRODUCTION

### The Problem

This chapter contains an introduction providing the background of the teachers' role in quality education, a statement of the problem with its basic assumptions, guiding questions and null hypotheses, the purpose of the study, a listing of key terms to be used in the study and their definitions, the sources of data, the delimitations and a description of the organization of the study.

### Background and Setting

This study will attempt to re-emphasize the importance of effective communications playing a major role in quality education. There are many reasons given for the quality teacher shortage, including the burden of routine chores that keep teachers from working with pupils and other variables which affect the educational environment. The urgency of the problem of providing assistance to teachers has been shown in many ways. The NEA's National Commission on Teacher Education Professional Standards was abandoned in 1967 in favor of thousands of local meetings around the country. The purpose was to designate the teacher and the staff as a more important organ in the educational picture. A teaching staff is often frustrated when denied the opportunity to teach appropriately in our increasingly complex society. Although our society expects and demands quality education for its youngsters, which means effective teaching, teachers' energies are drained by a great variety of extraneous demands and apparent concerns.

Certainly all in education will agree that education is moving and will continue to move toward greater freedom of choice for both teachers and students. This direction will also include, or has included, more personal individual attempts to individualize not only the learning process but also teaching styles and techniques. Teachers may be the most important element in our total school program, more important than the quality of facilities, materials, equipment, or the level of financing. This was borne out by a survey of nineteen School Effectiveness Studies compiled by John Guthrie (1968) of the University of California, Berkeley, and three colleagues. Fifteen of the studies found teacher characteristics to be significantly associated with more measures of pupil performance. This further creates the need to determine whether changing the school climate can successfully achieve a change in the people functioning in that climate.

To minimize the impact of the word change in our educational situation could facilitate the implementation of a program which would provide a change of attitudes in teachers. Further, the word change which produces so many emotional reactions because of its lack of neutrality for too many people, is extremely threatening. Change perhaps conjures a vision of a revolutionist, a dissatisfied idealist, a troublemaker, or a malcontent. There are nicer words identifying the process of changing people, such as education, training, orientation, guidance, doctrination, and therapy. Often individuals are more ready to have others educate them than to change. It is easier to train others than to change them. Why this emotional response? What makes the two kinds of words have such different meanings? A large part of the difference lies in the fact that

safer words like education carry the implicit assurance that the only changes produced will be good ones, acceptable within a currently held value system. The cold unmodified word change on the contrary, promises no respect for value; it might even tamper with values themselves. Perhaps for this very reason, it will foster "straight thinking" if the word change is used and thus force a struggle directly, self-consciously with the problems of values that are involved. Words like education or training by the very fact they are not so disturbing, may disguise the fact they too, inevitably, involve values. Certainly another advantage of using the word change rather than other related words is that it does not restrict our thinking to a limited set of aspects of people, areas, or values that are legitimate targets of change.

Development of a few basic principles that could apply to all types of modifications and people, a word like change, could tend to keep thinking general enough. For these reasons, much of the work in education has been devoted to gain a better understanding of the ways in which people think in order to change their values or understand the resistant efforts by others to have them do so. This is most difficult to evaluate. Investigators who have sought new insights to explain and predict human behavior have, since World War II, projected various surveys of attitudes, opinions, beliefs, and customs to systematically study values of segments of our society.

This study will attempt to identify the values of teachers in an educational program which are associated with the change process. The

result of efforts by school systems to provide for individual differences has created in most schools potential conflict between the various human elements. These may take the shape of polarization, plateaus, or open differences over programs designed to meet individual human needs. It therefore seems necessary to gather information about the values found in the teaching profession in order to understand better the change process.

#### The Problem, Basic Assumptions and Hypotheses

The problem of this study is an attempt to determine and test how teachers perceive a school and then to determine if there is a significant difference in values between schools when they were categorized at different stages in the change process. This is extremely important for a school system considering educational change, to develop a way in which to measure the present tempo of teacher values. With what is presently understood about the theories of teacher behavior, areas of concern or more appropriately stated, values of teachers could be identified in given situations. The school would then be better able to confront these concerns and arrive at workable solutions together. It is further assumed that if there are various characteristics of an individualized learning environment present, the values of teachers would be different toward common problems confronting education in a school which has attempted to define or implement more than in a school which has not developed the flexibility to implement the various components of an effective individualized instructional program. Differences in values may also be



found among categories of age, sex, and experience of teachers. The rationale underlying this study is expressed by the following basic assumptions paraphrased from Dr. David G. Ryan (1960). He is presently the chairman of the Department of Educational Psychology at the University of Texas. Dr. Ryan directed the Teacher Characteristics Study while a professor at the University of California. This study was a coordinated program of research sponsored by the American Council on Education and supported by the Grant Foundation. It involved systematic classroom observation and assessment directed at the identification of teacher behavior.

1. Values are a function of situational factors and characteristics of an individual.
  - A. Values are relatively consistent, reliable, and therefore capable of being predicted.
  - B. Values can be predicted only with varying degrees of probability.
  - C. Values are determined in part by one's personal and social characteristics, e.g., in the intellectual, emotional, temperamental, attitudinal, and interest domains which have their sources in both genetic (unlearned) and experiential (learned) background of the individual (Ryan, 1960).
  - D. Values are a function of general features of the situation in which it takes place. This may be determined in part by general features of the situation in which it has its setting features which may be observed to be common to situations of

a general class and which therefore may be distinguished from the unique features of various situations (Ryan, 1960).

E. Values may be an outgrowth of a specific situation.

2. Values are observable.

A. In an attempt to study values, there is an assumption that values may be identified objectively, either by direct observation or by indirect approaches. Examples of the indirect approaches are the assessment of individuals, the use of tests of abilities and knowledge, and the use of interviews or inventories to elicit expression of individual preferences, interests, beliefs, and attitudes (Ryan, 1960). Implications of this assumption may be illustrated by the following:

- 1) If individual values are observable, they may be identified, described, and distinguished from other values.
- 2) Values may be classifiable qualitatively and quantitatively. A classification is simply a grouping of observed values which are common to one another and have few differences.
- 3) Similar values will have certain common elements which may be classified in the same qualitative category. Within any given category, these values may be further assigned to subclasses which may be treated quantitatively. These quantitative subclasses may be either of two

types:

- a) Those permitting enumeration or counting
- b) Those characterized by continuity.

It is important to indicate at this point that the measurement of values must always be approximate rather than exact. This is not only a theoretical consideration but also an empirical fact. The existence of error must be assumed due to the complexity of human elements and the resulting variability of values and the imperfection of value descriptions and of devices available to obtain values.

While various qualitative classifications of teacher values are possible, they may be grouped broadly into such general categories as: those involving instruction and relationships with pupils; those involving relations with the school, its organization, and its administration; and those involving relationships with the community. Teacher values may be more specifically classified in such categories as verbal aptitude, emotional stability, favorable attitude toward pupils, friendly understanding behavior in dealing with pupils, responsible businesslike behavior, and stimulating original behavior.

3. Teacher values are revealed through overt behavior and by the following symptoms:

- A. Representative sampling of specific teachers
- B. Specific signs or indicators of values under consideration.

In sampling values, the assumption is made that the performance

of the individual during the sample is approximately representative of his peer group.

The above paraphrased assumptions from Ryan (1960) lead to the following two basic questions:

1. Is there a significant difference in teacher values among schools categorized at different levels of involvement in the individualized learning process?
2. Is there a significant difference between teacher values when teachers are categorized by sex, age, and years of experience?

From these two questions the following null hypotheses were generated.

1. There is no significant difference in teacher values among schools categorized at different levels of involvement in the individualized learning process.
2. There is no significant difference in teacher values when teachers are categorized by sex.
3. There is no significant difference in teacher values when teachers are categorized by age.
4. There is no significant difference in teacher values when teachers are categorized by years of experience.

#### Purpose of the Study

The purpose of this study is to find a way to allow a teacher to say what he thinks appropriate in his own words without requiring a choice

among prepared alternatives. In this way one hopes to gain an insight about teacher values.

It is further planned to test whether there is a significant difference in teacher values between schools categorized at various stages of the change process to individualized learning, and also between teachers when categorized by sex, age, and years of experience.

### Terminology and Definitions

In order to clarify the meanings of various terminology used in this study, the following definitions are made:

1. Individualized instructional situations - This will include all opportunities for successful learning which may be affected by any of the following:
  - A. Human Elements - All human resources within a school district; student, teacher, administrators, and paraprofessionals, etc.
  - B. Activities - All planned learning strategies implemented to attack the goal of mastering the learning objective.
  - C. Content - The specific content of the course or objective within an academic area.
  - D. Materials - All print and non-print materials available to the human elements.
  - E. Performance criteria - The specific or acceptable standards of performance expected by the human elements.
  - F. Time - The flexibility of this factor as it applies to

requests and needs of the human elements.

- G. Finances - The availability of money necessary to meet the successful achievement of the planned educational goals by the human elements.

In order to develop the optimum of most effective instructional procedure for each individual, at least one of the option components stated above must be present. The number and combinations of the components involved in the process will determine the level of individualized learning optimum.

The following numerical rankings were assigned after conferring with the principals of the respective schools:

	School A	School B	School C
Human factors	2	3	3
Activities	3	2	3
Content	3	2	4
Materials	3	2	3
Performance criteria	2	3	3
Time	2	2	3
Finances	3	3	4

These rankings are estimates of level of involvement by the principal in the utilization of the variables of the individualized learning situation. Range 1 to 4 -- with 1 being little usage to 4 highly utilized.

2. Echo - a method of collecting and studying values. It differs from most other methods by allowing a respondent great latitude of statement by relating stated values to stated causes or social

influence and by eliciting multiple statements. It is one kind of survey used to gather and analyze information about the values of groups.

3. Teaching experience - defined as follows:

A. Inexperienced

1 to 10 years

B. Experienced

11 years or more

4. Sex - Male and Female

5. Age

A. Y = Younger, 30 years or less

B. O = Older, 31 or over

The following definitions have been defined by the authors (Milburn, Barthol and de Mille, 1968) of the Echo Method:

6. Definitions of value and related concepts - The concept "value" as used in this study incorporates the ideas of goodness, attractiveness, interest, preference, satisfaction, and their opposites. Stimuli or outcomes which man finds attractive and thus preferable to others have positive values; the reverse is true of negative values. As predictors of behavior, values are independent of concepts concerned with capacity (e.g., intelligence, power, social skill). Individuals hold values, but values may also belong to groups, organizations, societies, and cultures, or they may be specific to roles and situations. Values result from shared human perceptions and shared meanings.

They tend to be stable, but may change in strength and order over time and with changing circumstances.

Value is defined as the implicit or explicit estimate by a person, group, or organization of the merit, excellence, desirability, or worth of a behavior, principle, quality, event or entity.

A value may be more or less bound to a particular person, role, situation, or object; it may vary along the independent dimensions of desirability and demand; its importance to the holder may be modified by the expectation (subjective probability) of the appearance of what is valued and other events (e.g., success or punishment) that may be associated with it. The investigator bases his determination of the value's specificity on the operations he uses to collect and analyze the data which generate the value statement. The value may be detected by observing behavior directly or by studying written or spoken reports of it.

Values may be further defined by four conceptual variants:

- A. Values are selection criteria, bases for judging the merit of objects, persons, ideas, events, or relations. They are bases for choosing or for developing agenda.
- B. Value is also used to refer to behavior which has a required or "ought to do" quality. Such usage emphasizes the moral aspect of the concept, and it emphasizes values as behavior rather than as stimuli.



- C. By contrast, some psychologists concerned with the experimental analysis of behavior use the term value to refer to those objective stimuli which are apparent goals of an organism (reinforcing stimuli). Thus, a person may be described in terms of those internal or external stimuli that serve to influence his behavior (rather than in terms of his needs, wants, or ambitions.)
- D. Social psychologists emphasize either the affective (feeling, sentiment) part of values, or the expectancy (set, attitudinal) part of values. In their study of the structure of meaning in various languages, Osgood et al. (1957) consistently found that the first factor extracted from their matrices of correlations among word qualifiers was the evaluative factor. They see values as the primary component of meaning. Values seen as sentiments, or as the primary component of language-meaning structures, are not very different from attitudes except that they are more general.

The following terms - attitudes, norms, beliefs, habits, customs and folkways, mores, and opinions - are all related to values. They will be defined, but the definitions must be considered somewhat arbitrary since they are used uniquely by some persons and interchangeably\* by others.

\*There can be some rationale for this. Values may be seen as attitudes largely as more abstract and general attitudes, particularly when values are seen only as preferences or criteria, with no oughtness or legitimation implied. Beliefs are treated here as if analytically distinguishable from values and attitudes because the distinction appears feasible and useful. However, others may reasonably regard beliefs as merely the intellectual (cognitive) components of attitudes. And still others emphasize the cognitive aspect of values including all values under the rubric of beliefs.

7. Attitudes are defined as predispositions to respond to entities or to situations in specific ways. The object of an attitude may be abstract (democracy, love) or concrete (my dog). An attitude may be inferred from behavior. Attitudes have both intellectual (cognitive) and emotional (affective) components although the affect may be neutral. The social legitimacy of a disposition or preference is irrelevant to its classification as an attitude.
8. Norms are rules, standards or patterns of behavior in specific situational contexts shared by two or more persons. Norms tend to reflect consensus and a common value system within a group. The term value may refer to a specific behavior; that same behavior, when commonly performed in a group, may also be called a norm. Behavioral norms can be identified from observation or inferred from verbal reports. Just as publicly held values are unreliable indicators of private behaviors, so norms that are inferred from reports of private behavior are unreliable indicators of publicly held values.
9. Beliefs are enduring, perceptual, and cognitive structures about the nature of reality; they are statements concerning what is real and credible in and about a person's world. Belief systems may be open or closed, i.e., flexible and open to change on the basis of new evidence or not; ideologies are coherent and tend to be closed and inflexible. Krech and Crutchfield (1948) suggested that beliefs could differ in precision, specificity, strength,

and saliency. The strength of beliefs need not depend upon verification or the possibility of verification, e.g., superstitions and beliefs about the existence of a supreme being. Beliefs and attitudes give continuity to a culture as well as to the personality of individuals. They give meaning to daily perceptions and activities and may arise because of the human need for meaning; they determine which solutions to problems are chosen.

10. Habits are learned actions, feelings, or way of perceiving. Habitual behaviors may be contrasted with other behaviors which are based on choice. To act, feel, and perceive a certain way from habit is to do so because such behavior has been reinforced in the past and has become semi-automatic, not requiring conscious choice or awareness of preference.
11. Customs and folkways are more than mere aggregates of individual habits; they are concrete social patterns of behavior, the outcome of shared but large unreflective trial and error adjustments. They are always supported by social approval, and deviations from them may be punished.
12. Mores are customs "regarded by general agreement as highly important and obligatory, as evidenced by strong sentiments against deviation and by severe punishment for violation. Incest taboos and rules against in-group murder, rape, cannibalism, and other practices generally regarded as especially heinous," (Williams, 1968) are examples of mores; so are the obligations

of the scientific community to report accurately and completely.

13. An opinion is a view, judgment, or appraisal formed about a particular matter, the term implies a conclusion that is open to contradiction. Opinions have neither the proven property of knowledge nor the unproven property of faith (a firm belief in something not proven). Opinions may be about beliefs, attitudes, or values, although typically they focus upon fairly specific beliefs or preferences. Opinions are often so specific that the exact wording of questions may considerably influence the answers.
14. Free response analysis. "Free responses" occur when one asks questions that do not require choice among prepared alternatives (as required by multiple-choice items or rating scales) but allow the respondent to say what he thinks appropriate in his own words. As early as 75 years ago, free responses were elicited by broad, open-ended value questions (Osborn, 1894), and 25 years ago Bavelas (1942) and Kalhorn (1944) introduced a free response value-study technique that was the direct fore-runner of the Echo method. Few studies were carried out before General Research Corporation began to develop the Echo method; the chief reason for this delay seems to have been the immense labor involved in free response analysis when computer support was not available.
15. Echo classification technique. The value categories in a particular study are induced from the raw responses by a special

Echo classification technique that causes the inherent categories to emerge from the data. (Trained classifiers group responses together that, in their judgment say or mean the same thing; thus a category is formed). Normally, a priori system of categories is not imposed on the data, though, of course, one can be. Once a set of categories has emerged, different classifiers can sort the same responses into the same categories with high reliability.

In some problems "indigenous classifiers" or informants are used. Such indigenous participants are members of the population from which the sample of respondents was chosen. One way of employing indigens is to have them classify the responses; the resulting indigenous classification is compared with a staff classification of the same responses, and appropriate modifications are made in the staff classification. In unfamiliar cultures, indigens may form categories quite differently from the way American staff classifiers form them; in American subcultures, such as the teen-age subculture, indigens may supply special meanings for familiar words (e.g., "bread" used to mean money).

Another way to employing indigens is to submit a complete list of the classified responses to one or more indigenous informants, who then read the list carefully and suggest improvements in category formation or reassignment of misclassified responses. In taking a value sample from professional or management personnel, this technique would be convenient and effective. When the edited list is returned to the investigators,

changes in the original classification can easily be effected and the responses relisted.

In other kinds of problems, the list may be submitted to one or more experts (e.g., school personnel in a study of school children). This exchange of information between investigators and indigens, or between investigators and experts familiar with the indigenous culture, constitutes one meaning of the name Echo.

#### Delimitations

The scope of this investigation is confined to a study of the school districts A, B, and C as representative of the public high school districts in Iowa in the school year 1969-70. The study further excludes all other private, public or parochial schools in Iowa. The responses obtained on the Echo survey are further limited by voluntary participation in each of the school districts cited. The verbatim responses from individuals within these three respective school districts are further limited to the following characteristics:

1. Total years of experience
2. Sex
3. Age
4. Comparisons within school district A to B to C.

#### Sources of Data

Data for this study comes from three primary sources. The first source will be defined as District A. District A has a population of

41,000 and an estimated school enrollment of approximately 6,616. In the high school in which the survey was completed, the enrollment is 1,268. The members of the secondary teaching staff total 74. This school community is a highly academic institution with a major university in its proximity. School district A would generally be regarded as successful, highly academic, and conventional. The second school district is a school district with a population of 10,000 and a school enrollment of 2,608. Its high school has a student enrollment of 500 in grades 10 through 12 with 37 teachers. School district B is regarded as moderately innovative for a school of its size. The third school district, C, is found in a community of 33,000 district population and a school enrollment of 7,797. The secondary school in district C has approximately 1,687 students, and 111 teachers. This school, generally speaking, would be regarded as having a highly innovative program recognized for its attempts to individualize learning. Data about the various school sizes and enrollments were obtained from the Iowa Educational Directory 1969-70 school year, State of Iowa Department of Public Instruction. All remaining data about the school districts were obtained from the communications with the individual school districts.

#### Organization of the Study

The material presented in this study is divided into five chapters. The first chapter includes an introduction to the background and setting of the change process as it affects professional educational personnel in Iowa, a statement of the importance of the administration knowing exactly

how members of the teaching profession feel, a statement of the problems with its basic assumptions, guiding questions and null hypotheses, the purpose of this study, a listing of key terms and their definitions, the sources of data, delimitations, and the scope of this study. The second chapter contains a summary and analysis of related literature and research procedure which was utilized in designing and gathering the material for study discussed in the third chapter. The fourth chapter includes a presentation discussion of the data collected. The fifth and final chapter presents a summary of the findings, conclusions, and recommendations for further study.



## REVIEW OF LITERATURE

The preceding chapter expressed a need to study and analyze teacher values as they are directed toward problems confronting school systems in the process of individualizing learning and to compare school districts at different points of involvement in the change process.

This chapter presents a review of literature and research concerning the desirability of attempting to understand and define teacher values about school related matters. It was felt necessary by this writer that prior to investigating such a study of values it would be important to understand the present educational viewpoints which have been devoted to understanding past, present or future personal value characteristics of individuals in the field of education. While studies of teacher values, interesting enough, have not been as numerous as might be expected, perhaps the best known investigations can be highlighted by placing attention on the following types of study. Specific attention will be focused on the description of the major dimensions of teacher values and reviewing patterns or attitudes held by teachers as determinants of behavior.

It is suggested for the purpose of this study that teacher values may be defined simply as the behavior, or activities, of persons that go about with whatever is required of teachers, particularly those activities which are concerned with the guidance or direction of the learning of others. Consistent with this operational definition, it appears there are two important postulates implied (Ryan, 1960).

1. Teacher behavior is social behavior. An implication is that teacher behavior is social behavior, in addition to the teacher there must be other individuals who are in communication with the teacher and with each other, and who are presumably influenced by the behavior, or inner action, of those involved.

It also further implies that the relation between the teacher behavior and behavior of other individuals be of a reciprocal nature; therefore not only do teachers affect the individual they come in contact with, but that person may influence teacher behavior as well.

2. Teacher behavior is relative. Another implication of our operation definition of teacher behavior is that what a teacher does is a product of social conditioning is relative to the cultural setting in which the teacher teaches. It follows that there is nothing inherently good or bad in any given teacher behavior or set of behaviors. Instead teacher behavior is good or bad, right or wrong, effective or ineffective, only to the extent that such behavior conforms or fails to conform to a particular culture value system (Ryan, 1960).

If good and bad were closely and inversely related, not much would be accomplished by employing both concepts. It appears that good and bad, the logical opposites, are not often opposites on linear dimensions of response, but are either scarcely related or are related in a non-linear fashion. Whenever they are unrelated to one another but are related to the same criterion behavior, the very lack of relationship would be advantageous, because good's and bad's can contribute unique variances to the prediction of the criterion. Good values may be linearly related to one or another; bad values may be similarly related to one another, but the set of good values and the set of bad values are likely to represent orthogonal dimension (Milburn et al., 1968).

In a particularly ingenious and well designed study, Siegel et al.

(1964) found the use of two value dimensions greatly increased the accuracy of their predictions of behavior. A psychologist and two experimentally orientated philosophers raised the question whether monetary losses and gains, "a bad thing and a good thing" that are objectively equal, would also be subjectively equal. They found that for most persons they were not; small losses usually were equivalent to larger gains.

Two other lines of evidence suggest that good and bad will not usually have an inverse linear relation. One line of inquiry derives from the work of industrial psychologists, Herzberg, Mausner, and Snyderman (1959), who asked their interview responders to describe times they felt especially good or especially bad about their jobs; the results have been replicated in a study of male supervisors in a public utility, Schwartz, Jenusaitis and Stark (1963). Herzberg et al. (1959) found that the sources of job satisfaction were independent of and different from sources of dissatisfaction; the two attributes were not merely opposites. They also found that content factors (e.g., that the kinds of problems encountered, self-actualization) tended to be related to satisfaction, whereas contextual factors (e.g. heat, cold, ugliness) tended to be related to dissatisfaction, but that part of the findings may be true for only the professionals and managers.

Bradburn and Caplovitz (1965) in their reports on Happiness discussed the considerable lack of relation between reported sources of positive feeling (affect) and sources of negative feeling. In none of these studies does the mere lack of good's equal something bad or the mere lack of bad's equal something good.

It appears that at least two major assumptions are necessary for a failure teacher behavior to be established:

1. One teacher behavior is a function of situational factors and characteristics of the individual teacher.
2. Teacher behavior is observable.

A verbal model reminiscent of Cattell's (Source) and (Surface) trade description of human personality (Milburn et al., 1968), begins with the general features of:

1. The individual teacher
2. The social situation environment in which individuals function, and precedes through different levels of generality -- from specific conditions to the unique behavior of the teacher in a particular situation.

Miller (1955) described in some detail the intriguing explorations of the general systems theory group with its behavior motto homologous to an electric system and has offered a number of presumably testable theorems or propositions. This would seem to indicate the energy in-put, out-put transfer certainly is not known and we are completely incapable of describing the process, except in terms of inference based upon observable in-puts and observable responses of the teacher.

Other theorists have been particularly concerned with how individuals in a social environment interact and condition one another's behavior, not only in an immediate situation but also in future situations, as a result of the integration of response produced stimuli into the total stimulus pattern.

Sears (1951) suggested, for example, the necessary example of the basic monadic unit of behavior, various learning theories employed into a dyadic one which describes the combined actions of two or more individuals. The proposition that a dyadic is essential for the relationship between people are to be taken into account in theory should impress the teacher behaviorist as being entirely reasonable.

Studies of values focus on various aspects of the concept. Besides such relatively simple characteristics as strength or intensity, specificity -- diffusion, salience, clarity and centrality, values may be studied in combination with other variables, such as time, situation, culture, and role. A study of value preference or requirements for specific roles or situations may have considerable practical interest.

Some contributors to the empirical study of values, e.g., describe value sets (different styles or way of life) in part as sets of means, not as ends.

By contrast, psychologist, R. K. White (1951), would define operationally only those values which appear as ends in that they are themselves not further defined or rationalized.

Philosopher, J. Dewey (1939), restricted the use of the term value to those situations in which value (preferred actions behaviors) led to the outcomes of interest; in other words, means and ends come in sets and both should be preferred for either to be valued.

Other philosophers see the distinction as fairly unimportant, since, in the fabric of historical reality, actions conceived as means are likely to be the ends for some other means, and ends are legitimately considered

means toward other means.

Milburn, Barthol and de Mille (1968) state,

Students of crises recognized that threats of values or valued entities increase the promise of visibility of the threatened values, thus increasing their importance -- at least temporarily. Values "temporarily" prominent on agendas during crises may as a result of those actions or of commitments calling for action become permanently prominent after the crises have passed.

This particularly could answer some of the innovation dilemmas that are affecting the change process in education. Yet, the field of education has had no real mechanism for planned change. Granted, change does occur and some individuals do seem able to effect almost monumental innovations which exhibit creative thinking and which allow for continued problem solutions. But unfortunately, such change often seems serendipitous, not scientific. Many individuals are unable to tell others how they achieve successful results.

Recently, M. Rokeach (1968) making a strong case for the utility of the study of values, developed two rank-orderable scales of values (instrumental and consummatory) which emphasize their means-ends distinction. Rokeach in a sense "validated" his value scale by collecting data to show that values are superordinate, or prepotent over less general, more specific attitudes as he has predicted. He related values to one another in terms of rank-order scale of preference of attributes of persons and behaviors.

Krech and Crutchfield (1948) indicated that values, attitudes and beliefs in part determine what will be seen as alternatives for the solution of the problems. This study said also that new data although not

available to an individual, but contradictory to his beliefs and attitudes may not even be perceived; or once perceived, may be more readily forgotten. Disvalued sources of information may be forgotten when the information is still remembered.

Research has shown that new information has its meaning determined in a large part by the existing structure of values, attitudes, and beliefs. Ultimately its acceptability or at least its initial acceptability depends in a large part on the perceived strength, goodness, and credibility of authorities who are seen as sources. (Krech and Crutchfield, 1948)

Values, research has proved, can be predictors for behavior. For example, much of the time people do what they like, choosing behavior they value; or they do what is socially required, behaving according to social norms. Although these two kinds of behavior can be identical, this is not always necessarily so. Given behavior can be both positive and negative or be neutral, self or social value or any combination. It appears that more predictable behavior is more likely when individual preferences in social norms converge, giving rise to the same behaviors.

Research has further shown that there is no simple relationship that exists between values and behaviors. Often times a given value may underline many different behaviors, and a given behavior may arrive from many different values.

Allport (1924) provided a classic example of the "J" curve of behavior (some behaviors are performed by almost everyone in a society). His illustration was stopping at a stop-sign -- a behavior which the value theory can explain. However, the explanations are likely too multiple and competing, and therefore of little merit. Although many

values may be relevant (safety, conformity, respect for law and order, convenience, etc.), forces other than values tend to be overriding. Even in this context, however, a knowledge of values could be useful for predicting behavior; when contextual factors which are not yet known, or a thorough knowledge of values allows the investigator an opportunity to estimate which factors are relevant and to seek information about these only, rather than all possible factors.

For example, if we were to use the stop-sign behavior as a paradigm, one might wish to predict behavior at newly installed stop signs in two different countries. In this way, we could determine if the values in country A are high for courtesy, respect for law, respect for rights of others, and conformity; or the researcher may need only learn whether drivers stop at already existing signs to predict J curve behavior. If, on the other hand, the values of the drivers of country B are for independence, self-interest, laissez-faire, and machismo, then additional information would be needed: this information would probably include a history of law enforcement, attitudes toward police, knowledge of police surveillance by drivers, the location of the stop sign, etc. (Allport, 1924)

It was felt that in order to understand better and to develop programs of individualized learning, it would be important to be able to predict the values of an individual accurately and more importantly, knowing how that person perceived attitudes of his peers and administrators. If this individual believed the value expected would be desirable, and he also desired it, then this value should appear more often because it will be at least twice rewarded; extrinsically by peers or administrators and intrinsically by task and self. However, if the value or attitude desired will be opposed by peers or administrators, then the appearance of these values will depend on the subjective probability



of being caught, the type of punishment, and the person's attitude toward his peers or administrators.

Strangely, a number of studies, as well as clinical experiences, indicate that the strength of guilt feelings does not predict resistance to temptations as found by Hartshorne and May (1929); Mills (1958); Allinsmith (1960); Burton (1959); Sears, Race and Alpert (1963). This basically applied some of Abelson's psycho-logic to the situation. Abelson (1959) argued that the rules of psycho-logic would apply to situations where large Ss (subject) were conscious of difficulties.

A study found that Rokeach (1968) means (instrumental values) differentiate between college men and women far more readily than did ends (terminal values), suggesting that terminal values are more general and less sex-role related than are instrumental values.

Rokeach, instrumental values, look like "good-to-do" or "good-to-happen" items in the ECHO format which are reflected in this study.

Rokeach does not consider negative values, nor does he include the analytic categories relating to perceive antecedent sources and the consequent effects of value behavior. In addition, Rokeach omits the distinction between duty (ought-to-do) and desire (like-to-do), an important topic in philosophical writing about values.

Like other scientific concepts, values may be used to explain and relate diverse behaviors. It is also feasible to assume they may play a central role in a decision making process, but their effect will be modified by information, beliefs, and the estimates of probabilities that certain events will occur, or the conditional probabilities that these

events will occur only under certain conditions. It further seems important to assume that values play a central role whenever the person makes a rational choice or selection, although these may be less important where behavior is already determined by policy, custom, habit, neurosis or reflex.

Milburn et al. (1968) stated values or attitudes may thus contribute significantly to each phase of the decision making process. It would seem that once the problem appeared to be significant, the presence of obstacles preventing the achievement of solutions to these problems could be more effectively attained if one understood the values that were affecting the problems. A strong emphasis on the role of values has been the primary choice itself, yet values are not the only determinate. Information, beliefs, and estimates of probabilities are associated in the decision maker's mind with each alternative, along with conditional probabilities that other events will occur, given certain apparently developing sets of events. For example, most scientific hypocrisies are based on conditional probabilities.

Another study by Pittel and Mendelsohn (1966) demonstrates that strength of moral values counter resistant to temptation and prone to give projective guilt responses are coverant of their subculture. They positively value these authorities as both good and powerful. Guilt feelings sometimes follow the performance of a socially disapproved act when preference for an object or a behavior, which has been strong, declines markedly on consummation.

It appears that reinforcement of a valued behavior is the most

effective way of increasing the attractiveness of that behavior or the probability that behavior will be elicited again is a major reason to understand better what the values are of the people involved in the activity.

If an environment can be created, or at least reflects an awareness of certain values, then reinforcing certain desirable behaviors may be planned to see they appear often.

It is further apparent, the behavior or value an individual displays, may rely heavily on the ability of an administration to perceive accurately the values individuals choose or select.

Festinger (1957) hypothesized the poor signal reduction of cognitive dissonance which indicated that after a strong desire has been satisfied, the perceived worth of the action may decline for some persons, who are then beset by guilt. It appears that even though a person understands that an authority figure in his world sees a certain behavior as desirable, an individual may still act as he prefers. For example, in some situations, the behavioral norms or attitudes may call for an aggressive behavior, but if aggressive acts are disvalued, they are less likely to be carried out by that individual.

It was further observed that peers and authority figures who are perceived as sources of praise or blame may also be seen as causes of the good and bad things that can happen; a person is more likely to conform to the norms of a subculture he positively values, whose authorities are viewed as both good and powerful.

Psychologist D. Premack (1959) detected an interesting relationship

in an hierarchy observed values (i.e., reinforcing stimuli). This indicated a given behavior or an organism value could either reward or punish the organism, depending on whether the behavior led to more highly valued or less highly valued behavior. This is similar to the behavior identified by the label "functional autonomy". If the behavior elicits and reinforces certain behaviors, generally these behaviors will appear more frequently. When reinforcement of behavior occurs, it will produce a considerable effort on the part of the individual to achieve the value conditioner or behavior that the environment is trying hard to produce. Premack (1959) and Festinger (1957) found for many people the stimuli they choose or behavior they elect in situations of choice afterwards become more valued; those they did not choose become less valued. They further found this shift in values tended to reduce the feeling of discomfort or regret when the various possible alternatives were reviewed.

The change in preferred behaviors may occur also due to respect for an authority presenting argument or evidence; this is most often reflected in situations where there are people in dynamic leadership positions. Those in positions of authority may exert their influence either at preferential level of individuals for belief preferences as well as behavior preferences. It is safe to assume the authority figure within an organization plays a major role in the legitimation of production norms or those values associated with moral (interpersonal) behaviors not merely because they monitor distribution of information. Experiments comparing the performance of various types of leadership styles have shown that in some situations each is successful in various situations (Festinger, 1957).

From readings, one gathers there is no one study which illustrates beyond a shadow of a doubt that one type of leadership style is always superior to or more effective than all others. The most comfortable position found in reading the various research articles is that different tasks call for a different kind of leadership and that the leadership responsibilities will be situational rather than blanket generalizations. Often times individuals fail to distinguish style and leadership behavior. Leadership behavior refers to the specific acts in which the leader engages while directing or coordinating the work of his group. For example, a leader can praise or criticize, make helpful suggestions, show consideration for the welfare and feelings of the members of his group. Leadership style refers to the underlying needs of the leader that motivate his behavior. In other words, in addition to performing the task, what a person needs is a leader attempting to satisfy a concern. It was often found that a leader's actions or behavior sometimes does not change as the situation or group changes, but its basic needs appear to remain constant. This being the case, it becomes extremely important for those in leadership positions to understand the values and needs of the people with whom they work.

A technique for studying patterns of social values in relation to sources of reinforcement was introduced by Bavelas (1942), who proposed its application to a variety of research problems. In its simplest form, the technique consisted of asking the respondent two questions: "What is a good thing that a person like you could do and be praised for doing it?" and "Who could do the praising?" The questions are repeated several times

eliciting a variety of responses. A second set of questions involving a bad thing for which someone could be scolded, "was applied in the same way." The resulting response was thought to reflect social values in their respective sources of reinforcement according to the subjective schemata of group members. The purpose of this Bavelas Technique was to generate reliable, culturally unbiased information about the prevalent value hierarchy in related influence structures in any selected population. One major benefit from such information would be to provide better communication between groups. It certainly is a truism that dissension is going to be caused by a breakdown of communications between groups or meliorated by improvement of communications. Effective communication, however, requires some understanding of the social organization of value hierarchy and the other group. Generally in the past, our understanding of special groups or subcultures has depended largely on the opinions of the experts, supplemented in some cases by public opinion polls.

Malcolm W. Warren (1969) suggested before we can attempt to change behavior, the required behavior must be known and the means to measure the change of behavior must be found. Until these two constraints are satisfied, the effectiveness of any change programs cannot be known and the functional utility becomes guesswork. He felt behavior could be divided into:

1. Change of skills
2. Change of knowledge
3. Change of attitude.

### Related Studies

A study at the University of Pittsburgh by Heddendorf (1969) found that professional education programs did produce a significant change in the attitude of the teacher in knowledge of professional methods, but not in his professional skills, image, or spirit. He further found that persons who reflect the values of the education profession are also similar in background and personality. They are more loyal to traditional values and tend to be more conservative.

Weick (1969) drew a theoretical reference from literature which suggested that values, their relationship to perception, and certain personal background characteristics as factors of influence on values were relevant to increased understanding of human behavior. This awareness was viewed as important in staff management and assignment.

An analysis of attitudes of administrators and teachers toward school policies in selected public junior colleges in Alabama by Fendlason (1969) revealed significant differences at the .05 level when teachers and administrators were grouped by academic and applied categories.

Wilson (1969) concluded in a study that age, teaching level, total years of experience were not important factors in determining teacher attitudes toward collective action toward community involvement. He further found a significant difference in the attitude of male and female teachers.

An investigation of alternatives to improve attitudes of junior high school staff members toward vocational education in the high school revealed the importance of considering the self-concept image held by the

vocational staff members at the senior high school. Conroy (1969) also indicated this concept factor was extremely important in initiating a cooperative plan for change.

Aoki (1969) utilized Amidon's study of attitude and behavior change of open and closed minded pre-service teacher as a departure point to survey social studies' teacher candidates at the University of Alberta. He found that specific instruction about teaching confrontations may be related to differences found in change of attitude toward the teaching profession.

Attitudes toward the relative importance of in-service education were found to change when teachers became more involved in a personal way with in-service education (Bond, 1969).

Workshops may properly be considered as a sensitivity-training experience if interpersonal relations are emphasized. This involvement can affect a change in the attitude of teachers toward a democratic school climate (Tobin, 1969).

To summarize, the following statements are paraphrased from the authors of the Echo method about their premises (Milburn, Barthol and de Mille, 1968). These statements emerge as the guidelines that appeared in this review of literature.

I Premise: Values are arranged hierarchically for individuals or groups.

1. Higher ranking values will outweigh lower ones when choices involved are relevant to both.
2. The ordering of values may predict attitudes.



3. Changes in the skills, talents or capacities of a group will be the best single predictor of changes in value orderings.
4. Changes in the incentive structure within an organization will be the next most effective predictor of changed value orderings.
5. Women who are comfortable in roles subordinate to men and who perform well there will have different value orderings, but not necessarily different values, than women without such tendencies or inclinations.
6. Values are cognitive and are influenced by affect.
7. Values considered as essential will be higher in a value hierarchy than those values regarded as less essential.
8. Values which are regarded as important to the continuance of a group or individual will tend to stand high in rank though less high than ones seen as essential.
9. The higher the values in the value hierarchy the more resistant an individual is to change.
10. Higher values can more effectively change lower values than conversely.
11. If two groups have like values, with different priorities, the groups will tend to be incompatible.
12. Events representing end values high on the value hierarchy tend to reinforce those behaviors perceived as necessary for their occurrences.
13. Values not realized will motivate behavior strongly even when low in the value hierarchy.

II Premise: Although values tend to have either a prescriptive quality (ought to do) or a desired quality (like to do), the two qualities are strongly related. (Milburn et al., 1968)

14. When behavior is perceived as causing conflict between prescriptions and preferences, the occurrences of such behavior will diminish.
15. Prescriptions and preferences will tend to be in harmony.
16. Concurrence between preferred and prescribed behavior will increase the probability that such behavior will happen.
17. If group values support organizational goals, workers will place higher value on their jobs.

III Premise: Values are more general than attitudes. (Milburn et al., 1968)

18. Values will show wider predictive applicability than attitudes.

IV Premise: Hierarchical value orderings can be used to determine various behaviors among groups. (Milburn et al., 1968)

19. Learning and internalizing new adult roles will typically involve shifts in both the rank ordering and the appearance or disappearance of other values.
20. Knowing the strengths and weaknesses of a group or organization, values and value orderings will predict preferences for persons, activities, and effectiveness.
21. Family perceptions will correlate more closely with value orderings than with the presence or absence of values.
22. Value categories that appear to be unique for a group whose

value ordering otherwise resembles those of other groups may be used to predict behaviors of the other group.

23. Differences in value ordering between parents and their children will create a generation gap.
24. People generally value the approval of others, but the rank of this value will vary within and between groups.
25. Groups that get along well and like one another in spite of different values will tend to be adaptable and creative.
26. Similar group value orderings will predict compatibility more accurately than will content, beliefs, or similarities.
27. Value orderings will distinguish creative from conforming and non-creative groups.
28. Two groups with different value orderings will tend to find communication difficult.
29. If two groups have similar value hierarchies, the more homogeneous group will show higher morale values.
30. Shared value orderings play a larger role in predicting friendship or compatibility than values themselves.

V Premise: Values affect and are affected by crisis and stress situations. (Milburn et al., 1968)

31. Crises will temporarily increase the visibility of certain levels of hierarchical values.
32. Long-term or severe crises will tend to change value orderings indefinitely.

33. Threats to particular values serve to heighten the prominence of those values.
34. When information is ambiguous or inadequate, values are easily influenced.
35. When there is no information, values alone may serve to provide reactions to stress situations.

## METHODS AND PROCEDURES

### Introduction

The intent of this study is an attempt to determine and test how teachers perceive their role in a school system and to determine if there is a difference in values of teachers in schools involved at various stages in a change process. If we were able to determine a way in which to obtain teachers' values and test whether there really is a difference in values of teachers due to age, sex or experience, in different educational environment, then it would be possible to meet more effectively the needs of the teacher considering the change process necessary to individualize learning.

This chapter describes methods and procedures that were used to gather and analyze the required data for the study. The chapter has been divided into four parts:

1. Design of the instrument
2. Selection of the sample
3. Collection of the data
4. Treatment of the data

### Design and Selection of the Instrument

Following a review of existing tests and surveys (Amidon and Flanders, 1967; Allport, Vernon and Lindzey, 1960; Stern, 1964) and considering developing a new survey, it was decided to search further until a more effective way to gather teacher values could be obtained.

Finally after reading an advertisement in the School Management Magazine, May 1970, and receiving additional information, it was possible to consider the project ECHO, developed by Motivational Sciences, a general research company. After corresponding with the director of Motivational Sciences, Dr. Marks, this writer arranged a conference to determine exactly the needs of this particular study and to specifically draw up a survey which would produce the wanted value responses. Based on the information made available by the consultant, and after carefully studying the ECHO methods, survey forms were developed for three carefully selected school districts (see Appendix).

#### Selection of the Sample

Motivational Science indicated the ECHO Free Response could obtain accurate feelings of individuals, or groups of individuals, and allow a broad net to be cast that would gather in the most characteristic ideas and values held by the people involved in the survey, by allowing the respondents to say what they think appropriate in their own words. Combining many years of scientific development, Motivational Science further provided computer programming which would allow the information to be gathered, analyzed and reported quickly and economically to individuals desiring meaningful results.

It was decided to include in this study three schools which would be representative of various levels of involvement in the change process as perceived by this writer. These schools would further represent both middle and large school characteristics. The selection of these three

schools was determined following consideration, not only by other educators in the state and members in the Department of Educational Administration at Iowa State University, but also by teachers contacted at random. After contacting the various building principals and thoroughly discussing their present educational structure and intentions for the school year 1969-1970, it was decided that the three schools selected would be representative of many other school districts at various stages of the change process.

School District A

Type of organization	K-6-3-3
District population	41,000
Enrollment total	6,616
Enrollment in grades 10-12	1,268
Certified personnel 10-12	74
NCA approved	
Academic orientated and conventional	

School District B

Type of organization	K-6-3-3
District population	10,000
Enrollment total	2,608
Enrollment in grades 10-12	500
Certified personnel 10-12	37
Not NCA approved	
Moderately innovative	

School District C

Type of organization	K-6-3-3
District population	33,000
Enrollment total	7,797
Enrollment in grades 10-12	1,687
Certified personnel 10-12	111
NCA approved	
Highly innovative	

Each of the districts contacted was then allowed an opportunity to discuss with appropriate school officials in their districts their involvement in such a study. It was decided it would be a voluntary arrangement at the conclusion of the school year in June 1970, which would allow those interested in the school district selected to respond with the understanding:

1. The building principal would receive a print-out of written verbatim responses in order that he could utilize the information as he so desired.
2. The individuals responding would not be identified.
3. Data would be coded in order that it could be presented without identifying the respective school.

## Collection of the Data

Information about the three school districts and personnel employed by the districts was obtained from two main sources. Data regarding the size of the school district and the number of personnel employed by the



school district were obtained from the Educational Directory, published by the State of Iowa Department of Public Instruction, for the school year 1969-1970. Data relative to the indigenous questions in the survey were obtained voluntarily from those participating. Further information was obtained from the building principal in the event he elected.

The following indigenous information was solicited voluntarily from all individuals who participated in the survey. Teachers were asked to indicate their

1. Sex
2. Marital status
3. Major teaching assignment
4. Number of children
5. Age
6. Number of years as a teacher
7. Number of years in this district

This information was further broken down into classifications of age

Y equals 30 or less

O equals 31 or over

Experience information was broken down as follows:

1. Inexperienced  
1 to 10 years
2. Experienced  
11 years or more

The other areas were self-explanatory from the respondent. The above

indigenous characteristics would allow this writer to pin-point more effectively the written responses expressed by a study of the above categories. (See Appendix)

#### Treatment of the Data

The data received from the three selected school districts for the school year 1969-70 were first classified by trained classifiers at

Motivational Sciences  
 A General Research Company  
 5383 Hollister Avenue, Santa Barbara, California 93105  
 30441 Morningview Drive, Malibu, California 90265

into general areas of value concerns. This information was recorded on common code sheets and transferred to International Business Machines (IBM) cards. Frequency counts and percentage analysis on those of value concern were then run by computer programming for each school on the basis of the indigenous information available about the teachers within that system. Chi square analysis and a z test were also computer programmed to test the null hypotheses generated in chapter one. The facilities of the Motivational Sciences Computer Center, as well as those of the computation center at Iowa State University, were utilized in these computations.

The following tests were utilized:

- 1) Chi Square. (Snedecor and Cochran, 1967)

$$\text{Chi Square} = \frac{\sum(f-F)^2}{F}$$

f = Observed frequencies in a category

F = Expected frequencies in a category

- 2) Test of means of the normal deviate  $z$ . (Snedecor and Cochran, 1967)

$$z = \frac{P_1 - P_2}{\sqrt{PQ\left(\frac{1}{N_1} + \frac{1}{N_2}\right)}}$$

$P_1$  = Proportion of one group represented in the category

$P_2$  = Proportion of the other group represented in the category

$N_1$  = Number of respondents in first group

$N_2$  = Number of respondents in second group

$$P = \frac{N_1 P_1 + N_2 P_2}{N_1 + N_2}$$

$$Q = 1 - P$$

## SCHOOL DESCRIPTIONS AND FINDINGS

This chapter contains sections relating to a description of the school populations survey and to the two basic questions which generated a statement of the four hypotheses presented in the Introduction chapter.

The findings will be illustrated using both a general resume and a tabular presentation. There will be no attempt to reach conclusions in this chapter.

## Description of School Populations

The following general school characteristics served as guidelines for their selection in this study:

## SCHOOL DISTRICT A (Conventional)

Type of organization	K-6-3-3
District population	41,000
Enrollment total	6,616
Enrollment in grades 10-12	1,268
Certified personnel 10-12	75
NCA approved	

## SCHOOL DISTRICT B (Moderately Innovative)

Type of organization	K-6-3-3
District population	10,000
Enrollment total	2,608
Enrollment in grades 10-12	500
Certified personnel 10-12	45
Not NCA approved	

## SCHOOL DISTRICT C (Highly Innovative)

Type of organization	K-6-3-3
District population	33,000
Enrollment total	7,797
Enrollment in grades 10-12	1,687
Certified personnel 10-12	111
NCA approved	

A study of Tables 1, 2 and 3 shows a three-way classification of the three schools described above when categorized by sex, age and experience. In each of the tables a frequency and a percentage of the number of staff members reflected by each of these characteristics will be shown.

The following classifications should be examined prior to analyzing these data:

Sex	= Male
	= Female
Age	= Younger - 30 years or younger
	= Older - 31 years or older
Years of Experience	= Inexperience - 10 years or less
	= Experience - 11 years or more

An incomplete response was recorded in any situation where a respondent failed to provide the specific information to all three categories of age, sex and experience.

Table 1. Composite staff characteristics of School A (conventional)

	<u>Younger</u>		<u>Older</u>	
	<u>Inexpe- rienced</u>	<u>Expe- rienced</u>	<u>Inexpe- rienced</u>	<u>Expe- rienced</u>
			<u>Male</u>	
Total frequencies	4	1	7	10
Total percentage	11.1	2.8	19.4	27.8
			<u>Female</u>	
Total frequencies	7	0	4	3
Total percentage	19.5	0	11.1	8.3

Table 2. Composite staff characteristics of School B (moderately innovative)

	<u>Younger</u>		<u>Older</u>	
	<u>Inexpe- rienced</u>	<u>Expe- rienced</u>	<u>Inexpe- rienced</u>	<u>Expe- rienced</u>
			<u>Male</u>	
Total frequencies	3	0	1	6
Total percentage	20	0	6.6	40
			<u>Female</u>	
Total frequencies	5	0	0	0
Total percentage	33.4	0	0	0

Table 3. Composite staff characteristics of School C (highly innovative)

	Younger		Older	
	Inexpe- rienced	Expe- rienced	Inexpe- rienced	Expe- rienced
			<u>Male</u>	
Total frequencies	9	1	15	16
Total percentage	17.3	1.9	28.9	30.8
			<u>Female</u>	
Total frequencies	5	0	2	4
Total percentage	9.6	0	3.8	7.7

### Test of Hypotheses

The assumptions in Chapter One lead to the following two basic questions:

1. Is there a significant difference in teacher values among schools categorized at different levels of involvement in the individualized learning process?
2. Is there a significant difference between teacher values when teachers are categorized by sex, age and years of experience?

These two questions provided the reference point for generating the following hypotheses:

1. There is no significant difference in teacher values among schools categorized at different levels of involvement in the individualized learning process.
2. There is no significant difference in teacher values when teachers are categorized by sex.
3. There is no significant difference in teacher values when

teachers are categorized by age.

4. There is no significant difference in teacher values when teachers are categorized by years of experience.

The first hypothesis tested was that there is no significant difference in teacher values among schools categorized at different levels of involvement in the individualized learning process.

General observations reveal that School A is more concerned about curriculum instruction, resources and to a lesser degree about order and discipline than either School B or C.

School B and C place greater emphasis on order, discipline and teacher morale within the school than does School A.

However, School C also reflects an awareness to utilize school resources more effectively.

Not as obvious, but still present were the following concerns:

SCHOOL A - Plant and equipment needs, use of teachers, need for a schedule change, better counseling services and better attendance to class.

SCHOOL B - Stressed the importance of better student dress guidelines, the need to involve parents more extensively, better faculty meetings, and more emphasis on the academic activities.

SCHOOL C - Expressed concern about more effective ways to motivate students, develop school spirit, more respect for school traditions and more effective use of time by students.

An analysis of Table 4 will provide the frequencies and percentages



Table 4. The frequencies and percentages of faculty responses in Schools A, B, C when classified by categories

	School					
	A		B		C	
	Freq.	%	Freq.	%	Freq.	%
Improve plant and equipment	13	28.9	4	14.8	20	26.3
Curriculum improvement	14	31.1	5	18.5	10	13.2
More efficient use of teachers	11	24.4	5	18.5	12	15.8
Schedule changed	11	24.4	6	22.2	8	10.5
Administration-faculty unity	3	6.7	8	29.6	4	18.4
Students motivated to learn	2	4.4	5	18.5	17	22.4
More student-teacher contact	7	15.6	3	11.1	14	18.4
Better administrative procedures	9	20.0	2	7.4	11	14.5
Respect and tolerance	3	6.7	2	7.4	16	21.1
Faculty unity	3	6.7	5	18.5	13	17.1
Proper dress	5	11.1	8	29.6	6	7.9
Better attendance	1	2.2	6	22.2	12	15.8
Better counseling	11	24.4	2	7.4	6	7.9
School spirit and pride	2	4.4	1	3.7	15	19.7
Student leadership and activities	7	15.6	1	3.7	10	13.2
Less student loafing	3	6.7	1	3.7	13	17.1
Individualize schedules	5	11.1	4	14.8	8	10.5
Emphasis on academics and culture	8	17.8	4	14.8	2	2.6
Change grading system	6	13.3	2	7.4	5	6.6
Parents involved	2	4.4	8	29.6	2	2.6
More vocational training	5	11.1	2	7.4	5	6.6
Faculty self-improvement	4	8.9	3	11.1	5	6.6
Better meetings	3	6.7	7	25.9	2	2.6
Interdepartmental communication	4	8.9	4	14.8	3	3.9
More structured time	0	0.0	5	18.5	5	6.6
Independent study	3	6.7	2	7.4	4	5.3
Professionalism	0	0.0	3	11.1	6	7.9

Table 4. Continued

	School					
	A		B		C	
	Freq.	%	Freq.	%	Freq.	%
Individualized instruction	0	0.0	1	3.7	7	9.2
Miscellany	13	28.9	11	40.7	32	42.1

of responses necessary to examine the first hypothesis.

Table 5 reveals the probabilities of categorized value responses by staff member when comparing schools with each other using the Z test.

When School A was compared with B, four categories showed similarities: Students more conscious of better attendance habits, the need to have more school-parent involvement, more structured time with students and teachers, and greater emphasis placed on administration-faculty unity. Each of these categories were found to be significant at the .01 level. Significant differences at the .05 level were need for a dress code, better meetings, more professionalism displayed in school settings, and more extensive effort to create a climate where students would become motivated to learn on their own.

Comparing School A with C revealed that School A teachers were concerned about motivating students to learn and expressed a feeling that more emphasis should be placed on academic and cultural experiences. These were significant at the .01 level.

The following areas were significant at the .05 level when comparing similarities of School A with C. School A placed more emphasis on:

Table 5. The probability of categorized responses being drawn from a single population when tabulated comparing schools

Category	Schools		
	A/B	A/C	B/C
Order, discipline, respect for property	.695	.085	.302
Improve plant and equipment	.173	.756	.225
Curriculum improvement	.240	.017*	.503
More efficient use of teachers	.560	.244	.745
Schedule changed	.831	.042*	.127
Administration-Faculty unity	.009**	.073	.222
Students motivated to learn	.050*	.009**	.671
More student-teacher contact	.593	.694	.380
Better administrative procedures	.150	.431	.340
Respect and tolerance	.910	.036*	.108
Faculty unity	.123	.103	.869
Proper dress	.048*	.554	.005**
Better attendance	.006**	.020*	.452
Better counseling	.069	.012*	.934
School spirit and pride	.885	.019*	.048*
Student leadership and activities	.120	.714	.170
Less student loafing	.591	.103	.081
Individualize schedules	.646	.918	.549
Emphasis on academics and culture	.741	.003**	.020*
Change grading system	.440	.215	.887
Parents involved	.003**	.590	.000**
More vocational training	.608	.385	.887
Faculty self-improvement	.760	.642	.453
Better meetings	.023*	.273	.000**
Interdepartmental communication	.441	.254	.053

\* Significant difference at the .05 level.

\*\* Significant difference at the .01 level.

Table 5. Continued

Category	Schools		
	A/B	A/C	B/C
More structured time	.003**	.078	.073
Independent study	.910	.751	.690
Professionalism	.022*	.053	.613
Individualized instruction	.194	.036*	.359
Miscellany	.304	.147	.899

curriculum improvement, schedule reorganization, respect and tolerance for individual and school activities, attending class, establishing pride in school activities, the counseling center becoming more involved in total school program, and greater efforts on the part of the administration and staff to create more ways to individualize instruction for all students.

In comparing School B with C, it was noted there were three categories significant at the .01 level. The moderately innovative School B preferred that more attention be given to the way students dress and to creating more ways to involve the parents in school activities.

School C differed significantly from A and B in two ways: teacher concern for the areas of pride and school spirit, and more awareness on the part of the school community on academic and cultural activities.

From this information, it appears that this hypothesis, "there is no significant difference of teacher values among schools," can be rejected.

Further analysis of teacher responses categorized by sex, age, and experience is contained in Table 6. These items reinforce the data reported in Table 4.

Table 6. The frequencies and percentages of faculty responses within Schools A, B, C when classified by category

Category index and title	School A					
	M	F	Younger	Older	Inexpe- rienced	Experi- enced
Order, discipline, respect for property	10	2	3	8	4	9
Improve plant and equipment	7	5	4	6	7	5
Curriculum improvement	7	6	5	6	8	5
More efficient use of teachers	6	4	2	6	8	2
Schedule changed	6	5	2	6	7	3
Administration-faculty unity	1	2	-	3	3	-
Students motivated to learn	0	1	-	1	-	2
More student-teacher contact	-	-	-	-	-	-
Better administrative procedures	7	-	1	5	3	4
Respect and tolerance	0	2	-	1	1	2
Faculty unity	3	-	1	2	2	1
Proper dress	5	-	1	3	2	3
Better attendance	1	-	-	1	-	1
Better counseling	5	6	6	3	9	2
School spirit and pride	2	-	-	1	1	1
Student leadership and activities	3	4	1	5	3	4
Less student loafing	2	1	-	2	1	1
Individualize schedules	2	4	4	2	5	1
Emphasis on academics and culture	6	2	2	5	5	2
Change grading system	2	4	2	4	6	-
Parents involved	1	1	-	2	1	1
More vocational training	2	3	2	1	3	2
Faculty self-improvement	3	1	1	3	3	1
Better meetings	2	1	2	-	2	-
Interdepartmental communication	2	2	1	3	3	1
More structured time	-	-	-	-	-	-
Independent study	1	1	-	2	1	1
Professionalism	-	-	-	-	-	-
Individualized instruction	-	-	-	-	-	-
Miscellany	10	2	3	7	7	5

School B						School C					
M	F	Younger	Older	Inexperienced	Experienced	M	F	Younger	Older	Inexperienced	Experienced
3	2	4	-	4	1	20	7	3	23	11	16
2	1	2	-	2	1	15	3	7	9	11	6
4	1	2	3	3	2	6	3	3	6	6	3
4	-	-	2	1	3	9	3	7	5	8	4
4	1	2	3	2	3	4	3	2	4	6	1
2	2	2	-	4	-	8	4	4	8	8	4
-	-	-	2	1	2	6	8	8	5	9	4
7	2	2	6	2	2	1	-	-	1	-	1
1	-	1	1	-	3	6	5	2	8	4	7
2	3	4	5	5	-	9	4	4	8	9	3
7	-	1	-	3	4	3	2	1	3	2	2
3	-	-	1	1	2	7	2	3	5	5	3
1	-	-	-	1	-	5	1	2	4	4	2
1	-	-	2	1	-	7	3	2	7	5	5
3	-	-	2	2	1	6	2	4	6	5	4
2	-	-	2	1	1	2	-	-	3	6	2
2	1	2	1	4	2	1	3	3	1	2	1
1	1	1	-	2	2	5	2	1	2	4	1
-	1	1	-	1	-	3	2	3	2	4	1
1	1	1	1	1	1	5	1	1	4	4	1
4	1	3	1	4	1	1	-	-	1	4	-
2	1	-	1	1	2	2	1	1	2	2	1
2	-	-	1	1	2	4	1	1	4	2	2
2	1	1	1	1	1	4	1	3	1	2	1
1	1	2	1	1	1	3	1	1	4	2	1
1	1	2	-	2	-	6	1	3	4	6	3
5	3	4	2	6	2	19	9	9	17	14	13

The second hypothesis tested was that of no difference in teacher values when teachers are categorized by sex. The frequencies and percentages to test hypothesis Number Two are presented in Table 7.

An examination of these data indicated that male teachers are more concerned about administrative procedures and proper dress while female teachers were more interested in motivating students to assume the responsibility for their own learning.

Table 7. The frequencies and percentages of faculty responses in School A, B, and C when categorized by sex

	Male		Female	
	Fre- quencies	%	Fre- quencies	%
Order, discipline, respect for property	33	38.8	11	26.8
Improve plant and equipment	24	28.2	9	22.0
Curriculum improvement	17	20.0	10	24.4
More efficient use of teachers	19	22.4	7	17.1
Schedule changed	14	16.5	9	22.0
Administration-faculty unity	12	14.1	8	19.5
Students motivated to learn	8	9.4	11	26.8
More student-teacher contact	16	18.8	6	14.6
Better administrative procedures	15	17.6	2	4.9
Respect and tolerance	8	9.4	7	17.1
Faculty unity	14	16.5	7	17.1
Proper dress	15	17.6	2	4.9
Better attendance	11	12.9	3	7.3
Better counseling	11	12.9	8	19.5
School spirit and pride	8	9.4	5	12.2
Student leadership and activities	13	15.3	4	9.8
Less student loafing	11	12.9	4	9.8

Table 7. Continued

	Male		Female	
	Fre- quencies	%	Fre- quencies	%
Individualize schedules	11	12.9	5	12.2
Emphasis on academics and culture	9	10.6	2	4.9
Change grading system	8	9.4	5	12.2
Parents involved	5	5.9	4	9.8
More vocational training	5	5.9	6	14.6
Faculty self-improvement	9	10.6	1	2.4
Better meetings	7	8.2	2	4.9
Interdepartmental communication	6	7.1	4	9.8
More structured time	6	7.1	0	0.0
Independent study	5	5.9	3	7.3
Professionalism	4	4.7	2	4.9
Individualized instruction	7	8.2	1	2.4
Miscellany	34	40.0	14	34.1

Table 8 contains the probabilities calculated by the Z test on value data categorized by sex.

Rejection of the hypothesis, "No difference by sex," failed except for the following three categories at the .01 level: More males were concerned about better administrative procedures and proper dress than females; females placed greater emphasis on the necessity to motivate students more effectively to learn than did their male counterparts.

The third hypothesis to be tested was that there is no significant difference in teacher values when categorized by age. Table 9 reflects the frequencies and percentages of faculty responses by age -- either



Table 8. The probability of categorized responses being drawn from a single population when tabulated by sex

	Male/Female
Order, discipline, respect for property	.185
Improve plant and equipment	.458
Curriculum improvement	.573
More efficient use of teachers	.491
Schedule changed	.454
Administration-faculty unity	.437
Students motivated to learn	.011*
More student-teacher contact	.560
Better administrative procedures	.050*
Respect and tolerance	.211
Faculty unity	.933
Proper dress	.050*
Better attendance	.348
Better counseling	.332
School spirit and pride	.628
Student leadership and activities	.397
Less student loafing	.614
Individualize schedules	.912
Emphasis on academics and culture	.289
Change grading system	.628
Parents involved	.427
More vocational training	.105
Faculty self-improvement	.111
Better meetings	.500
Interdepartmental communication	.600
More structured time	.080
<u>Independent study</u>	.763

\* Significant difference at the .05 level.

Table 8. Continued

	Male/Female
Professionalism	.961
Individualized instruction	.210
Miscellany	.523

younger, 30 years or under; or older, 31 years and above.

Generally speaking younger teachers appeared more concerned about facilities, faculty unity, better counseling, better vocational training offerings, and better faculty and departmental meetings. The older teacher generally favored more stringent rules as they apply to enforcing school procedures and uniformity in applying school discipline.

Table 9. The frequencies and percentages of faculty responses in Schools A, B, C when categorized by age

	<u>Younger</u>		<u>Older</u>	
	Fre- quencies	%	Fre- quencies	%
Order, discipline, respect for property	9	26.5	29	42.0
Improve plant and equipment	13	38.2	14	20.3
Curriculum improvement	9	26.5	14	20.3
More efficient use of teachers	7	20.6	14	20.3
Schedule changed	7	20.6	12	17.4
Administration-faculty unity	6	17.6	11	15.9
Students motivated to learn	7	20.6	7	10.1
More student-teacher contact	4	11.8	15	21.7
Better administrative procedures	3	8.8	12	17.4

Table 9. Continued

	Younger		Older	
	Fre- quencies	%	Fre- quencies	%
Respect and tolerance	2	5.9	8	11.6
Faculty unity	9	26.5	9	13.0
Proper dress	3	8.8	10	14.5
Better attendance	2	5.9	7	10.1
Better counseling	9	26.5	7	10.1
School spirit and pride	2	5.9	7	10.1
Student leadership and activities	3	8.8	12	17.4
Less student loafing	2	5.9	6	8.7
Individualize schedules	7	20.6	7	10.1
Emphasis on academics and culture	2	5.9	8	11.6
Change grading system	6	17.6	7	10.1
Parents involved	2	5.9	5	7.2
More vocational training	5	14.7	3	4.3
Faculty self-improvement	3	8.8	7	10.1
Better meetings	5	14.7	2	2.9
Interdepartmental communication	1	2.9	6	8.7
More structured time	0	0.0	4	5.8
Independent study	3	8.8	4	5.8
Professionalism	2	5.9	3	4.3
Individualized instruction	3	8.8	5	7.2
Miscellany	15	44.1	24	34.8

A search of Table 10 will disclose the probabilities projected by the Z test on the data concerning values categorized by age of teachers.

A statistical analysis of these data fails to reject the third hypothesis, "No difference in values by age," with the exception of two

Table 10. The probability of categorized responses being drawn from a single population when tabulated by age

	Younger/Older
Order, discipline, respect for property	.125
Improve plant and equipment	.052
Curriculum improvement	.478
More efficient use of teachers	.972
Schedule changed	.694
Administration-faculty unity	.827
Students motivated to learn	.143
More student-teacher contact	.223
Better administrative procedures	.245
Respect and tolerance	.358
Faculty unity	.090
Proper dress	.413
Better attendance	.477
Better counseling	.031*
School spirit and pride	.477
Student leadership and activities	.245
Less student loafing	.618
Individualize schedules	.143
Emphasis on academics and culture	.358
Change grading system	.280
Parents involved	.805
More vocational training	.063
Faculty self-improvement	.834
Better meetings	.025*
Interdepartmental communication	.271
More structured time	.152

\* Significant difference at the .05 level.

Table 10. Continued

	Younger/Older
Independent study	.569
Professionalism	.722
Individualized instruction	.775
Miscellany	.360

categories of better counseling and better meetings. Teachers under thirty demanded better counselors and better faculty meetings.

The last hypothesis to be tested stated there is no significant difference in teacher values when categorized by years of experience.

Table 11 contains the frequencies and percentages of those responding when classified by years of experience. Teachers were classified as inexperienced if they had ten years or less and experienced with 11 years or more. When classified in this manner, the less experienced demonstrated more concern about the importance of faculty-unity and better and more appropriate faculty meetings. The more experienced teacher appeared to express greater concern about the lack of order and discipline as students gained more freedom.

Table 11. The frequencies and percentages of faculty responses in Schools A, B, C when categorized by experience

	<u>Inexperience</u>		<u>Experience</u>	
	Fre- quencies	%	Fre- quencies	%
Order, discipline, respect for property	19	27.1	23	47.9
Improve plant and equipment	20	28.6	12	25.0
Curriculum improvement	16	22.9	9	18.8

Table 11. Continued

	Inexperience		Experience	
	Fre- quencies	%	Fre- quencies	%
More efficient use of teachers	17	24.3	9	18.8
Schedule changed	14	20.0	7	14.6
Administration-faculty unity	14	20.0	5	10.4
Students motivated to learn	10	14.3	7	14.6
More student-teacher contact	12	17.1	10	20.8
Better administrative procedures	9	12.9	7	14.6
Respect and tolerance	6	8.6	7	14.6
Faculty unity	16	22.9	4	8.3
Proper dress	7	10.0	8	16.7
Better attendance	5	7.1	7	14.6
Better counseling	14	20.0	5	10.4
School spirit and pride	5	7.1	8	16.7
Student leadership and activities	8	11.4	8	16.7
Less student loafing	7	10.0	5	10.4
Individualize schedules	12	17.1	4	8.3
Emphasis on academics and culture	5	7.1	5	10.4
Change grading system	10	14.3	3	6.3
Parents involved	6	8.6	3	6.3
More vocational training	8	11.4	3	6.3
Faculty self-improvement	8	11.4	2	4.2
Better meetings	7	10.0	1	2.1
Interdepartmental communication	5	7.1	4	8.3
More structured time	3	4.3	3	6.3
Independent study	5	7.1	3	6.3
Professionalism	3	4.3	3	6.3
Individualized instruction	6	8.6	2	4.2
Miscellany	27	38.6	19	39.6

Data in Table 12 portray the probability generated by the Z test on values expressed categorized by experience.

Following a statistical treatment of the data in Table 12, it was found that experienced teachers showed significantly more concern for order and discipline, while the inexperienced teacher voiced more interest in faculty unity.

Table 12. The probability of categorized responses being drawn from a single population when tabulated by experience

	Inexperienced/Experienced
Order, discipline, respect for property	.020*
Improve plant and equipment	.666
Curriculum improvement	.593
More efficient use of teachers	.479
Schedule changed	.451
Administration-faculty unity	.163
Students motivated to learn	.964
More student-teacher contact	.612
Better administrative procedures	.791
Respect and tolerance	.307
Faculty unity	.038*
Proper dress	.283
Better attendance	.185
Better counseling	.163
School spirit and pride	.102
Student leadership and activities	.409
Less student loafing	.944
Individualize schedules	.170
Emphasis on academics and culture	.526
Change grading system	.173
Parents involved	.645

\* Significant difference at the .05 level.

Table 12. Continued

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	Inexperienced/Experienced
More vocational training	.349
Faculty self-improvement	.168
Better meetings	.094
Interdepartmental communication	.809
More structured time	.628
Independent study	.865
Professionalism	.628
Individualized instruction	.351
Miscellany	.913

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## SUMMARY AND CONCLUSIONS

This chapter contains sections devoted to a summary of this study, conclusions, limitations of the study and recommendations for further study.

## Summary

This study had a two fold purpose. The first purpose was to allow faculty members from predetermined schools, using the ECHO method, to respond freely without requiring a specific response to gain a better understanding of teacher values and concerns. A second purpose was to compare teacher values among schools categorized at various stages of the process of individualizing learning, and also, to compare teacher values when categorized by sex, age, and years of experience.

The following general school characteristics served as guidelines for their selection in this study:

## School District A (Conventional)

Type of organization	K-6-3-3
District population	41,000
Enrollment total	6,616
Enrollment in grades 10-12	1,268
Certified personnel 10-12	75
NCA approved	

## School District B (Moderately Innovative)

Type of organization	K-6-3-3
District population	10,000
Enrollment total	2,608
Enrollment in grades 10-12	500
Certified personnel 10-12	45
Not NCA approved	

## School District C (Highly Innovative)

Type of organization	K-6-3-3
District population	33,000
Enrollment total	7,797
Enrollment in grades 10-12	1,687
Certified personnel 10-12	111
NCA approved	

Table 13. Composite staff characteristics of schools in study

	Younger		Older	
	Inexpe- rienced	Experi- enced	Inexpe- rienced	Experi- enced
<u>School A (conventional) - Male</u>				
Total frequencies	4	1	7	10
Total percentage	11.1	2.8	19.4	27.8
- Female				
Total frequencies	7	0	4	3
Total percentage	19.5	0	11.1	8.3
<u>School B (moderately innovative)</u>				
- Male				
Total frequencies	3	0	1	6
Total percentage	20	0	6.6	40
- Female				
Total frequencies	5	0	0	0
Total percentage	33.4	0	0	0
<u>School C (highly innovative)</u>				
- Male				
Total frequencies	9	1	15	16
Total percentage	17.3	1.9	28.9	30.8
- Female				
Total frequencies	5	0	2	4
Total percentage	9.6	0	3.8	7.7

The proceeding classifications should be examined prior to analyzing these data:

Sex	=	Male
		Female
Age	=	Younger - 30 years or younger
		Older - 31 years or older
Years of experience	=	Inexperience - 10 years or less
		Experience - 11 years or more

Individualized learning criteria used to select schools consisted of individualized instructional situations. These included all opportunities for successful learning which may be affected by any of the following variables.

- A. Human elements - All human resources within a school district - student, teacher, administrator, paraprofessional.
- B. Activities - All planned learning strategies implemented to attain the goal of mastering the learning objective.
- C. Content - The specific content of the course or objective within an academic area.
- D. Materials - All print and non-print materials available to the human elements.
- E. Performance criteria - The specific or acceptable standards of performance expected by the human elements.
- F. Time - The flexibility of this factor as it applies to requests and needs of the human element.
- G. Finances - The availability of money necessary to meet the successful achievement of the planned educational goals by the human elements.

In order to develop the optimum of most effective instructional procedure for each individual, at least one of the option components stated above must be present. The number and combinations of the components involved in the process will determine the level of individualized learning optimum.

The following numerical rankings were assigned after conferring with the principals of the respective schools:

	School A	School B	School C
A) Human factors	2	3	3
B) Activities	3	2	3
C) Content	3	2	3
D) Materials	3	2	3
E) Performance criteria	2	3	3
F) Time	2	2	3
G) Finances	3	3	4

Estimate of level of involvement by the administrator in the utilization of the variables of the individualized learning situation. Range 1-4 -- with one being little usage to four highly utilized.

These problems raised two basic questions:

1. Is there a significant difference in teacher values among schools categorized at different levels of involvement in the individualized learning process?
2. Is there a significant difference between teacher values when teachers are categorized by sex, age, and years of experience?

These questions generated the following hypotheses:

1. There is no significant difference in teacher values among schools categorized at different levels of involvement in the individualized learning process.

In investigating this hypothesis, similarities and differences were found in all categories among the various schools selected. In testing this hypothesis, by the Z test, the following main effects were found.

The faculty of School A or the conventional school emphasized instruction and resources, although they were also concerned about the general orderliness in a school community.

Responses of School B or the moderately innovative school emphasized the importance of order and strong school discipline and teacher morale factors.

Responses from faculty members in School C, designated as highly innovative, reflected a major concern about order and student discipline and the availability of current academic resource centers for the individualized learning process.

School A also expressed concern and an awareness of the need to re-evaluate the curriculum offerings, facilities and equipment. More effective use of teachers in differentiating staff assignments, the importance of developing a new type of schedule for classes, better counseling, better attendance on the part of the students, and an increased awareness on the academic and cultural aspects in their school were also indicated by faculty responses.

School B emphasized further concern for closer administrative and

faculty unity, a more effective student dress code and more effort expended to involve parents in school-wide meetings and decisions. This moderately innovative school also expressed a concern that school meetings become more highly structured and more relevant to academic concerns. Students in this school were believed to have too much unscheduled time, and it was finally recommended that more emphasis be placed on structured class situations, academics as opposed to the social aspects of school life being accentuated.

Finally, School C, which was designated as the highly innovative school, showed a concern for examining present facilities and equipment needs and placed greater emphasis on student motivation and respect for school personnel. The faculty responses also revealed a concern about greater school spirit, better attendance, and more effective utilization of unscheduled time by students.

Although in each school there were similarities and differences from the above information, it is apparent the hypothesis, "there is no significant difference of teacher values among schools," can be rejected.

The next hypothesis investigated was:

2. "There is no significant difference in teacher values when teachers are categorized by sex."

This second hypothesis was rejected after an analysis of the responses indicated that males appeared to be more concerned about administrative procedures and proper dress than their female colleagues. At the same time, the females reflected more concern about students having a proper attitude and being motivated to learn independently of structured

environments.

The third hypothesis stated:

3. "There is no significant difference in teacher values when teachers are categorized by age."

This hypothesis must be rejected; older teachers responded with greater concern about order within a school and appropriate disciplinary action for infractions. The younger teachers showed more interest in evaluating facilities and equipment needs necessary to individualize learning. Younger teachers also emphasized a desire for greater faculty unity. In addition, the younger teacher was more interested in effective counseling procedures and placed importance on vocational training opportunities for individuals who could not identify with the present curriculum offerings. They also seemed to want more effective meetings, both at the department and faculty levels.

The final hypothesis investigated was:

4. "There is no significant difference in teacher values when teachers are categorized by years of experience."

This hypothesis was rejected when a statistical analysis of responses by experienced teachers reflected significant concern for order and discipline while the inexperienced teacher expressed more interest in faculty unity and better meetings.

In each of the above analyses, the probability of category responses being drawn from a single homogenous population when tabulated by the test, reflected a significant difference at either the .01 or the .05 level prior to rejecting the hypothesis.

### Conclusions

In the first chapter, two basic questions and four hypotheses were stated. These questions and the hypotheses tested as revealed by this study will now be presented. Further observation inferred from the data will be added when it appears relevant and appropriate.

The following conclusions were warranted:

The first hypothesis tested was that there is no significant difference in teacher values among schools categorized at different levels of involvement in the individualized learning process.

The data revealed School A was more concerned about curriculum instruction, resources and, to a lesser degree, about order and discipline than either School B or C.

School B and C placed greater emphasis on order, discipline and teacher morale within their school than did School A.

However, School C also reflected a desire to utilize school resources more effectively.

Not as obvious, but still present were the following indications:

School A - Emphasized plant and equipment needs, better use of teachers, a need for a schedule change, better counseling services and better attendance to class.

School B - Stressed the importance of better student dress guidelines, the need to involve parents more extensively, better faculty meetings, and more emphasis on the academic activities.

School C - Expressed concern about more effective ways to motivate



students, develop school spirit, more respect for school traditions and more effective use of time by students.

The second hypothesis tested was that there is no significant difference in teacher values when teachers are categorized by sex. An examination of these data showed male teachers were more concerned about administrative procedures and proper student dress. Female teachers were more interested in effective ways to motivate students to learn than were their male colleagues.

The third hypothesis analyzed was that there is no difference in teacher values when categorized by age. The analysis revealed younger teachers are more concerned about facilities and equipment, faculty unity, better counseling, vocational training and better meetings. The older teacher was more concerned about student discipline and orderliness.

The final hypothesis tested was that there is no difference in teacher values when teachers are categorized by years of experience. The data showed the less experienced teacher was more concerned about better faculty and department meetings. Greater emphasis must be placed on order and discipline was the feeling of the more experienced teacher.

A central question which must be answered is, "Why did we find what we found?" An initial response to this question was that it was found because it was there. While there appear to be many similarities and differences among the responses of faculty members when their responses are categorized by school, it is also apparent there are many differences and similarities existing among teachers when categorized by sex, age, and experience.

The most difficult area to draw concluding statements about was the first hypothesis which stated "there is no difference in teacher values among the schools categorized at different levels of involvement in the individualized learning process." It was important to isolate the value responses by schools after studying the kind of school and community climate that existed. For example, the population that comprises School District A, the conventional school, is a highly cultural population center characterized by a university and located near a larger metropolitan area. In general, this school employs a larger number of people with advanced degrees and has as a large part of its enrollment students who represent parents from more advanced educational backgrounds. This may support the inclination of those employed in this school district to look on education differently than in a school where a large number of parents have not had higher education.

Other factors affecting this school include the type of emphasis placed on an academic cultural aspect that you would not normally expect to find in either School B or School C. This community could further be regarded as relatively traditional and conservative. In addition, the administrative leadership in this particular school district had remained constant for more than 15 years. These characteristics tend to support the faculty concerns for greater interest in curriculum instruction and the importance of instructional resources appropriate to the learning needs of students in this community. Certainly this is consistent with the knowledge that as people remain longer with a system, they tend to become more concerned with the necessity for regulations, routines, and

the certainty of knowing what will happen in day to day situations.

In contrast, School District B is in a rapidly growing suburb of a larger city that retained many of the staff from the original school district. The district's newness and its rapid increase in enrollment accelerated its need to evaluate the education program in existence. Coupled with this and assisting the reorganization process was a complete change of administrative leadership style. Revamping the curriculum offerings and making a specific commitment to the process of individualizing learning were further results of this administrative change. These major changes, not only in structure but in purpose, could very easily support the concerns that teachers of School B expressed in their responses for greater emphasis on administrative leadership, teacher morale and discipline within a school.

As is true with any major organizational change, whether it relates to enrollment, facilities or staffing, there needs to be a transition period with a particular sensitivity to recognizing the various human elements as a part of the change process. At the same time, this school, when small, had not enjoyed success in either athletics or other extra-curricular activities. However, with an increased enrollment, it is now enjoying and competing favorably with other schools who have not yet experienced a similar growth. This success has unified and created a cohesive unit in terms of school spirit among students. Equally important was the school community structure which is now a mixture of rural and urban people. This new dimension may explain the concern of this faculty for the need to bring together the new parental makeup in this community.

The purpose is to more effectively communicate the intent of the school or to learn the concerns parents may have about the changing school concept. A constant theme reflected in the responses of faculty members was to reestablish better communication not only in the school but in the community as well.

Examination of the characteristics of School C revealed it to be a community which was relatively conservative and employed many experienced teachers. During recent years, the school district had a change of leadership at all levels. The community enjoys a college atmosphere and is adjacent to a state which has been a forerunner in innovations throughout the Midwest.

School District C, through its reorganization of top administration, committed itself to a course of action which would involve new efforts to individualize learning and expand the concept of differentiated staffing. This school redefined specific target goals in order to chart an educational course. Opportunities to work during the summer to develop curriculum may explain why curriculum was not expressed more frequently in faculty responses. With so many changes confronting a seasoned staff, it may be normal that staff members question the freedom extended to students associated with the independent study program. Further conjecture may add to the conclusion that as greater emphasis is placed on individual learning, it may also affect the extent of participation in group and extra-curricular activities. Traditions and school spirit may inadvertently receive less emphasis as the overall school goal is to develop each individual rather than as a member of any specific group process.

As students are initially exposed to the concept of accountability for their own learning, it may be necessary to expect a trial and error period. To parents, citizens and teachers this may give the appearance of student permissiveness. However, as the data are further analyzed, one sees an increasingly accelerated interest in providing appropriate print and non-print resources necessary to a complete individualized learning environment. As a result, this may establish a rationale for understanding the simultaneous concern for discipline and students assuming a responsibility for their own learning. While many generalizations could be made about the effect of the individualized learning process on the value responses by teachers, it should also be pointed out that there may be many other ramifications. These include community characteristics, types of staff personnel and the availability of the components necessary for an effective individualized learning situation.

The differences and similarities found may reflect any one or combination of the individual characteristics enumerated above.

When a test of the hypothesis "that there are no differences in teacher values by sex" showed that generally male teachers were more concerned about better administrative procedures and proper dress than female teachers--this hypothesis was rejected. One explanation could be the secondary male teacher generally has been the primary wage earner and could therefore be more concerned about an environment in which he will spend a larger part of his life. This is more peculiar to secondary education. It has further been evident that male teachers are generally more threatened by the appearance of young people with poor grooming

habits. This could be explained by the experience many men have had in military service or in job application situations. More often overt physical actions are made toward men by students than toward female teachers. This tends to explain the values expressed by males in expecting the administration to provide a framework which is characterized by orderliness and good discipline. Our professional society of teachers has generally been regarded as a matriarchal one for females have comprised the largest segment of the teaching profession from elementary through junior high school years. This influence may reflect the maternal instinct which females place on the importance of motivating students more successfully. Men are more apt to think in terms of the world of hard knocks and assume that it is equally as important for young people to experience failure and difficult times while females may tend to be more protective.

The third hypothesis to be tested was "that there was no significant difference in teacher values characterized by age" generally showed younger teachers were more concerned about facilities, faculty unity, better counseling, better vocational training, better faculty and departmental meetings, than older teachers. The older teacher appeared to be more concerned about school procedures and uniformity in the application of discipline as it applied to various school situations. It is safe to assume that the responses of the younger teacher just removed from an academic setting where modern technology and financing were not his concern would differ from the experienced teacher who has learned to live with budget cuts during most of his teaching experiences. Certainly, many of the younger teachers may idealistically think that

once in the field, the theoretical approaches in undergraduate programs would now give way to practical and valuable inservice approaches. Their responses also expressed their aspirations of the theoretical and restricting college atmospheres would be replaced by stimulating and participatory departmental and faculty meetings. It is certainly possible with the so-called "generation gap" that a younger teacher has more recently been confronted by the current pressures of a global society and as a result, sought counseling from individuals in the college atmosphere or from close friends. As a result of this association, they may have reflected their concern for better counseling and more appropriate vocational training as related to their frustrations in selecting their academic endeavor. The younger teacher more often is interested in becoming a member of a group which may be partially explained by his recent contact with college life which included belonging to a variety of activities. This desire for involvement often becomes abrasive to experienced teachers when their opinions are expressed without, seemingly, having the total spectrum of the educational program in view. In many ways, a cleavage results when both the experienced teacher feels a lack of practicality on the part of the younger teacher while the younger teacher feels his suggestions often go unheeded.

When the last hypothesis which stated "that there is no significant difference in teacher values when categorized by years of experience" revealed the less experienced teacher was more concerned about faculty unity and better, more appropriate faculty meetings, it was rejected. The

experienced teacher generally expressed greater concern about the lack of order and discipline as students gained more freedom. Contrary to any implication in this study, there was no evidence to suggest that the older and more experienced teacher was less receptive to individualizing learning. However, there is ample reason to believe the older and more experienced teacher is more concerned about defining the exact perimeters which govern learning than is his younger counterpart.

#### Limitations

As with most research, certain limitations must be imposed before utilizing the results of this study. These are as follows:

Because the selection procedures for schools in this study were restricted to certain predetermined criteria in the State of Iowa, the conclusions should also be limited to school districts within the State of Iowa and only to school districts involved to some recognized extent in defining the individualized learning process within a school. Since these schools were not randomly selected to represent any general classes, the results of the hypotheses testing should only be applied to these three schools.

Regardless of the technique implemented to obtain faculty responses, the taxonomy of responses is a function of the trained classifiers.

Certainly it is essential prior to a critical analysis to accept the definitions of the concepts of attitudes, opinions, and values given in this study. It is necessary to accept that attitudes and values are measurable by the Echo method.



Any significant change within the State of Iowa as it applies to reorganization, financing or certification could possibly influence other studies which necessitate open-ended responses from faculty members. In addition, any national uniform testing developments could also affect this type of study.

The list of school classified categories incorporated in this study was not intended to be exhaustive. These could easily be expanded to meet other individual characteristics of schools. Extensive efforts to differentiate a faculty could also affect the responses for individual schools.

In order to provide large enough counts in cells to be representative, it was necessary to reduce the number of classifications in both age and years of experience. Although this did not measurably affect the study, it was less specific than originally intended.

#### Recommendations

The following recommendations are advanced for further study for practicing administrators:

From the results of this study, a follow-up with a more specific questionnaire determining how change could be implemented may be used. It may be beneficial to find out from staff members what people or variables could bring about change.

Value studies concerning other auxiliary personnel such as paraprofessionals, secretaries, custodians and so forth could be obtained within a school district. By obtaining this type of response, it may minimize

many misunderstandings this group of employees have about school objectives. In this way they may become public relations agents.

A specific value test measuring teacher, student, and administrative values within a district could be developed.

It may be important to obtain responses of both student and community values in order to determine if conflicting or similar values exist within a given school district. By obtaining this information, it would be possible to determine if the community as a whole understands and supports the goals of a program. It might indicate additional areas where more information is needed.

A retest within the school districts could be initiated to determine the reliability of this study. Although the reliability on Echo testing is high for most school situations, those interested in determining if teacher values have changed should consider this possibility.

Other studies might require staff members to participate although this could promote a biased response from those who prefer to remain anonymous. This would allow a more accurate analysis by department.

A composite of staff responses by categories should be examined by each school in the survey. The results should be shared with staff members.

Finally, the information provided from this study might be effective used to supplement or create the following types of inservice communication opportunities for schools in the survey.

1. Promote communication between staff and administration.
2. Determine more accurately how segments of a staff feel about

school issues.

3. Serve as agenda items for staff and department meetings.
4. Look at common areas of interest in a specific school and other schools in the survey.
5. Evaluate present educational priorities.
6. Identify potential problem areas within a staff and student body.
7. Strengthen and develop staff and school morale.
8. Establish meaningful dialogue by publishing results and requesting that recommendations are made to bring about desirable changes.

The following recommendations are advanced for further study by future researchers:

While the ECHO method and certainly others equally reliable have been used to measure values, the search for other instruments should be continued.

Similar studies could be undertaken on a regional or national level. This could be justified on the basis of educational mobility and similarities within a given profession.

Other research depicting a comparison of values based on administrative styles could also be explored.

From the information which generated the taxonomy for the various categories, a specific value test could be developed. This could possibly determine universal values for teachers in the educational profession.

The indigenous information pertaining to teacher-respondents could

be expanded to include levels of educational training, family, religion, and political beliefs.

Further research could possibly refine the present criterion characteristics of the individual learning process to determine if others should be included, eliminated or isolated to determine the specific effect on teacher values.

Further research in the study of teacher values could be expanded by including other public and parochial schools within the state and on a regional basis.

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APPENDIX: SURVEY QUESTIONNAIRES

SCHOOL AStaff Self-Study

Consistent with our efforts to improve the quality of education, our high school is conducting this self-study in order to better understand our educational needs. Many have expressed personal opinions on how this might be accomplished. Your ideas are needed.

In order to determine the relationships of ideas to individual characteristics, the following information is desirable. Please note that confidentiality is assured since your name does not appear anywhere on this form.

Please check the appropriate boxes.

## 1. SEX

Male

Marital Status \_\_\_\_\_

Female

Specify

Major teaching assignment \_\_\_\_\_

Specify

Number of children

None

Age \_\_\_\_\_

Specify

One

Two

Three

More than three

Number of years as teacher \_\_\_\_\_

Specify

Number of years as teacher in this district \_\_\_\_\_

Specify

## 2. How would you describe your performance as a teacher?

3. What is your opinion of the students at our high school?

4. What is your opinion of students in general?

5. What is your opinion of young people in general?

On this page and the next, you will be asked to describe seven different good things you would like to see happen at our high school. (If you are unable to think of seven good things, describe as many as you can.)

6. What is a good thing you would like to see happen at our high school?

Who or what would cause that to happen?

7. What is another good thing you would like to see happen?

Who or what would cause that to happen?

8. What is another good thing you would like to see happen?

Who or what would cause that to happen?

9. What is another good thing you would like to see happen?

Who or what would cause that to happen?

10. What is another good thing you would like to see happen?

Who or what would cause that to happen?

11. What is another good thing you would like to see happen?

Who or what would cause that to happen?

12. What is another good thing you would like to see happen?

Who or what would cause that to happen?

Please return to the office. Thank you!

SCHOOL BStaff Self-Study

Consistent with our efforts to improve the quality of education, our high school is conducting this self-study in order to better understand our educational needs. Many have expressed personal opinions on how this might be accomplished. Your ideas are needed.

In order to determine the relationships of ideas to individual characteristics, the following information is desirable. Please note that confidentiality is assured since your name does not appear anywhere on this form.

Please check the appropriate boxes.

## 1. SEX

Male

Marital Status \_\_\_\_\_

Female

Specify \_\_\_\_\_

Major teaching assignment \_\_\_\_\_

Specify \_\_\_\_\_

Number of children

None

Age \_\_\_\_\_

Specify \_\_\_\_\_

One

Two

Three

More than three

Number of years as teacher \_\_\_\_\_

Specify \_\_\_\_\_

Number of years as teacher in this district \_\_\_\_\_

Specify \_\_\_\_\_

## 2. How would you describe your performance as a teacher?

3. Describe one way you use your unscheduled time in school.

How much time do you spend doing that each week?

4. Describe another way you use your unscheduled time in school.

How much time do you spend doing that each week?

5. Describe another way you use your unscheduled time in school.

How much time do you spend doing that each week?

6. Describe one way you think most teachers are using their unscheduled time in school.

How much time do you think they spend doing that each week?

7. Describe another way you think most teachers are using their unscheduled time in school.

How much time do you think they spend doing that each week?



8. Describe one way you think teachers should use their unscheduled time in school.
  
9. Describe another way you think teachers should use their unscheduled time in school.
  
10. Describe one way you think most students are using their unscheduled time in school.

How much time do you think they spend doing that each week?

11. Describe another way you think most students are using their unscheduled time in school.

How much time do you think they spend doing that each week?

12. Describe one way you think students should use their unscheduled time in school.

13. Describe another way you think students should use their unscheduled time in school.
  
14. What is your opinion of the students at our high school?
  
15. What is your opinion of students in general?
  
16. What is your opinion of young people in general?

On this page and the next, you will be asked to describe seven different good things you would like to see happen at our high school. (If you are unable to think of seven good things, describe as many as you can.)

17. What is a good thing you would like to see happen at our high school?

Who or what would cause that to happen?

18. What is another good thing you would like to see happen?

Who or what would cause that to happen?

19. What is another good thing you would like to see happen?

Who or what would cause that to happen?

20. What is another good thing you would like to see happen?

Who or what would cause that to happen?

21. What is another good thing you would like to see happen?

Who or what would cause that to happen?

22. What is another good thing you would like to see happen?

Who or what would cause that to happen?

23. What is another good thing you would like to see happen?

Who or what would cause that to happen?

Please return to the office. Thank you!

SCHOOL C

Staff Self-Study

Consistent with our efforts to improve the quality of education, our high school is conducting this self-study in order to better understand our educational needs. Many have expressed personal opinions on how this might be accomplished. Your ideas are needed.

In order to determine the relationships of ideas to individual characteristics, the following information is desirable. Please note that confidentiality is assured since your name does not appear anywhere on this form.

Please check the appropriate boxes.

1. SEX

Male

Marital Status \_\_\_\_\_

Female

Specify

Major teaching assignment \_\_\_\_\_

Specify

Number of children

None

Age \_\_\_\_\_

Specify

One

Two

Three

More than three

Number of years as teacher \_\_\_\_\_

Specify

Number of years as teacher in this district \_\_\_\_\_

Specify

2. How would you describe your performance as a teacher?

3. Describe one way you use your unscheduled time in school.

How much time do you spend doing that each week?

4. Describe another way you use your unscheduled time in school.

How much time do you spend doing that each week?

5. Describe another way you use your unscheduled time in school.

How much time do you spend doing that each week?

6. Describe one way you think most teachers are using their unscheduled time in school.

How much time do you think they spend doing that each week?

7. Describe another way you think most teachers are using their unscheduled time in school.

How much time do you think they spend doing that each week?

8. Describe one way you think teachers should use their unscheduled time in school.
  
9. Describe another way you think teachers should use their unscheduled time in school.
  
10. Describe one way you think most students are using their unscheduled time in school.

How much time do you think they spend doing that each week?

11. Describe another way you think most students are using their unscheduled time in school.

How much time do you think they spend doing that each week?

12. Describe one way you think students should use their unscheduled time in school.

13. Describe another way you think students should use their unscheduled time in school.
  
14. What is your opinion of the students at our high school?
  
15. What is your opinion of students in general?
  
16. What is your opinion of young people in general?

On this page and the next, you will be asked to describe seven different good things you would like to see happen at our high school. (If you are unable to think of seven good things, describe as many as you can.)

17. What is a good thing you would like to see happen at our high school?

Who or what would cause that to happen?

18. What is another good thing you would like to see happen?

Who or what would cause that to happen?

19. What is another good thing you would like to see happen?

Who or what would cause that to happen?

20. What is another good thing you would like to see happen?

Who or what would cause that to happen?

21. What is another good thing you would like to see happen?

Who or what would cause that to happen?

22. What is another good thing you would like to see happen?

Who or what would cause that to happen?

23. What is another good thing you would like to see happen?

Who or what would cause that to happen?

Please return to the office. Thank you!