THE RELATIONSHIP OF PERCEPTUAL CLASSIFICATION TO PRINCIPAL-TEACHER AND PRINCIPAL-PUPIL INTERACTION IN SELECTED HIGH SCHOOLS

> Thesis for the Degree of Ed. D. MICHIGAN STATE UNIVERSITY Constantine James Lafkiotes 1961

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### THE RELATIONSHIP OF PERCEPTUAL CLASSIFICATION TO PRINCIPAL-TEACHER AND PRINCIPAL-PUPIL INTERACTION IN SELECTED HIGH SCHOOLS

presented by

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has been accepted towards fulfillment of the requirements for

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#### ABSTRACT

## THE RELATIONSHIP OF PERCEPTUAL CLASSIFICATION TO PRINCIPAL TEACHER AND PRINCIPAL PUPIL INTERACTION IN SELECTED HIGH SCHOOLS

### by Constantine James Lafkiotes

### Problem

This study, an outgrowth of U.S. Office of Education Project 918, was designed to test hypotheses relating the perceptual classification of principals, teachers, and pupils to the frequency with which they interact for the purpose of discussing their professional and personal problems.

### Sample

Since Project 918 involved the study of high schools of varying design, organization and size, several methods were employed in the selection process. Numerous sources were utilized in identifying a group of 401 schools out of which 298 desired to take part in the study. Seventy-seven of the schools were visited and thirty-four selected for the project. In this group of schools, the design of the buildings varied from compact to campus types. The teachers and pupils in the schools were organized about traditional subject areas or, as was the case in several schools, the schoolwithin-school organization in which the larger school is divided into smaller units, each having its own staff and facilities. The present study utilized thirty of the thirtyfour schools which were located throughout the United States.

## Procedure

The perceptual classification of principals, teachers, and pupils was determined by K. T. Hereford's revision of the Robert Bills' <u>Index of Adjustment and Values</u>. This instrument was employed in classifying persons into four perceptual types: ++, +-, -+, and --, in terms of their acceptance of self and others. The frequency of interaction was determined by means of a rating scale which asked teachers and pupils to indicate how frequently they discussed their professional concerns (in the case of teachers) or school and/or personal problems (in the case of pupils) with each of a number of school personnel.

Each of the high schools was visited for the purpose of obtaining the data. In each case the teachers were oriented to the study and the instrumentation prior to the time of testing of pupils. Without exception, the school staff members were assured that their responses would be kept in strict confidence.

Before testing the operational hypotheses, the interaction measure was tested for relationship to a group of personal and institutional variables by means of the chi-square technique. Since the size and the organization

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chi-square technique. Since the size and the organization of schools appeared to affect the frequency of interaction, the schools were reclassified into four groups before the tests of the hypotheses were undertaken. The four groups of schools utilized were: (1) small subject organized schools, (2) large subject organized schools, (3) small schoolwithin-school organized schools, and (4) large schoolwithin-school organized schools.

## Conclusions

The evidence found in the statistical analysis led to the conclusion that, in the selected schools, there was no evident relationship between the perceptual classification of the principal and the frequency of either principalteacher or principal-pupil interaction. It was also concluded that the perceptual classification of teachers and pupils was not related to the frequency of principal-teacher or principal-pupil interaction.

Since the small number of hypotheses which were statistically significant appeared in the school-withinschool organized schools, it is suggested that, possibly, some variable associated with this type of personnel organization may affect the pattern of interaction in terms of the personalities involved. Thus, further investigation of these schools is warranted.

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Although several of the principals were classified as over-valuing individuals, there was no evidence that their interaction, for the most part, was at a lower level than that of other administrators.

Further studies employing Bills' typology would do well to study only persons who demonstrate, to a greater degree, differences in the acceptance of self and others.

THE RELATIONSHIP OF PERCEPTUAL CLASSIFICATION TO PRINCIPAL-TEACHER AND PRINCIPAL-PUPIL INTERACTION IN SELECTED HIGH SCHOOLS

By

Constantine James Lafkiotes

A THESIS

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### CHAPTER I

## STATEMENT OF THE PROBLEM

Frofessional educators have long been able, subjectively, to evaluate the effects of individual personality characteristics upon the interaction of school administrators, teachers, and pupils. In some schools there is, apparently, a high degree of cooperative effort while in others, the personnel appear to remain relatively isolated from one another. These differences in the frequency with which school personnel interact provided the theoretical framework for the development of the present study.

The data for the study was obtained from a U. S. Office of Education project undertaken at Michigan State University.<sup>1</sup> Although this project focused on the effects of school design,<sup>2</sup> it included additional instrumentation which provided data for several subsidiary inquiries.

<sup>2</sup>With \$1.6 billion being spent in 1958 on secondary schools alone, it became evident to staff members of the Michigan State University College of Education that an at-

<sup>&</sup>lt;sup>1</sup>Karl T. Hereford, Stanley E. Hecker, Robert L. Hopper, Donald J. Leu and Floyd G. Parker, "Project No. 918. Application to the Commissioner of Education, U. S. Department of Health, Education, and Welfare for Funds to Support Research Under the Provisions of Public Law 531, 83rd Congress" (East Lansing: Michigan State University, College of Education, 1960), p. 4. (Mimeographed.)



## The Problem

"The effectiveness of a school or school system is greatly influenced, if not fully determined, by the quality of its administration. The administrator is a key figure in maintaining the present educational level of the school program and in guiding its further development. His vision of needed school improvements influences the aspirations of others. His understanding and skill in human relations may affect . . . potential leadership by releasing the drive and intelligence of the faculty, the parents, and community leaders, and of children and adults attending the school."<sup>3</sup>

The process of administration is the subject of much research as those interested in this field try to develop a more adequate understanding of all aspects of this process. As the review of related literature will reveal, theorists

tempt should be made to objectify judgments concerning school design. This concern culminated in a proposal which was submitted to the U. S. Commissioner of Education by the College of Education, Michigan State University, in April, 1960. This presentation was subsequently approved as Project No. 918 by the U. S. Office of Education. The origin of the present study is traceable to this project whose major objective was the identification of sociometric and perceptual characteristics of personnel in selected high schools of differing design and organization.

<sup>&</sup>lt;sup>9</sup>David H. Jenkins and Charles A. Blackman, <u>Antecedents</u> and <u>Effects of Administrator Behavior</u> (Columbus, Ohio: College of Education, 1956), p. 1.



in the field of educational administration have utilized theories of behavior and personality that were developed in the behavioral sciences. The fact that personality plays a part in the administrative process is supported by Coladarci and Getzels when they state that, "We do not mean to suggest that personalities do not play a part in the administrative process. On the contrary, the personalities of the role incubents are in many respects the very stuff of the administrative interaction. Nor are we suggesting that the administrative interaction can, in practice, avoid becoming, at least to some extent, affectively particularistic."<sup>4</sup>

Since the personality of the chief administrator centers around his attitudes towards himself and other people, the present study is founded upon the framework and conceptualization of perceptual psychology. Although other studies have related the variables of the self-concepts or personality of the principal to his effectiveness (as operationally defined), to the frequency and patterns of communication in the school and to the human relations "tone" of the school, none have considered the relationship of the self-concepts of teachers and pupils, as well, to the frequency of their interaction with the principal.

<sup>&</sup>lt;sup>4</sup>Arthur P. Coladarci and Jacob W. Getzels, <u>The Use</u> of <u>Theory in Educational Administration</u> (Stanford, California: Stanford University Press, 1955), p. 26.



It is reasonable to expect that other variables, as well as personality, affect the dyadic pattern of interaction between the principal and the teacher and the principal and the pupils. The most apparent of these might be the size of the school in terms of the number of pupils enrolled. Because of differences in the number of personnel, it does appear that the principal could not possibly interact as often with the gross number of people present in the larger schools. Another factor to be considered is the design of the building or buildings. Here one could expect differences due to either the close physical proximity present in a compact building or the distance between personnel resulting from a decentralized campus plan. If the differences in the physical factors of size and design of facilities are shown to be relevant to the interactions of concern. the hypotheses relating perceptual classification to interaction will be tested in this framework. Since theory relating to interaction in these settings is not fully directive, other personal variables such as sex, socio-economic level, subjects enrolled in or taught, et cetera, will be examined.

The major value of this study is that it will shed light on the theory of administration which has its basis in perceptual psychology, by demonstrating if perceptual factors do indeed influence the level of interaction of teachers and pupils with the principals in the selected schools.



#### Assumptions

- The major assumption underlying this investigation is that for a high level of administrative efficiency there should be free and frequent interaction of the principal with teachers and pupils in order to cooperatively find the solutions to existing problems.
- It is assumed that the necessary perceptual types of persons will be found among the subjects to be included in the study.
- It is assumed that the subjects will be able to distinguish as to the frequency with which they interact.

### Hypotheses

The major concern of the study is the relationship of self-other perceptions of individuals to the frequency of their dyadic interactions. This concern has resulted in the development of four major hypotheses, as follows:

- H 1: There is a relationship between the perceptual classification of the <u>principal</u> and the level of <u>principal-teacher</u> interaction.
- H 2: There is a relationship between the perceptual classification of the <u>teacher</u> and the level of principal-teacher interaction.
- H 3: There is a relationship between the perceptual classification of the <u>principal</u> and the level of <u>principal-pupil</u> interaction.



H 4: There is a relationship between the perceptual classification of the <u>pupil</u> and the level of <u>principal-pupil</u> interaction.

The preceding major hypotheses will be tested in terms of a set of sub-hypotheses which are directional and which relate to each of the perceptual classifications. These will be stated and statistically tested, as well, in the analysis which will be presented in Chapter IV.

### Delimitations

Certain delimitations served to define the scope of the present study. They were:

- The investigation was limited to 34 high schools located in 23 states within the continental United States.
- 2. The selection of schools included only high schools having grades or classes of 150 pupils or larger. This will be done so that the schools selected will be more representative, in size, of the secondary schools to be built in the future.
- 3. Only principals, teachers, and pupils who had been present in the school for at least one school year prior to the date of testing were included. This criterion was established in order to control the lower

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limit of the factor of opportunity for interaction. Since all of the schools had been completed since 1955, the upper limit of the factor of opportunity to interact was set at five school years.

- 4. Only full-time principals and teachers were studied since the use of part-time personnel would introduce some bias because of their restricted opportunity for interaction.
- 5. This study was delimited to schools having either ++ (high valuing) or +- (over valuing) principals. This was done since it was expected that more administrators will fall into these two categories.
- 6. Only senior class pupils were studied because: (1) these students have had more time to establish patterns of interaction, and (2) the adult and high school senior form of the <u>Index of Adjustment and Values</u> was employed in the instrumentation.

### Definition of Terms

The term interaction is defined by Sorokin as, "Any event by which one party tangibly influences the overt

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actions or the state of mind of the other."<sup>5</sup> In the present study <u>principal-teacher interaction</u> is operationally defined as the self reports of teachers as to the frequency with which they discuss professional problems with the principal. <u>Principal-pupil interaction</u> is defined as the self reports of pupils as to the frequency with which they discuss their school or personal problems with the principal.

<u>Perceptual classification</u> is defined as consistent behavior in terms of acceptance or rejection of some important aspect of reality, namely self or other people. This classification system as developed by Robert E. Bills provides four categories based upon the individual's acceptance of self and others. The four categories are labeled ++ or high valuing, +- or over valuing, -+ or under valuing, and -- or low valuing. In each case the first symbol refers to one's acceptance of self and the second symbol to one's acceptance of others. A ++ person accepts himself and believes that his peers are equally or more accepting of themselves; a +- person accepts himself but believes that his peers are not as accepting of themselves; a -+ person rejects himself but believes that his peers are more accepting of themselves; and a -- person rejects himself and

<sup>5</sup>Pitirim Sorokin, <u>Society</u>, <u>Culture and Personality</u> (New York: Harper & Brothers, 1947), p. 37.



believes that his peers are equally or more rejecting of themselves.<sup>6</sup>

**\*\*** <u>schools</u> were defined as that group of schools which had principals whose perceptual classification was high valuing according to their responses to the <u>Index of</u> <u>Adjustment and Values</u>.

+- <u>schools</u> were defined as that group of schools which had principals whose perceptual classification was over valuing according to their responses to the <u>Index of</u> <u>Adjustment and Values.</u><sup>7</sup>

# <u>Plan of the Thesis</u>

Chapter I, the statement of the problem, has presented the background of the study together with a presentation of the problem to be studied. A review of related literature will be presented in Chapter II. Chapter III will contain the procedure and methodology of the study, while the analysis of data will be reported in Chapter IV. The summary, conclusions, and recommendations of the study will be presented in Chapter V.

<sup>&</sup>lt;sup>6</sup>Robert Bills, "About People and Teaching," <u>The</u> <u>Bulletin of the Bureau of School Service</u>, College of Education, University of Kentucky, XXVII (December, 1955), p. 20.

<sup>&</sup>lt;sup>7</sup>Robert E. Bills, <u>Manual for the Index of Adjustment</u> <u>and Values. Form: Adult and High School Senior</u> (Auburn, Alabama: Alabama Polytechnic Institute, 1959). (Mimeographed.)



### CHAPTER II

## RELATED LITERATURE

A selective review of literature pertaining to this study is apparently necessary before an insightful interpretation of the findings can be formulated. In order to achieve this insight, the pertinent writings of persons, both in psychology and educational administration will be reviewed. Consideration will be given to theory development as well as related empirical studies.

# Literature from Psychology

<u>Terminology</u>. In reviewing the works of numerous writers who concern themselves with that aspect of personality called "self," one finds a great diversity in the vocabulary employed to designate this entity, the very nucleus of each person's being. Allport<sup>1</sup> uses the word ego as its equivalent, as do Sherif and Cantril<sup>2</sup> in referring to the subjective aspect of personality.

<sup>&</sup>lt;sup>1</sup>Gordon W. Allport, <u>The Nature of Personality:</u> <u>Selected Papers</u> (Cambridge: Addison-Wesley Press, 1950), p. 122.

<sup>&</sup>lt;sup>2</sup>Mugafer Sherif and Hadley Cantril, <u>The Psychology</u> of <u>Ego-Involvement</u> (New York: John Wiley and Sons, Inc., 1947), p. 4.

Lecky,<sup>3</sup> in stressing the individual's desire for consistency and integrity, tends to be more inclusive and equates it with personality. Symonds,<sup>4</sup> on the other hand, divides it into two elements: the ego, which refers "to that phase of personality which determines adjustment to the outside world in the interest of satisfying inner needs" and the self, which refers "to the body and mind and to bodily and mental processes as they are observed and reacted to by the individual."

Other writers modify the word apparently to stress a particular aspect of the theory of self which they profess. For example, in speaking of the social self,  $Cooley^5$  stresses his strong belief in the development and maintenance of the self through social interaction. By framing the expression phenomenal self, Snygg and  $Combs^6$  assign major significance to a person's own perception of this relationship to his environment. The empirical self of James<sup>7</sup> exemplifies the

<sup>3</sup>Prescott Lecky, <u>Self-Consistency</u>: <u>A</u> <u>Theory of</u> <u>Personality</u> (New York: Island Press, 1945), p. 82.

<sup>4</sup>Percival Symonds, <u>The Ego and the Self</u> (New York: Appleton-Century Crofts, Inc., 1951), p. 4.

<sup>5</sup>Charles Horton Cooley, <u>Human Nature and the Social</u> <u>Order</u> (New York: Charles Scribner's Sons, 1922).

<sup>6</sup>Arthur W. Combs and Donald Snygg, <u>Individual</u> <u>Behavior</u> (New York: Harper and Brothers, 1959), p. 82.

<sup>7</sup>William James, <u>The Principles of Psychology</u> (New York: Henry Holt and Company, 1890).

physiological and experiential which he identifies as the "me." A more recent writer, Raimy,<sup>8</sup> contributed another to this list, the self-concept, for the purpose of designating the object of man's deepest and most private feelings. He defines it as "a learned perceptual system which functions as an object in the perceptual field."

Theory. The irregularities of terminology notwithstanding the pronouncements of theories and experimentation are more closely related than one might expect. The majority of scholars agree that the self is not an innate entity but a process, an interaction between the outer world and the individual, starting as an infant and changing, fluidly, as the number of contacts increases and as the symbols of society become more complex.

An interesting viewpoint is held by Sullivan who fills the gap between birth and the budding of selfconsciousness with the term empathy which is, he feels, an instinctive process.<sup>9</sup>

Combs and Snygg see the components of the self as

<sup>9</sup>Harry S. Sullivan, <u>Conception of Modern Psychiatry</u> (New York: W. W. Norton and Company, 1953).

<sup>&</sup>lt;sup>8</sup>Victor C. Raimy, "The Self Concept as a Factor in Counseling and Personality Organizations" (Unpublished Doctor's thesis, Ohio State University, Columbus, 1943).

a threefold concentric system. At the very center is the self-concept encircled by the area of the phenomenal self which, in turn, is encircled by the phenomenal field. "These three shade into each other" and are involved in varying portions at different times in behavior.<sup>10</sup> Furthermore, they hold the position that individual behavior seeks to maintain or enhance this self-organization.

<u>Personality typologies</u>. The classification of persons into physical types is one of the oldest concerns of Psychology. Kretschmer, a German psychiatrist, was best known for associating psychological attributes with physical characteristics. In his system there were three basic physical types which he named pyknic, asthenic, and athletic. However, his attempts to classify all persons into these types ended in failure.<sup>11</sup> His work was later carried on by an American investigator named Sheldon. He suggested that the differences in persons could be expressed as quantitative variations of three basic components which he termed endomorphy, mesomorphy, and ectomorphy.<sup>12</sup>

<sup>&</sup>lt;sup>10</sup>Arthur W. Combs and Donald Snygg, <u>Individual</u> <u>Behavior</u> (New York: Harper and Brothers, 1959), p. 126.

<sup>&</sup>lt;sup>11</sup>Ernst Kretschmer, <u>Physique</u> and <u>Character</u> (Translated by W. J. Sprott. New York: Harcourt, 1925).

<sup>&</sup>lt;sup>12</sup>W. H. Sheldon, S. S. Stevens, and W. B. Tucker, <u>The Varieties of Human Physique</u> (New York: Harper and Sons, Company, 1940).



A more recent investigator, Lloyd Humphreys, completed a logical-statistical study of Sheldon's work. He states that, "With respect to type concepts generally, it was suggested that types have traditionally been defined as mutually exclusive ideals. Thus, two types can never be represented in high degree in one person. Furthermore, types have been defined by relative measures so that no one is low in everything, i.e., a pigeonhole is provided for everyone. This tends to give type concepts a spurious degree of attractiveness."<sup>13</sup>

The concept of psychological types is also very old. William James recognized only two types, the "tender-minded" and the "tough-minded."<sup>14</sup> Probably the best known typology is that of Jung<sup>15</sup> whose concdpt of "introversion-extroversion" has become common knowledge.

One of the modern day typologies has been developed by Robert E. Bills who relates self-organization to the ways in which the individual views himself and others. On this basis he has roughly classified persons in terms of their

<sup>&</sup>lt;sup>13</sup>Lloyd G. Humphreys, "Characteristics of Type Concepts with Special Reference to Sheldon's Typology," <u>Psychological Bulletin</u>, LIV (May, 1957), 227.

<sup>&</sup>lt;sup>14</sup>William James, <u>Pragmatism</u> (New York: Longmans, Inc., 1907).

<sup>&</sup>lt;sup>15</sup>C. G. Jung, <u>Psychological</u> <u>Types</u> (New York: Harcourt and Company, 1923).



their perceptions of themselves and others. This he refers to as perceptual characteristics. People who are accepting of themselves and at least equally accepting of others are symbolized (++) and termed high valuing. People who are accepting of themselves but believe others in their peer group are not as accepting of themselves are symbolized (+-) and termed over valuing. People who are rejecting of themselves but who believe that others are more accepting of themselves are symbolized (-+) and termed under valuing. Finally, those who are rejecting of both themselves and others are symbolized (--) and termed low valuing.<sup>16</sup> As stated in Chapter I, Bills' typology will be employed in the present study.

<u>Studies</u>. Numerous experiments making use of various techniques have been made to test these ideas. Sullivan,<sup>17</sup> for instance, expounds the value of the behavioristic approach in working with patients. A study of behavior, as noted by the participating observer, can best determine the nature of self. He refutes the idea that the very private contents of individual existence can ever be known. For

<sup>&</sup>lt;sup>16</sup>Robert Bills, "About People and Teaching," <u>The</u> <u>Bulletin of the Bureau of School Service</u>, College of Education, University of Kentucky, XXVII (December, 1955), p. 20. <sup>17</sup>Sullivan, <u>loc. cit</u>.



this reason, it is better for the researcher to attempt to study what is within his reach--that is, how a person acts. Therefore, it is not the person, but the interpersonal situation which is to be probed.

Raimy,<sup>18</sup> Rogers,<sup>19</sup> and Combs and Snygg<sup>20</sup> prefer an individual's own words and interpretation as the guide to a structuring of the inner core of personality. In their opinion it is vital to explore the highly personal aspects, even those beneath awareness, in order to arrive at the basic motives of behavior. Nondirective counseling stems from a conviction in the validity of self-expression as a means of clarifying personal problems and reorienting the self.<sup>21</sup>

Methods other than the use of nondirective interviews to ascertain a description of the self-image include projective techniques such as used by Jersild.<sup>22</sup> He made a survey of 2,800 elementary, high school, and college students to discover primary self-concerns of the groups. Each

<sup>19</sup>Carl R. Rogers, <u>Counseling and Psychotherapy</u> (New York: Houghton Mifflin Company, 1942).

20 Combs and Snygg, loc. cit.

<sup>21</sup>Rogers, <u>loc</u>. <u>cit</u>.

<sup>22</sup>Arthur T. Jersild, <u>The Psychology of Adolescence</u> (New York: Macmillan Company, 1957).

<sup>&</sup>lt;sup>18</sup>Raimy, <u>loc.</u> cit.

student wrote two compositions entitled "What I Like About Myself" and "What I Don't Like About Myself." Contents were then categorized into topics ranked in the order of maturity and frequency. Allowing students to express themselves freely and unencumbered by any restraints has great value. as he sees it, for "the language of self-evaluation helps to reveal the terms by which young people conceptualize themselves and the standards according to which they measure themselves."<sup>23</sup> He found that the younger children tended to stress the physical aspects of life, their relationship to their families and sports. Older students more often mentioned the inner world of experience and interpersonal relationships. At all age levels there was some mention made of one's character, emotions, and relationships with people. Strang<sup>24</sup> also used compositions to get a composite of trends among adolescents with results very similar to those of Jersild.

In addition to studies which aim to clarify the concept of self among particular groups of people, there are others which seek to discover whether there is a connection between the way a person views himself and the way he looks

<sup>23</sup><u>Ibid</u>., p. 24.

<sup>24</sup>Ruth Strang, <u>The Adolescent Views Himself</u> (New York: McGraw Hill, Inc., 1957).



upon others. Berger administered an instrument containing references to self and to others to several groups of people. The correlations between attitude toward self and attitude toward others varied considerably: .36 for college (day session) students, .65 for college (evening session) students, .56 for prisoners, .69 for stutterers, and .45 for a group of Y.M.C.A. people.<sup>25</sup> Thus Berger concluded that the correlation between attitude toward self and attitude toward others is significantly different for various social groups. Philips developed a guestionnaire for the same purpose and administered it to students exclusively. A correlation of .74 showed up for mature college students and a correlation of .54 for college freshmen. On the supposition that age may influence the relationship between the two attitudes, he tested third term high school students and obtained a correlation of .67. With high school seniors the correlation was .51. From this he concluded that age was not a conclusive determinant in the relationship of the two attitudes.<sup>26</sup>

Bills' experiment was also in a nonclinical setting. He tried a different technique by asking the respondents

<sup>&</sup>lt;sup>25</sup>E. M. Berger, "The Relation Between Expressed Acceptance of Self and Expressed Acceptance of Others," <u>Journal of Social Psychology</u>, XLVI (1953), 778-82.

<sup>&</sup>lt;sup>26</sup>E. L. Philips, "Attitudes Toward Self and Others: A Brief Questionnaire Report," <u>Journal of Consulting</u> <u>Psychology</u>, XV (1951), 79-81.



not how they felt about others, but how they thought others felt about themselves. The <u>Index of Adjustment and Values</u> which he developed was the instrument employed. With college students the correlation was .56; with ninth graders, .28; with tenth graders, .50; and with eleventh graders, .46. $^{27}$ 

# Literature from Educational Administration

Overview of administrative theories. Theories related to administrative leadership have been many. Some have been useful but none has been comprehensive enough to be considered a true general theory of administrative leadership. An early approach was that which focused attention upon leader traits to explain the effectiveness of administrative leadership. Studies such as Cowley's revealed that leadership could, at least in part, be explained by the traits approach.<sup>28</sup> Although the results of these studies were limited they did, in fact, point out the possibility that leaders could be made. As an outgrowth of the traits approach there have been more recent studies

<sup>&</sup>lt;sup>27</sup>Robert E. Bills, "About People and Teaching," <u>The</u> <u>Bulletin of the Bureau of School Service</u>, College of Education, University of Kentucky, XXVII (December, 1955), 20.

<sup>&</sup>lt;sup>28</sup>W. H. Cowley, "The Traits of Face to Face Leaders," Journal of Abnormal and Social Psychology, XXVI (1931), 304-13.

employing theories of personality.

A group of researchers at the University of Florida, working on a leadership training program for several years have included as part of their project a study into many aspects of leadership personality. Extensive research reported in approximately a dozen theses has revealed some striking facts. For instance, positive relationships were shown between the personality of the administrator and the frequency of democratic practices; administrator personality and best practices; administrator personality and program development; and administrator personality and the feeling of parents toward the school.<sup>29</sup> No relationships were found between the criterion of democratic behavior and such personal factors as age, training, and experience.

In the Fall of 1957, a seminar concerned with the role of theory in educational administration was held at the University of Chicago. An outgrowth of this meeting was the publication of the several papers which had been presented. Of especial interest was the contribution of Getzels who developed a model for the study of administration as a social process. This model attempts to relate both the normative

<sup>&</sup>lt;sup>29</sup>Truman N. Pierce and E. C. Merrill, Jr., "The Individual and Administrator Behavior, <u>Administrative Behavior</u> <u>in Education</u>, ed., Ronald F. Campbell and Russell T. Gregg (New York: Harper and Brothers, 1957), p. 334.

and personal aspects of behavior as is evident in the following statement.

We may mention first a very simple derivation, that is. that the administrative relationship always functions at two levels of interaction. The first level derives from the particular offices or statuses in the social system and is determined by the nature of the roles involved in the interaction. This is, of course, the nomothetic dimension of our model. The second level of interaction derives from the particular people or individuals in the social system and is determined by the personalities involved in the interaction. That is, of course, the idiographic dimension of our model. You will recall that the publicly prescribed nomothetic relationship is enacted in two separate private idiographic situations -- one by the subordinate and one by the superordinate. The functioning of the administrative process will, we said. depend on the nature of the overlap -- i.e.. on the relative congurance or discrepancy -- between the separate perceptions of the expectations in the two situations.

Daniel Griffiths, professor of School Administration at Teacher's College, Columbia University, considers the foremost activity of a school administrator that of talking and listening. In a daily routine of conferences, meetings with teachers and pupils in the office or in the hall, calling parents, et cetera, it is apparent that the atmosphere which surrounds a school administrator is verbal.<sup>31</sup>

<sup>31</sup>Daniel E. Griffiths, <u>Human Relations in School</u> <u>Administration</u> (New York: Appleton-Century-Crofts, Inc., 1959), p. 71.

<sup>&</sup>lt;sup>30</sup> Jacob W. Getzels, "Administration as a Social Process," <u>Administrative Theory in Education</u>, ed. Andrew W. Halpin (Chicago: Midwest Administration Center, University of Chicago, 1958), p. 159.

Roethlisberger supports this statement when he says, "It seems obvious to me . . . that the higher the executive goes in an organization the more important it becomes for him, if he is to handle effectively one aspect of his job, to deal competently with his verbal environment."<sup>32</sup>

It is interesting to note that earlier writers, such as Hopkins,<sup>33</sup> often paralleled the frequent interaction of administrators with other school personnel as "democratic administration." In the year 1941 he wrote, "Above everything else democratic administration is a cooperative undertaking in which everyone participates to the extent of his ability through the interactive process on the belief that those who must abide by policies should participate in making them."<sup>34</sup>

A more recent writer, Thomas Gordon, supports this view as he states: "One of the aims of the group-centered leader is to create in the group a <u>psychological climate of</u> <u>acceptance</u>,<sup>35</sup> understanding, and safety. When the leader has been successful in accomplishing this aim, and members

<sup>33</sup>L. Thomas Hopkins, <u>Interaction The Democratic</u> <u>Process</u> (New York: D. C. Heath and Company, 1941).

<sup>34</sup><u>Ibid.</u>, p. 406.
<sup>35</sup><sub>Emphasis</sub> supplied.

<sup>&</sup>lt;sup>32</sup>Fritz Roethlisberger, "The Executive's Environment is Verbal," <u>Human Relations in Administration</u>, ed. Robert Dubin (New York: Prentice-Hall, 1951), p. 306.
begin to feel and experience this unique group climate, they demonstrate remarkable changes in their participation and in their verbal interactions  $^{36}$  with other members."<sup>37</sup>

Another approach to understanding administrative leadership stems from the work of Bills and Hopper at the University of Kentucky during an interdisciplinary research program which was undertaken under the auspices of the Southern States C.P.E.A.<sup>38</sup> These theorists, basing their thinking on the perceptual psychology of Bills, generalized that the successful school administrator is one who. because of his perceptions of himself and others, is able to maintain adequate and satisfying relationships with people; is a person who must make few value judgments; thinks in cooperative terms: makes few comparisons; and gives much thought to the things that he does. The researchers at Kentucky have set forth the following list of factors which partially determine the nature of the administrator's performance in education -- physical needs of the leader. values. concepts of self. concepts of others, leadership, and group membership.

<sup>36</sup> Emphasis supplied.

<sup>&</sup>lt;sup>37</sup>Thomas Gordon, Group-Centered Leadership: <u>A Way of</u> <u>Releasing the Greative Power of Groups</u> (Boston: Houghton Mifflin Company, 1955), p. 257.

<sup>&</sup>lt;sup>38</sup>Robert L. Hopper and Robert E. Bills, "What's a Good Administrator Made Of?" <u>The School Executive</u>, LXXXIV (March, 1955), 93-95.

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Importance is given to considering these concepts in terms of the meaning they hold for the individual; they are personal meanings which represent the person's own particular feelings, attitudes, and beliefs and serve to motivate his behavior. No doubt, the most fundamental concepts of an administrator are his perceptions of himself and others, since this, for the most part, sets the scene for his "human relations behavior."

The studies at Kentucky were premised on the following assumptions regarding leadership: "(1) behavior grows out of perceptions; (2) if the knowledge of a person's perceptions is available, it is possible to infer certain of his perceptions; (3) it is not possible for a person to perform in a manner inconsistent with his perceptions; (4) the individual is what he performs and what he performs he is; (5) the starting point in analyzing and describing the behavior of an administrator is the determination of his perceptions as related to himself and to his job; (6) and that changed perceptions would be expected to change behavior. "<sup>39</sup>

<sup>&</sup>lt;sup>39</sup>John Lewis Forbes, "A Theory of Administrative Leadership for Contemporary Education" (unpublished Doctoral Thesis, Michigan State University, East Lansing, 1958).

Studies. Although no previous study has attempted to relate personality factors of principals to the frequency of their interaction with staff and students. a somewhat related study was undertaken at the University of Florida by George H. Goodwin. His research, a part of the Florida Kellogg studies was partly concerned with relating the degree of teacher participation in professional activities to the operating patterns of principals in both elementary and secondary schools. Principals were classified as authoritarian or "democratic" by use of the Florida-Kellogg Authoritarian (F-KA) Scale and the Florida-Kellogg Democratic (F-KD) Scale. Although Goodwin was unable to find a statistically significant difference in the degree of teacher participation in professional activities in the two groups of schools. the scores were higher in both elementary and secondary schools having "democratic" principals. He concluded that although, undeniably, principals have an effect on teacher behavior, it would be really very apparent only with principals who might be extremely authoritarian or "democratic." He also pointed out that personal factors enter the picture and that no principal could possibly evoke the right responses in all teachers. 40

<sup>&</sup>lt;sup>40</sup>George H. Goodwin, "A Study of Certain Teachers Activities and Human Relations with Special Reference to Working Patterns of School Principals" (unpublished Doctoral thesis, University of Florida, Gainesville, 1955), p. 75.



Another interesting study, sponsored by the C.P.E.A. was undertaken by Jenkins and Blackman at Ohio State University. In analyzing administrative behavior it was hypothesized that the motivational-emotional make-up of the administrator affects the atmosphere he creates for the staff and that, in turn, this atmosphere is related to the frequency of communications among the staff and between the staff and the administration. The subjects were the personnel in fifty elementary schools in a large industrial city in Ohio. The personality of the principals was measured with the Runner Personality Analysis Test (Tenth Revision) while the frequency of communication was tested by three direct questions in the teacher questionnaire. A significant relationship was found between the administrator's personality and the pattern of communications in the school. Other factors, such as age, sex, experience, and recency of training of the principal were found to be unrelated to teachers' reactions.<sup>41</sup> The communication pattern of the principal was also included in a study conducted by Clark who tested ten categories of behavior of high school principals: appraising effectiveness, communicating, coordinating administrative

<sup>&</sup>lt;sup>41</sup>David H. Jenkins and Charles A. Blackman, <u>Antecedents</u> and <u>Effects of Administrative</u> <u>Behavior</u> (Columbus: The Ohio State University Press, 1956).

functions, determining roles, involving people, making policy, setting goals, using the educational resources of the community and working with community leadership and showing consideration. Co-workers ratings of these categories were compared with jury ratings of the over-all effectiveness of the principal. The principals rated as effective were found to have a higher frequency of behaviors categorized as communicating and showing consideration than did the ineffective administrators. Clark concluded that the focus on the behavior or activity pattern of administrators was a very fruitful approach for educational administrative practice, training, and research.<sup>42</sup>

#### Summary

Literature in the fields of Psychology and Educational Administration were reviewed for the purpose of providing a background for the present study. In Psychology, the concepts of "self," the development of theories and of typologies illustrate the evolution of personality concepts while the studies contribute empirical evidence which tests these theories. In reviewing theories of Educational Administration,

<sup>&</sup>lt;sup>42</sup>Dean O. Clark, "Critical Areas in the Administrative Behavior of High School Principals" (unpublished Doctoral thesis, The Ohio State University, Columbus, 1956).

an attempt was made to present to view the frequent concern with aspects of personality. Finally, the studies in Educational Administration illustrate attempts to study the relationship of several variables to the personality makeup of the school administrator.



#### CHAPTER III

#### PROCEDURE AND METHODOLOGY OF THE STUDY

#### Identification of the Population and the Sample

The subjects of the present study were the principals, teachers, and pupils (seniors only) in a group of high schools located in various parts of the United States. The high schools, built and occupied during the years 1954-1959, were of varying design, personnel organization, and size. There was no evidence taken in the present study that makes possible the comparison of the subjects with the universe of high school principals, teachers, and pupils in the United States. It must be noted, therefore, that the population of this exploratory study is limited to the high schools involved, even though the nature of the data is of interest to many in the field of school administration.

Initial selection of schools. In order to locate representative architectural examples of both compact and campus schools of varying organization and size in various types of community settings, it was necessary to employ several methods of exploration. The initial procedure was to send a letter to state departments of education, to leading school building architects and to noted school building consultants introducing them to the project.<sup>1</sup> These persons were asked to cooperate by sending to the investigators lists of schools, within their respective states or areas, which they felt met the criteria, as defined in the letter. In order to obtain this data, a simple form was enclosed which provided for the listing of the name of the high school, its location, and the name of the superintendent of the local school district.<sup>2</sup> The architects and consultants were also asked to make recommendations on a nationwide basis. In addition to the letter and reply form, the state departments were also sent a copy of the research proposal. These materials were mailed early in April, 1960, and responses were received, for the most part, by the end of the month.

A second procedure was also employed for identifying schools. This consisted of a review of recent issues of pertiment professional journals.<sup>3</sup> A listing was compiled of schools receiving awards or citations for the quality or uniqueness of their designs. Table I depicts the number of schools obtained by the persons consulted as well as the

<sup>&</sup>lt;sup>1</sup>See Appendix A, p. 121.

<sup>&</sup>lt;sup>2</sup>See Appendix A, p. 122.

<sup>&</sup>lt;sup>3</sup>Journals reviewed were: <u>The Overview</u>, <u>Architectural</u> <u>Review</u>, <u>American School Board Journal</u>, <u>The Nation's Schools</u>, <u>American School and University</u>, and the <u>Architectural Forum</u>.

journals.

## TABLE I

# INITIAL SELECTION OF SCHOOLS

Schools recommended by respondents	261
Schools identified in journals	171
Total	432
Less-schools obtained by both sources	31
Actual number of different schools obtained	401

Early in May, 1960, each of the schools thus far selected was mailed an introductory letter<sup>4</sup> and a questionnaire designed to gather basic data necessary for the purpose of obtaining a more refined selection.<sup>5</sup> Following this, a letter was sent to all state departments of education which listed the schools selected and included a copy of the study proposal.<sup>6</sup> Table II describes the process of mailings and the responses obtained by the end of May, 1960.

> <sup>4</sup>See Appendix A, p. 123. <sup>5</sup>See Appendix A, p. 124. <sup>6</sup>See Appendix A, p. 130.

#### TABLE II

MAILINGS AND RESPONSES OF INITIALLY SELECTED SCHOOLS

Total number of initially selected schools	401
Schools with incorrect address	6_
Total number of schools contacted	395
Number of schools responding	298
Number of schools not desiring to take part in study	17
Number of schools desiring to take part in study	281
Per cent of schools responding	75.6
Per cent of negative returns	5.7
Per cent of positive returns	94.3

On the basis of an examination of returned questionnaires, three types of buildings and utilizations were selected and reported. These are depicted in Table III.

#### TABLE III

DESIGN UTILIZATION AND NUMBER OF INITIALLY SELECTED SCHOOLS

Design	<b>Utilization</b>	Number
Compact Compact Compact Transitional Transitional Transitional Campus Campus Campus	School within a school Grade Subject School within a school Grade Subject School within a school Grade Subject	5 4 125 1 2 59 8 4 59
	N =	267



A further examination of data revealed schools which. for one reason or another. did not meet the criteria. These are described in Table IV.

# TABLE IV

SCHOOLS FAILING TO MEET INITIAL CRITERIA

Initia	lly selected schools total	267
Less:	Schools too new, too old or too small	67
	Junior high schools	10
	Technical, parochial or elementary schools	8_
	Remaining schools	182

A detailed study of the questionnaire returned from the remaining high schools was then undertaken by the College of Education research staff. This resulted in narrowing further selection to a group of 77 high schools.

Table V lists the name and location of the schools visited.

#### TABLE V

Name of High School City State 1. Hueytown High School Birmingham Ala. 2. Robert E. Lee High School 3. Catalina High School Montgomery Ala. Tuscon Ariz. 4. Sunnyside High School Tuscon Ariz.

HIGH SCHOOLS VISITED PRIOR TO FINAL SELECTION

Table V (continued)

	Name of High School	City	State
5.	Glendora High School	Azura	Cal.
6.	B <b>ellflower</b> High School	Bellflower	Cal.
7.	Mayfair High School	Bellflower	Cal.
8.	Westmore High School	Daly City	Cal.
9.	Narbonne High School	Los Angeles	Cal.
10.	Hiram Johnson High School	Sacramento	Cal.
11.	Hillsdale High School	San Mateo	Cal.
12.	East Hartford High School	East Hartford	Conn.
13.	Andrew Warde High School	Fairfield	Conn.
14.	Manchester High School	Manchester	Conn.
15.	Old Saybrook Junior-Senior		
-	High School	Old Saybrook	Conn.
16.	Newark Senior High School	Newark	Del.
17.	Columbus High School	Columbus	Ga.
18.	Borah High School	B <b>oise</b>	Idaho
19.	Maine Township West High		
•	School	Des Plaines	I11.
20.	Niles Township High School	Skokie	I11.
21.	Keokuk Community High School	Keokuk	Iowa
22.	Shawnee-Mission East High		
	School	Merriam	Kan.
23.	Franklin County High School	Frankfort	К <b>у.</b>
24.	Duachita High School	Monroe	La.
25.	N. Hagerstown High School	N. Hagerstown	Md.
26.	S. Hagerstown High School	S. Hagerstown	Md.
27.	Dearborn High School	Dearborn	Mich.
28.	Kimball High School	Royal Oak	Mich.
29.	Greenville High School	Greenville	Miss.
30.	Van Horn High School	Kansas City	Mo.
31.	Kennett High School	Kennett	Mo.
32.	River View Gardens Senior		
	High School	St. Louis	Mo.
33.	Helena High School	Helena	Mont.
34.	Columbus High School	Columbus	Neb.
35.	Garringer High School	Charlotte	N.C.
36.	West Charlotte High School	Charlotte	N.C.
37.	Fayetteville High School	Fayetteville	N.C.
38.	Ragsdale High School	Greensboro	N.C.
39.	Mandan High School	Mandan	N.D.
40.	Winnacunnet High School	Hampton	N.H.
41.	Hanover Park Regional High		
	School	Hanover	N.J.

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	Name of High School	City	State
42.	River Dell Regional High		
	School	Oradell	N.J.
43.	Passaic Senior High School	Passaic	N.J.
44.	Sandra High School	Albuquerque	N.M.
45	Horace Greelev High School	Chappaqua	N.Y.
46.	W. Tresper Clarke High		
	School	E. Meadow, L.I.	N.Y.
47.	Hudson Falls Junior-Senior	•	
	High School	Hudson Falls	N.Y.
48.	John Jay High School	Katonah	N.Y.
49	Massena Central High School	Massena	N.Y.
50.	Shaher Junior-Senior High		
<i>_</i>	School	Newtonville	N.Y.
51.	Penfield High School	Penfield	N.Y.
52.	Scaradale High School	Scaradale	N.Y.
53.	Linton High School	Schenectady	N.Y.
54.	Svosset High School	Svosset	N.Y.
55.	Glenwood Senior High School	Canton	Ohio
56.	Fairmont High School	Kettering	Ohio
57.	Norman High School	Norman	Okla.
58.	Northwest Classen High		
<i>J</i> <b>UI</b>	School	Oklahoma Citv	Okla.
59.	Bend High School	Bend	Ore.
60.	Woodrow Wilson High School	Portland	Ore.
61.	Hempfield High School	Greensburg	Pa.
62.	A.C. Flora High School	Columbia	S.C.
63.	Greer High School	Greenville	S.C.
64.	Lester High School	Memphis	Tenn.
65.	Abilene High School	Abilene	Tex.
66.	Bellaire Junior High School	Bellaire	Tex.
67.	San Angelo High School	San Angelo	Tex.
68.	George Washington High	<b>C</b>	
•••	School	Dansville	Va.
69.	Hampton High School	Hampton	Va.
70.	Middlebury High School	Middlebury	Vt.
71.	Mark Morris High School	Longview	Wash.
72.	Mercer Island High School	Mercer Island	Wash.
73.	Mt. Rainier High School	Seattle	Wash.
74.	Seattle High School	Seattle	Wash.
75.	Shoreline High School	Seattle	Wash.
76.	Shadde Park High School	Spokane	Wash.
77.	Brookfield High School	Brookfield	Wisc.
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During the months of June, July, and August, 1960, Michigan State staff members visited each of the 77 schools. During their visits they accomplished several objectives. First, they verified the reported design and utilization of the building. Secondly, they interviewed available administrative officers, reviewing and discussing all responses to the questionnaire which the school had previously submitted.

Following this, they recorded changes in personnel and anticipated changes in the size of enrollments. Each staff member recorded his personal perceptions of the school and noted factors which might either enhance or lessen the likelihood of its presence in the finally selected sample.

Final selection of schools included in the study. In September, 1960, a final review was made of the data that were assembled from the visitations. It was noted that the number of campus-designed schools of varying organizational patterns were limited and so, essentially, compact schools were chosen to complement the group of campus schools. The finally selected schools numbered 34. Because of the small available number of campus schools, the selection also resulted in a regional bias since schools tended to cluster in the East and West coastal areas. The state and the regional distribution of schools is noted in Table VI.

# TABLE VI

# STATE AND REGIONAL DISTRIBUTION OF SELECTED SCHOOLS

Region	State	No. of Schools
North East	Connecticut New Jersey New York Pennsylvania Vermont Total Percentage	1 4 1 -1 8 23.5
South	Alabama Maryland North Carolina Oklahoma South Carolina Texas Virginia Total Percentage	1 2 1 1 1 1 23.5
North Centra	l Illinois Michigan Missouri Nebraska North Dakota Ohio Wisconsin Total Percentage	1 2 1 2 1 2 2 26.5
West	Arizona California Oregon Washington Total Percentage	1 4 1 <u>3</u> 9 26.5

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## The Instruments

Determining perceptual classification. Robert Bills' Index of Adjustment and Values (adult and high school senior form), as revised by Karl T. Hereford, was used to classify personnel into the four perceptual types, ++, +-, -+, and --, in terms of their acceptance of self and others. The Index consists of a list of 49 trait words which stem from Allport's list of 17,973 traits. From it, 124 words were selected on the basis of frequency in client-centered interviews and self-concept definitions. The final choice of the 49 words was the result of item analysis and test-retest procedures on 49 students.

To assess reliability, this Index was administered to 237 Kentucky University students. The corrected split-half method applied to self-acceptance (Column II) scores provided a correlation of .91. The same method used on the selfacceptance scores (Column II) for "others" resulted in a correlation of .94. A test-retest reliability study yielded a correlation of .79 for self-acceptance of "self" and .65 for "others."<sup>7</sup>

The validity of the indexes have been tested in

<sup>&</sup>lt;sup>7</sup>Robert E. Bills, <u>Manual for the Index of Adjustment</u> and <u>Values</u> (Auburn, Alabama: Alabama Polytechnic Institute, 1959), p. 54.



various ways. Three groups of students at the University of Kentucky completed the "self" Index and were tested with the <u>Phillips Attitude Toward Self and Others Questionnaire</u>, yielding a correlation of .24, significantly different from zero at the .01 level; and the <u>California Test of Personality</u>, yielding a correlation of .23, significant at the .05 level.<sup>8</sup>

Among the evidences of validity offered by Bills is the group of leadership studies in which superintendents named their most successful principals and principals named their most successful teachers. In these studies a statistically significant number of ++ persons were picked in each case.<sup>9</sup>

In revising the index for use in the Project 918 instrumentation, Hereford simply revised the instructions in such a way as to make the index as self-administering as possible for use with large numbers of both teachers and students. The name of the index was changed to Personal Characteristics Check-List so that it would in no way appear threatening to the subjects.<sup>10</sup>

The fact that this revision was not formidable for

<sup>&</sup>lt;sup>8</sup><u>Ibid</u>., p. 64.
<sup>9</sup><u>Ibid</u>., p. 68.
<sup>10</sup>See Appendix B, pp. 143, 152.

persons to handle is evidenced by the fact that the new form was administered to several college students, including a foreign student, who readily admitted that it was easy to do. A sample of the instructions for each of the two sections, Personal Characteristics and Characteristics of Others, follows. A copy of Bills' instructions appears in the Appendix<sup>11</sup> and may serve as a comparison for the revision presented here.

Teachers and students have many personal traits. It would help us develop a better understanding of your school, if you would describe yourself as you believe you really are. Please remember that all of your responses are kept in strictest confidence. On the next two pages are 49 words which are commonly used to describe people. Try to describe yourself as accurately as possible by completing the two columns of words.

<u>In Column I</u>, please write by each word how much of the time you believe that you are this kind of person. Choose the one response (1 through 5) which best describes your belief about yourself. When you have completed all 49 words in Column I, then go to Column II.

In Column II, indicate for each of the 49 words <u>how you feel</u> about yourself in terms of each trait. Choose the one response (1 through 5) which best describes your feeling. EXAMPLE: academic <u>4</u> <u>4</u>. In the example, the person responding has said in effect:

In Column I: I am an <u>academic</u> kind of person a good deal of the time (4); and in Column II: I <u>like</u> myself in this respect (4).

<sup>11</sup>See Appendix B, p. 158.

<u>Characteristics of Others Check-List</u>. Since a high school is made of people who work and study together, our understanding of your school would be more complete if we could have your beliefs about the kinds of people in your school.

Please think about the persons whom you feel are your friends. Although your friends may be somewhat different in many ways, try to think of the "average person" among your friends; or think of "your friends in general." Then try to put yourself in the place of this "average friend" and fill out the same two-column check-list that you completed for yourself.

<u>Measuring the frequency of interaction</u>. In order to obtain a measure of the frequency of the interaction of school personnel, a rating scale was devised which was entitled, The Personal Contact Checklist.<sup>12</sup> This instrument asked teachers and students to indicate how frequently they discussed either professional concerns (in the case of teachers) or school and/or personal problems (in the case of pupils) with each of a number of designated school personnel. Of interest in the present study was item one which deals with the frequency of interaction with the principal. Following the recommendations of Barr, Davis and Johnson,<sup>13</sup> five steps were employed in order to secure the proper

<sup>&</sup>lt;sup>12</sup>See Appendix B, p. 141, 150.

<sup>&</sup>lt;sup>13</sup>Arvil S. Barr, Robert A. Davis, and Palmer O. Johnson, <u>Educational Research and Appraisal</u> (New York: J. B. Lippincott Company, 1953), p. 109.



distinction in judgment. The steps, in decreasing order of value, were: (1) Two or three times each day, (2) nearly every day, (3) frequently, (4) occasionally, and (5) rarely. Although more refined methods could have been employed, the necessity of restricting the length and complexity of the entire Project 918 instrumentation justified the use of this approach. Another consideration was the large number of subjects which, it is said, makes for the most dependable results when using a scale of this type.<sup>14</sup>

The measurement of other variables possibly related to the frequency of interaction. Two groups of variables were studied in relation to the dependent variable, frequency of interaction. These were: (1) Variables having to do with the individual teachers and pupils, and (2) those associated with the schools themselves.

The first group of variables were measured by means of the questionnaires included in the instrumentation. Teachers were asked to list the number of years on the present staff, years of teaching experience, sex, marital status, and subjects taught. Pupils were to list their grade, sex, and the socio-economic level of their parents. The socio-economic level was measured by means of the

14<u>Ibid</u>.

Duncan Socio-Economic Index.<sup>15</sup> It included the following questions:

What is your father's occupation (if deceased, what was it)?

- a. Does he get paid by salary?
- b. If yes, who does he work for?
- c. Does he own a business?
- d. Does he have any people under him?
- e. If yes, about how many?

The second group, that is, the institutional variables, included size, design and organization. Size was defined in terms of the number of pupils enrolled. The design of school facilities fell into two groups or categories; campus schools were those having two or more unattached buildings, while compact schools were those built on one or more levels with all areas under one roof. The physical organization of school staff and pupils also fell into two general categories, the first of which was about subject or departmental areas. A second group of schools were organized on the school-within-school plan. Basically, the schoolwithin-school organization divided a rather large student body into smaller units which are microcosms of the larger

<sup>&</sup>lt;sup>15</sup>Otis Dudley Duncan, "A Socio-Economic Index For All Occupations" (Chicago: Population Research and Training Center, 1960), p. 7. (Mimeographed.)



pupil population. Usually, the pupils undertake the majority of their subject within the "little school" under a faculty that also remains, primarily, within the unit. Likewise, most special areas, such as, laboratories and gymnasiums are duplicated in each unit.

## Administration of the Instruments

Staff orientation and testing. In November, 1960, each of the 34 high schools in the study was visited by a Michigan State University staff member. By means of prior arrangement, each school had scheduled a faculty meeting and a two-hour block of time for the completion of the instruments. During the faculty meetings, which took place previous to the date of testing, the project was discussed so as to familiarize all professional staff members with its objectives and thus ellicit their cooperation and support. It was emphasized with the faculty and they, in turn, were asked to emphasize with their students the fact that all information would be kept in strict confidence and seen only by the research team. Following these directions, the faculty members were asked to complete their own instruments at the same time as the students. In most cases this took place the following morning.

The actual administration of the study instruments presented no major difficulties since (1) the faculty members



had been familiarized with the student forms, and (2) explicit instructions and explanations were published with the test. The persons supervising students during the completion of the instruments reported that all but a very few students completed the entire group of instruments in approximately 75 minutes.

<u>Treatment of the data</u>. After the completion of testing, Michigan State University persons supervised the packaging of all booklets which were then sealed and later mailed to the East Lansing campus. Upon receipt of the material, code numbers identifying the schools and a consecutive numbering system for all teachers, students, and administrators was employed and each booklet was thus stamped.

At this point in the project it was determined that initial funds were lacking for the immediate tabulation of all 38,000 booklets; therefore, a 25 per cent random sample was extracted from each school. In drawing the necessary sample, the student numbers were selected by the use of a standard table of random numbers.<sup>16</sup>

The selected instruments were then hand tabulated 17

<sup>&</sup>lt;sup>16</sup>Wilfrid J. Dixon and Frank J. Massey, Jr., <u>Intro-</u> <u>duction to Statistical Analysis</u> (New York: McGraw-Hill Book Company, 1957), p. 366:

<sup>&</sup>lt;sup>17</sup>Detailed information concerning scoring of instruments may be found in Appendix  $\mathbf{K}_{r}$ , present

by clerical assistants not otherwise involved in the study. After the completion of this procedure, the data were coded, key-punched onto IBM cards, and subsequently machine tabulated. In the present study both machine and hand tabulations were employed in the analysis of data since it was impossible to compile all the needed information by means of one technique alone.

The classification of schools after the principals' booklets had been tabulated. The high schools in the study were classified according to the perceptual classification of the chief administrator; thus, there were two groups of schools to be employed in the study. As stated in the first chapter, the principals were to have tenure in their present position for at least one year prior to the date of testing.

As can be seen in Table VII, two principals did not meet the criteria of at least one year tenure and two principals fell into the -+ category. As a result, the study was further delimited to the remaining thirty schools: 13 ++ schools and 19 +- schools.

On the basis of Bills' instrument, <u>The Index of</u> <u>Adjustment and Values</u>, the teachers and pupils in both groups of schools were classified +\*, +- or -+. The few -- individuals were not included in the study. The perceptual classification of schools and personnel became the independent



variable in the design and the measure of the frequency of interaction for both teachers and pupils the dependent variable. The analysis of data for each group was undertaken separately except for the possibly related variables to be examined at the outset.

Table VII lists the schools together with the classification and tenure of the principal.

#### TABLE VII

# SCHOOL NUMBER, PRINCIPAL'S PERCEPTUAL CLASSIFICATION AND YEARS IN PRESENT POSITION

School	Number	Classification	Years in Position
1		++	3
2		++	4
3		++	5
4		++	1
5		++	3
6		++	5
7		++	1
8		+-	2
9		+-	5
10		+-	5
11		<b>+-</b>	5
12		++	5

School Number	Classification	Years in Position
13	-+	5
14	+-	5
15	+-	0
16	++	5
17	-+	5
18	+-	3
19	++	0
20	+	1
21	+-	5
22	+-	1
23	+-	5
24	++	5
25	<b>+-</b>	1
26	+-	5
27	++	5
28	+-	5
29	+-	5
30	+-	5
31	++	3
32	+-	5
33	+-	3
34	+- Totals	5 ++ 13 +- 19 +_2
		N = 34

Table VII (continued)
#### Hypotheses To Be Tested

The major hypotheses stated in Chapter I were tested by means of several operational sub-hypotheses. The hypotheses listed below are in the research or directional form. Since the statistical procedure is concerned with the testing of the "null" hypothesis or the hypothesis that there is no true difference between the variables being tested, this form will be employed in the analysis chapter.

The first hypothesis concerns itself with the effect of the administrator's perceptual classification on the frequency of interaction with teachers.

- H 1: There is a relationship between the perceptual classification of the principal and the level of principalteacher interaction.
  - H 1a: High valuing (++) teachers interact more with high valuing (++) principals than they do with over valuing (+-) principals.
  - H 1b: Over valuing (+-) teachers interact more with high valuing (++) principals than they do with over valuing (+-) principals.
  - H 1c: Under valuing (-+) teachers interact more with high valuing (++) principals than they do with over valuing (+-) principals.

The second hypothesis concerns itself with effect of the teachers' perceptual classifications on the frequency of their interaction with the principal.

H 2: There is a relationship between the perceptual classification of the teacher and the level of principalteacher interaction.

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- H 2a: High valuing (++) teachers interact more than over valuing (+-) teachers in schools having high valuing (++) principals.
- H 2b: High valuing (++) teachers interact more than over valuing (+-) teachers in schools having over valuing (+-) principals.
- H 2c: High valuing (++) teachers interact more than under valuing (-+) teachers in schools having over valuing (++) principals.
- H 2d: High valuing (++) teachers interact more than under valuing (-+) teachers in schools having over valuing (+-) principals.
- H 2e: Under valuing (-+) teachers interact more than over valuing (+-) teachers in schools having high valuing (++) principals.
- H 2f: Under valuing (-+) teachers interact more than over valuing (+-) teachers in schools having over valuing (+-) principals.

The third hypothesis concerns itself with the effect

of the administrator's perceptual classification on the fre-

quency of his interaction with pupils.

- H 3: There is a relationship between the perceptual classification of the principal and the level of principalpupil interaction.
  - H 3a: High valuing (++) pupils interact more with high valuing (++) principals than they do with over valuing (+-) principals.
  - H 3b: Over valuing (+-) pupils interact more with high valuing (++) principals than they do with over valuing (+-) principals.
  - H 3c: Under valuing (-+) pupils interact more with high valuing (++) principals than they do with over valuing (+-) principals.

The fourth hypothesis concerns itself with the effect



and a local day of the

of the pupils' perceptual classifications on the frequency

of their interaction with the principal.

- H 4: There is a relationship between the perceptual classification of the pupil and the level of principal-pupil interaction.
  - H 4a: High valuing (++) pupils interact more than over valuing (+-) pupils in schools having high valuing (++) principals.
  - H 4b: High valuing (++) pupils interact more than over valuing (+-) pupils in schools having over valuing (+-) principals.
  - H 4c: High valuing (++) pupils interact more than under valuing (-+) pupils in schools having high valuing (++) principals.
  - H 4d: High valuing (++) pupils interact more than under valuing (-+) pupils in schools having over valuing (+-) principals.
  - H 4e: Under valuing (-+) pupils interact more than over valuing (+-) pupils in schools having high valuing (++) principals.
  - H 4f: Under valuing (-+) pupils interact more than over valuing (+-) pupils in schools having over valuing (+-) principals.

#### Statistical Methods To Be Employed

In order to test the hypotheses, the data must be analyzed by means of appropriate statistical techniques. The reliability of the interaction instrument will be determined by a correlation technique. After determining the reliability, the interaction component will be analyzed in terms of the several possibly intervening variables by

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means of a non-parametric technique such as the chi-square method. If any of these variables are found to affect interaction, proper control will be made. Upon the determination and control of these variables, the hypothesized relationships between perceptual classification and the frequency of interaction will be tested with the student's "t" mean analysis.

The phi correlation coefficient; reliability. The phi coefficient and the maximal phi coefficient were selected to test the reliability of the measure of frequency of inter-This is, essentially, a test of item homogeneity. action. The phi coefficient is actually a variation of the Pearson product-moment coefficient of correlation. This statistic does not require the assumption of a normal distribution. It does, however, require that the distribution be fairly symmetrical and unimodal. Because of the use of a  $2 \times 2$ table, the phi coefficient has serious restrictions in size, thus it should be interpreted in light of the maximal phi The maximal phi is often used in test-item correpossible. lations because it more clearly represents the intrinsic relationship between two variables when the error of measurement is removed.<sup>18</sup>

<sup>&</sup>lt;sup>18</sup>J. P. Guilford, <u>Fundamental Statistics in Psychology</u> and <u>Education</u> (New York: McGraw-Hill Book Company, 1956), p. 314.



<u>The chi-square</u>. When research data consists of frequencies which fall into discrete categories, the  $x^2$  test may be used to determine the significance of differences between two groups. Therefore, groups of high and low interactors will be examined in terms of the several possibly related variables. The chi-square test assumes independence among single responses, theoretical or expected frequencies of adequate size, the use of frequency data and adequate categorizing.<sup>19</sup>

<u>The student's</u> "<u>t</u>". The data that relates to the testable hypotheses appears as mean scores for each of the classified groups. In order to employ the student's "t" test of significance a number of statistical assumptions should be met. The observations must be independent, the populations must be normally distributed and must have the same variance. This statistic will be employed in testing the hypotheses since the data appear to meet these conditions. The "t" is noted as the most powerful test used to reject the null hypothesis when it should be rejected.<sup>20</sup>

<sup>20</sup>Dixon and Massey, <u>op</u>. <u>cit</u>., p. 123.

<sup>&</sup>lt;sup>19</sup>Allen L. Edwards, <u>Statistical Methods for the</u> <u>Behavioral Sciences</u> (New York: Rinehart & Company, Inc., 1957), p. 366.

Level of significance. The .05 level of significance was set for the rejection of the null hypothesis. This level was chosen as appropriate for the present study because of the fact that it is exploratory in nature.



#### CHAPTER IV

### THE ANALYSIS OF DATA

The analysis of data presented in this chapter is logically presented in five sections. First, the test of the reliability of the measure of the dependent variable; second, the tests of the relationship of the personal and organizational variables concerning teachers and pupils as they may affect the frequency of interaction; third, the reclassification of the groups of schools; fourth, the tests of the hypotheses for teacher data and for pupil data; fifth, the summary of the results of the tests of the hypotheses.

# Testing for Item Correlation; Reliability

Two random samples of both pupils and teachers were selected with N = 50 and N = 100. The measure for the frequency of the interaction with the principal was then correlated with the sum of the scores for interaction with other school personnel. Both the phi coefficient and the phi maximal coefficient are reported in Table VIII.



## CORRELATION OF TEACHER-PRINCIPAL INTERACTION MEASURE WITH INTERACTION SCORE (TOTAL) FOR OTHER PERSONNEL

TABLE VIII

Group:	N	rø	rø max.
Teachers	50	• 30	•72
	100	• 26	•71

The same procedure was applied to pupils as listed in

# Table IX.

### TABLE IX

CORRELATION OF PUPIL-PRINCIPAL INTERACTION WITH INTERACTION SCORE (TOTAL) FOR OTHER PERSONNEL

Group:	N	۴ø	<sup>r</sup> ø max.
Pupils	50	• 15	.63
	100	• 36	.84

Inspection of Tables VIII and IX indicate, as expected, that the maximal phi coefficient is much greater than the observed phi coefficient. Since neither  $r_{0}$  max. approaches .90, there is admittedly some limitation in the use of the measure.



#### The Relationship of Personal Variables of Teachers to the Frequency of Teacher-Principal Interaction

The personal variables possibly affecting the frequency of principal-teacher interaction will be tested by means of the chi-square technique described in Chapter IV. Each of the possible relationships will be stated in the null form. The first hypothesis used to test the relationship of personal variables is:

H<sub>o</sub>: There is no statistically significant difference between the proportion of male and female teachers who indicate that they are low or high interactors.

Table X shows the distribution of sexes for a randomly selected group of very high interactors and a group of very low interactors.

TABLE X

Teachers	N	Se	ex	Total
		Male	Female	
Low Interactors	95	54 (56.3)	41 (38.7)	95
High Interactors	84	52 (49.7)	<u>_32</u> (34.3)	84
Totals	179	106	73	179

CHI SQUARE TEST OF SIGNIFICANCE OF DISCREPANCY OF THE NUMBER OF LOW AND HIGH INTERACTING TEACHERS REPORTED BY MALE AND FEMALE TEACHERS



The test demonstrated that the distribution of frequencies was not significantly different from chance, and the null hypothesis was accepted. Therefore, it is concluded that the group of low and high interacting teachers did not differ in the proportion of men and women.

The second hypothesis relating to personal variables of teachers is:

H<sub>o</sub>: There is no statistically significant difference between the proportion of married and single teachers who indicate that they are low or high interactors.

Table XI depicts the distribution of married and single teachers for a randomly selected group of very high interactors and a group of very low interactors.

### TABLE XI

CHI S	QUARE TEST OF NUMBER OF LOW REPORTED BY	SIGNIFIC AND HIGH MARRIED	ANCE OF I INTERAC AND SING	DISCREPANCY OF TING TEACHERS LE TEACHERS	THE
Teachers	i 1	N	Marital	Status	Tota

Teachers	N Marita		Status	Total
		Married	Single	
Low Interactors	95	72 (73.8)	23 (21.1)	95
High Interactors	84	67 (65.2)	<u>17</u> (18.8)	84
Totals	179	139	40	179
$df = 1  x^2 = 1$	0.22	$x_{.05}^2 = 3.84$	H <sub>o</sub> : Accept	ed

The test demonstrated that the distribution of frequencies was not significantly different from chance, and the null hypothesis was accepted. Therefore, it is concluded that the group of low and high interacting teachers did not differ in the proportion of married and single teachers.

The third hypothesis concerning a personal variable attributed to teachers is:

H<sub>o</sub>: There is no statistically significant difference in the number of low and high interacting teachers in each of the major subject areas.

The following, Table XII, lists the number of teachers in each subject area coming from the group of low and high interacting individuals.

#### TABLE XII

CHI SQUARE TEST OF SIGNIFICANCE OF DISCREPANCY OF THE NUMBER OF LOW AND HIGH INTERACTING TEACHERS REPORTED BY TEACHERS IN THE VARIOUS SUBJECT AREAS

Subject	N	Low Interactors	Total High Interactors
Language Arts	43	27 (22.8)	16 (20.2) 43
Homemaking & Fine Arts	13	6 ( 6.9)	7 (6.1) 13
Mathematics	23	15 (11.1)	6 ( 9.9) 21
Science	19	8 (10.1)	11 ( 8.9) 19
Social Studies	33	16 (17.5)	17 (15.5) 33

Table XII (continued)

Subject	N	ow Interactors	High Interactors	Total
Commercial	16	9 ( 8.5)	7 ( 7.5)	16
Vocational	11	5 ( 5.8)	6 ( 5.2)	11
Physical Edu.	12	6 ( 6.4)	6 ( 5.6)	12
Other	_11	3 ( 5.8)	8 ( 5.2)	_11
Totals	179	95	84	179
df = 8	x <sup>2</sup> = 8.7	$x_{.05}^2 = 15$	51 Ho: Accept	ed

This test indicated that the distribution of frequencies was not significantly different from chance and the null hypothesis was accepted. Therefore, it is concluded that proportion of low and high interacting teachers in each subject area is not different.

The fourth hypothesis used to test the relationship of a personal variable is:

 $\rm H_{0}$ : There is no statistically significant difference in the teaching experience of high and low interacting teachers.

Table XIII shows the proportion of relatively experienced and inexperienced teachers which are low or high interactors.



### TABLE XIII

CHI	SQUAL	RE	test	OF S	<b>BIGNI</b>	FICA	NCE	OF	DISCRE	PANCY	( OF	THE	NUMBER
	of	LO	W ANI	) HIG	H IN	TERA	CTIN	G (	TEACHEF	IS REI	PORT	ED B	Y
			INEXI	PERIE	ENCED	AND	EXP	ER	IENCED	TEACH	IERS		

Teachers	N	Years of Tea	Total	
		Less than 5 Years	Five or more Years	
Low Interactor	<b>8</b> 95	23 (21.8)	72 (73.2)	95
High Interacto	rs <u>84</u>	<u>18</u> (19.2)	<u>   66</u> (64.8)	_84
Totals	179	41	138	, 179
df = 1	$\mathbf{x}^2 = 0$	.60 $x_{.05}^2 =$	3.84 H <sub>o</sub> : Accer	ted

The preceding test indicated that the distribution of frequencies was not significantly different from chance and the null hypothesis was accepted. It is concluded, therefore, that low and high interacting teachers have proportionally the same number of years of teaching experience.

The fifth and final test of a personal variable associated with teachers is:

 $H_0$ : There is no statistically significant difference in the number of years on the teaching staff for both low and high interacting teachers.

Table XIV depicts the differences in tenure in the present position for both low and high interacting teachers.

TABLE XIV

CHI SQUARE TEST OF SIGNIFICANCE OF DISCREPANCY OF THE NUMBER OF LOW AND HIGH INTERACTING TEACHERS REPORTED BY TEACHERS OF SHORT AND LONG TENURE

Teachers	Number of Years in Present Position					Fotal	
		Less Th	than ree	Thre	e or	More	
Low Interactors	95	55	(53.6)	40	(41.	4)	95
High Interactors	<u>84</u>	_46	(47.4)	<u>38</u>	(36.0	5)	<u>84</u>
Totals	179	101		78			179
$df = 1 x^2$	<sup>2</sup> = 0	•07	x <sup>2</sup> .05	= 3.84	Ho:	Accepted	, ,

This test indicated that the distribution of frequencies was not significantly different from chance and the null hypothesis was accepted. It is concluded, therefore, that low and high interacting teachers have proportionally the same number of years on the staff.

# <u>The Relationship of Personal Variables of Pupils to the</u> <u>Frequency of Principal-Pupil Interaction</u>

The personal variables possibly affecting the frequency of principal-pupil interaction will also be tested, as above, by the chi square technique. The first hypothesis relating to a personal variable of students is: H<sub>o</sub>: There is no statistically significant difference between the proportion of male and female pupils who indicate that they are low or high interactors.

In Table XV one can see the distribution of sexes for a randomly selected group of very high and a group of very low interactors.

#### TABLE XV

CHI SQUARE TEST OF SIGNIFICANCE OF DISCREPANCY OF THE NUMBER OF HIGH AND LOW INTERACTING PUPILS REPORTED BY BOYS AND GIRLS

	N	Se	Total	
Pupils		Male	Female	
Low Interactors	136	55 (58.3)	81 (22.7)	136
High Interactors	_53	<u>26</u> (22.7)	<u>    27</u> (30.3)	_53
Totals	189	81	108	189
$df = 1  x^2 =$	= 0.84	$x_{.05}^2 = 3.84$	H <sub>o</sub> : Accept	ed

This test demonstrated that the distribution of frequencies was not significantly different from chance, and the null hypothesis was accepted. Therefore, it is concluded that the group of low and high interacting pupils did not differ in the proportion of boys and girls.

The second hypothesis relating to a personal variable is:

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- · ·

H: There is no statistically significant difference in the socio-economic level of low and high interacting pupils.

Table XVI lists the number of low and high interacting pupils that are either above or below the mean socioeconomic index score for all pupils in the sample of schools.

#### TABLE XVI

CHI SQUARE TEST OF SIGNIFICANCE OF DISCREPANCY OF THE NUMBER OF HIGH AND LOW INTERACTING PUPILS REPORTED BY PUPILS OF PARENTS OF LOW AND HIGH SOCIO-ECONOMIC LEVELS

Pupils	N	Below the Mean $(\bar{x} = 44)$	Above the Mean	Total	
Low Interactors	136	72 (69.8)	64 (66.2)	136	
High Interactors	_53	<u>25</u> (27.2)	<u>28</u> (25.8)	_53	
Totals	189	97	92	189	
$df = 1  x^2 =$	• 30	$x_{.05}^2 = 3.84$	H <sub>O</sub> : Accepted		

 $\frac{df = 1}{The test indicated that the distribution of fre$ quencies was not significantly different from chance, and the

null hypothesis was accepted. It was concluded, therefore, that the group of low and high interacting pupils did not differ in the proportion of pupils above and below the mean socio-economic level score.

# <u>The Relationship of Organizational Variables of Teachers</u> to the Frequency of Principal-Teacher Interaction

Since none of the personal variables appeared to affect the interaction measure, the next procedure undertaken was to test the possible relationship of the organizational variables of size, design, and organization as described in Chapter III.

The first hypothesis concerning the relationship of an organizational variable is:

H: There is no statistically significant difference in the proportion of low and high interacting teachers coming from small and large high schools.

Table XVII depicts the distribution of low and high interacting teachers by size of school. In this study, the schools were dichotomized into those having less than 1200 pupils and those having 1200 or more pupils.

#### TABLE XVII

CHI SQUARE TEST OF SIGNIFICANCE OF DISCREPANCY OF THE NUMBER OF LOW AND HIGH INTERACTING TEACHERS REPORTED BY TEACHERS IN SCHOOLS HAVING SMALL AND LARGE ENROLLMENTS

Teachers	N	Size of	School	Total
		Less than 1200 Enrolled	1200 or More Enrolled	
Low Interactors	95	24 (34.0)	71 (61.0)	95

Teachers	N	Size of S	Total	
		Less than 1200 Enrolled	1200 or More Enrolled	
High Interactors	84	<u>40</u> (30.0)	<u>44</u> (54.0)	84
Totals	179	64	115	179
$df = 1  x^2 =$	= 9.76	$x_{.05}^2 = 3.84$	H <sub>o</sub> : Reject	ed

Table XVII (continued)

The test indicated that there are significantly more of the high interactors in the smaller schools and significantly more of the low interactors in the large schools. Therefore, the null hypothesis of no difference was rejected. It is concluded that the frequency of principal-teacher interaction is related to the size of the school in terms of the number of pupils.

The second hypothesis relating principal-teacher interaction to the school itself, is:

H<sub>o</sub>: There is no statistically significant difference in the proportion of low and high interacting teachers coming from compact and campus designed schools.

In Table XVIII the distribution of low and high interacting teachers coming from compact and campus designed schools is shown.

#### TABLE XVIII

CHI	SQ	UARE	TES	T OF	' SIGNI	FICANCE	OF D	ISCRE	PANCY	OF THE	C NUMBER
OF	LOW	AND	HIG	H IN	TERACT	ING TEA	CHERS	AS RI	EPORTE	DBYI	EACHERS
	IN	COMP	ACT	AND	CAMPUS	DESIGN	ED HI	H SCI	HOOL F	ACILIT	IES

Teachers	N	Design of H	Total	
		Compact Facilities	Campus Facilities	
Low Interactors	95	39 (37.2)	56 (57.8)	95
High Interactors	84	<u>31</u> (32.8)	<u>   53</u> (51.2)	84
Totals	179	70	109	179
$df = 1  x^2 =$	: 1.58	$x_{.05}^2 = 3.84$	H <sub>o</sub> : Accepte	đ

The test indicated that the distribution of frequencies was not significantly different from chance and the null hypothesis was accepted. It was concluded that the proportion of low and high interacting teachers coming from compact and campus type schools was not different.

The third hypothesis relating principal-teacher interaction to the differences in the schools is:

H<sub>o</sub>: There is no statistically significant difference in the proportion of low and high interacting teachers coming from schools organized as schoolswithin-schools and those organized by subject areas.

Table XIX indicates the distribution of low and high interacting teachers coming from schools organized as schoolwithin-school or by subject areas.

#### TABLE XIX

CHI SQUARE TEST OF SIGNIFICANCE OF DISCREPANCY OF THE NUMBER OF LOW AND HIGH INTERACTING TEACHERS REPORTED BY TEACHERS IN HIGH SCHOOLS ORGANIZED AS SCHOOL-WITHIN-SCHOOL OR SUBJECT ORIENTED

Teachers	N	Organization	Organization of School			
		School- within- school	Subject Oriented			
Low Interactors	95	52 (44.6)	43 (50.4)	95		
High Interactors	84	<u>32</u> (39.4)	<u>52</u> (44.6)	84		
Totals	179	84	95	179		
$df = 1 \qquad x^2 =$	4.29	$x_{.05}^2 = 3.84$	H <sub>o</sub> : Reject	ed		

The test indicates that there are significantly more of the high interactors in the subject oriented schools and significantly more of the low interactors in the schools organized as school-within-school. Therefore, the null hypothesis of no difference was rejected. It is concluded that the frequency of principal-teacher interaction is related to the physical organization of the teachers within the school.

;

# <u>The Relationship of Organizational Variables of Pupils</u> to the Frequency of Principal-Pupil Interaction

The final group of variables that could affect the interaction of principal and pupils has to do with the schools themselves in terms of size, design, and organization.

The first hypothesis concerning the relationship of an organizational variable is:

H<sub>o</sub>: There is no statistically significant difference in the proportion of low and high interacting pupils coming from small and large high schools.

Table XX depicts the distribution of low and high interacting pupils by size of school. As with teachers, the schools were dichotomized into those having less than 1200 pupils and those having 1200 or more pupils.

#### TABLE XX

CHI SQUARE TEST OF SIGNIFICANCE OF DISCREPANCY OF THE NUMBER OF HIGH AND LOW INTERACTING PUPILS REPORTED BY PUPILS IN SCHOOLS HAVING SMALL AND LARGE PUPIL ENROLLMENTS

Pupils	N	Size of	Total	
		Less Than 1200 Pupils	More Than 1200 Pupils	
Low Interactors	136	41 (47.5)	95 (88 <b>.5)</b>	136
High Interactors	_53	<u>25</u> (18.5)	<u>28</u> (34.5)	_53
Totals	189	66	123	189
$df = 1  x^2 =$	= 4.16	$x_{.05}^2 = 3.84$	H <sub>o</sub> : Rejecto	əd

The test indicated that there are significantly more of the high interactors in the smaller schools and significantly more of the low interactors in the large schools. Therefore, the null hypothesis of no difference was rejected. It is concluded that the frequency of principal-pupil interaction is related to the size of the school in terms of the number of pupils.

The second hypothesis relating principal-pupil interaction to the school, itself, is:

Ho: There is no statistically significant difference in the proportion of low and high interacting pupils coming from compact and campus designed schools.

In Table XXI is shown the distribution of low and high interacting pupils coming from compact and campus designed schools.

#### TABLE XXI

CHI SQUARE TEST OF SIGNIFICANCE OF DISCREPANCY OF THE NUMBER OF HIGH AND LOW INTERACTING PUPILS AS REPORTED BY PUPILS IN COMPACT AND CAMPUS DESIGNED HIGH SCHOOLS

Pupils	N	Design of	Total	
		Compact High Schools	Campus High Schools	
Low Interactors	136	49 (47.5)	87 (88.5)	136
High Interactors	_53	<u>17</u> (18.5)	<u>_36</u> (34.5)	53
Totals	189	66	123	189
$df = 1  x^2 =$	0.11	$x_{.05}^2 = 3.84$	Ho: Accept	ed

The test indicated that the distribution of frequencies was not significantly different from chance and the null hypothesis was accepted. It was concluded that the proportion of low and high interacting pupils coming from compact and campus-type schools was not different.

The third hypothesis relating principal-pupil interaction to the differences in the schools is:

Ho: There is no statistically significant difference in the proportion of low and high interacting pupils coming from schools organized as school-withinschool and those organized by subject areas.

Table XXII indicates the distribution of low and high interacting teachers coming from schools organized as school-within-school or by subject areas.

#### TABLE XXII

CHI SQUARE TEST OF SIGNIFICANCE OF DISCREPANCY OF THE NUMBER OF HIGH AND LOW INTERACTING PUPILS REPORTED BY PUPILS IN HIGH SCHOOLS ORGANIZED AS SUBJECT ORIENTED OR SCHOOL-WITHIN-SCHOOL

Pupils	N	Organization	Total	
		School- within- school	Subject oriented	
Low Interactors	136	60 (54.7)	76 (81.3)	136
High Interactors	_53	<u>16</u> (21.3)	<u> </u>	_53
Totals	189	76	113	189
$df = 1 \qquad x^2 =$	: 2.51	$x_{.05}^2 = 3.84$	H <sub>o</sub> : Accept	ed

The test indicated that the distribution of frequencies was not significantly different from chance and the null hypothesis was accepted. It was concluded that the proportion of low and high interacting pupils coming from school-within-school and subject oriented schools was not different.

## Summary of Tests of Related Variables

It was found that none of the identified personal variables for teachers or pupils affected the measure of interaction. However, the size of the school was significantly related for both teachers and pupils and the organization of personnel was shown to be significantly related for the teacher group. A summary of all tests is shown in Table XXIII.

#### TABLE XXIII

SUMMARY OF CHI SQUARE ANALYSIS OF VARIABLES ASSOCIATED WITH THE FREQUENCY OF INTERACTION

Group;	Variable	d.f.	Obtained Chi Square	<b>x</b> <sup>2</sup> •05	Decision Concerning the H <sub>o</sub>
Teachers	Sex	1	2.99	3.84	Accepted
Pupils	Sex	1	0.84	3.84	Accepted
Teachers	Marriage	1	0.22	3.84	Accepted

Table XXIII (continued)

Group:	Variable	d.f.	Obtained Chi Square	<b>x</b> <sup>2</sup> •05	Decision Concerning the H <sub>o</sub>
Teachers	Subject area	8	8.76	15.51	Accepted
Teachers	Teaching experience	1	0.60	3.84	Accepted
Teachers	Years on staff	1	0.07	3.84	Accepted
Pupils	Socio-economic level	1	0.30	3.84	Accepted
Teachers	Size of school	1	9.76	3.84	Rejected
Pupils	Size of school	1	4.16	3.84	Rejected
Teachers	Design of school	1	1.58	3.84	Accepted
Pupils	Design of school	1	0.11	3.84	Accepted
Teachers	Organization of school	1	4.29	3.84	Rejected
Pupils	Organization of school	1	2.51	3.84	Accepted

# Classification of Schools

Since it was found that the size and the organization of the school does, indeed, affect the frequency of principal-teacher and principal-pupil interaction, the groups of ++ and +- schools were reclassified to account for these variables. The tests of the hypotheses were then carried out for each of the four groups of both ++ and +- schools. Table XXIV lists the number of schools in each category.

### TABLE XXIV

Group by Size and Organization	Number of ++ Schools	Number of +- Schools	Total
Small subject	2	6	8
Large subject	3	5	8
Small school- within-school	2	2	4
Large school- within-school	6	4	_10_
Totals	13	17	30

THE CLASSIFICATION OF ++ AND +- SCHOOLS BY SIZE AND ORGANIZATION

The following table, Table XXV, lists the number of teachers by perceptual classification in each of the categories of schools.


#### TABLE XXV

School Category	Numbe	Number of Teachers						
		<u> </u>						
Size, Organization and Classification	++	+-	-+	Total				
Small subject ++	34	22	7	63				
Small subject +-	68	57	7	1 32				
Large subject ++	86	72	17	175				
Large subject +-	155	124	13	292				
Small school-within- school ++	18	22	3	43				
Small school-within- school +-	46	29	5	80				
Large school-within- school ++	154	129	19	302				
Large school-within- school +-	135	108	_16_	259				
Totals	696	563	87	11346				

#### THE NUMBER OF TEACHERS IN EACH CATEGORY OF SCHOOL LISTED BY PERCEPTUAL CLASSIFICATION

The distribution of pupils for each category of schools is shown in Table XXVI.

#### TABLE XXVI

## THE NUMBER OF PUPILS IN EACH CATEGORY OF SCHOOL LISTED BY PERCEPTUAL CLASSIFICATION

School Category		Num	Number of Pupils				
Size, Organization Classification	and	++	+	<b>*</b> +	Total		
Small subject	++	34	32	12	78		
Small subject	+	65	74	25	164		
Large subject	++	115	124	54	293		
Large subject	+-	162	139	48	349		
Small school∽withi school	n- ++	23	23	3	49		
Small school-withi school	n- +-	36	34	9	79		
Large school-withi school	n ++	149	157	75	411		
Large school-withi school	n- +-	_176_	175	55	406		
Totals		790	<b>7</b> 58	281	1829		

# Tests of the Hypotheses; Teacher Data

Each of the operational hypotheses relating to teachers which were formulated, directionally, in Chapter IV will now be stated in the null form. The student's "t" test for significance is shown as the statistical technique. The · · · · · \_ .\_ . . . and the second second · · · · ·

hypotheses concerning principal-teacher interaction were executed first, followed by those concerning principal-pupil interaction.

H 1a: There is no significant difference in the frequency of interaction of high valuing (++) teachers with high valuing (++) principals or with over valuing (+-) principals.

Table XXVII lists the perceptual classification for the administrators, the number of subjects, the mean, the variance, the value of "t" (.05 level) that must be exceeded in order to reject the hypothesis, the obtained "t" and the decision regarding the null hypothesis. This is shown for each group of schools.

#### TABLE XXVII

**RESULTS OF THE "t" TESTS FOR THE INTERACTION OF ++ TEACHERS** IN ++ AND +- SCHOOLS

Principa Classifi	ls' catio	n N	x	s² x	(one-ta t.05	iled) t	Ho		
S	Small	Subject O	rganized	Schoo	ls				
++ +-		34 68	1.41 1.75	0.73 0.80			Accept		
L	arge	Subject O	rgani zed	Schoo	ls				
++ +-		86 155	0.97 1.05	0.81 0.66			Accept		
ន	mall	School-Wi	thin-Sch	ool Or	ganized	Schools	3		
++ +-		18 46	1.94 1.35	0.53 0.94	1.67	2.33	Reject		
L	Large School-Within-School Organized Schools								
++ +-		154 135	1.01 0.79	0.68 0.65	1.65	2.32	Reject		

The tests demonstrated that there were significant differences in the values of the means, as predicted, in schools organized as school-within-school. There were no significant differences in the means, as predicted, in subject organized schools and the null hypotheses were accepted. Therefore, it is concluded that high valuing (++) teachers do interact more frequently with the principal when he is

also high valuing (++) than when he is (+-) or over valuing. This was found to be true only in schools organized as schoolwithin-school.

H 1b: There is no significant difference in the frequency of the interaction of over valuing (+-) teachers with high valuing (++) principals or with over valuing (+-) principals.

The results of the "t" tests for each group of schools are shown in Table XXVIII.

TABLE	XXV	Ί	Ι	Ι
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RESULTS OF THE "t" TESTS FOR INTERACTION OF +- TEACHERS IN ++ AND +- SCHOOLS

Principals Classificat	tion	N	ž	s <sup>2</sup> x	(one- tailed) t.05	t	н <sub>о</sub>			
Smal	ll Subje	ct Or	gani zed	Schoo	ls					
++ +-		22 57	1.50 1.65	0.83 0.91			Accept			
Lar	Large Subject Organized Schools									
++ +-		72 124	1.07 1.02	0.80 0.72	1.65	0.39	Accept			
Smal	Ll Schoo	l-Wit	hin-Sch	ool Or	ganized 3	Schools				
++ +-		22 29	1.09 1.10	0.66 0.74			Accept			
Lar	Large School-Within-School Organized Schools									
++ +-		129 108	1.02 0.86	0.68 0.77	1.65	1.45	Accept			

79

1

The tests demonstrated that the means were not significantly different in the predicted direction and the null hypotheses were accepted. It was concluded, therefore, that over valuing (+-) teachers do not interact more frequently with the principal when he is high valuing (++) rather than over valuing (+-).

H ic: There is no significant difference in the frequency of the interaction of under valuing (-+) teachers with high valuing (++) principals or with over valuing (+-) principals.

The results of the "t" tests for each group of schools is shown in Table XXIX.

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TUDT	1 d	ົ	τv

RESULTS OF THE "t" TESTS FOR INTERACTION OF -+ TEACHERS IN ++ AND +- SCHOOLS

Princi Classi	pals' ficatio	on	N	ž	s² x	(One- tailed) t.05	t	Ho	
	Small	Subjea	ct-0	rganized	Schoo	18			
++ +-			7 7	1.29 1.14	1.24 1.48	1.78	0.24	Accept	
	Large	Subjec	ct-01	rganized	Schoo	18			
++ +-			17 13	0.76 1.23	0.57 1.53			Accept	
	Small	School	1-W1	thin-Sch	ool Or	ganized S	Schools		
++ +-			3 5	0.67 1.20	1.34 0.70			Accept	
	Large School-Within-School Organized Schools								
++ +-			19 16	0.89 0.94	0.66 1.00			Accept	

The tests indicated that there were no significantly different means in the predicted direction, thus, the null hypotheses were accepted.

It was concluded that under valuing (-+) teachers do not interact more frequently with high valuing (++) principals than they do with over valuing (+-) principals. H 2a: There is no significant difference in the frequency of interaction of high valuing (++) teachers or over valuing (+-) teachers in ++ schools.

The results of the "t" tests concerning this hypothesis are found in Table XXX.

### TABLE XXX

RESULTS OF THE "t" TESTS FOR THE INTERACTION LEVELS OF ++ TEACHERS AND THOSE OF +- TEACHERS IN ++ SCHOOLS

Teachers' Classification		)n	N	ž	s <mark>2</mark>	(One- tailed) t.05	t	Ho	
	Small	Subjec	ubject-Organized Schools						
++ +-			34 22	1.41 1.50	0.73 0.83			Accept	
	Large	Subjec	t-Or	ganized	School	Ls			
++ +-			86 72	0.97 1.07	0.81 0.80			Accept	
	Small	School	L-Wit)	nin-Sch	ool Ore	ganized S	Schools		
++ +-			18 22	9.94 1.09	0.53 0.66	1.68	26.56	Reject	
	Large	Schoo]	L-Wit	nin-Sch	ool Org	ganized S	Schools		
++ +-		1	1 <b>54</b> 129	1.01	0.68 0.68			Accept	

The tests demonstrated that there were significant differences in the values of the means, as predicted, in small schools organized as school=within-school. The means were not significantly different, however, in the predicted direction, in the other sizes, and types of schools. As a result, the null hypothesis was accepted in each case. It is concluded, therefore, that in small school-within-school organized schools with high valuing (++) principals, high valuing (++) teachers do, indeed, interact more frequently with the principal than do over valuing (+-) teachers.

H 2b: There is no significant difference in the frequency of the interaction of high valuing (++) teachers or over valuing (+-) teachers in +- schools.

In Table XXXI are shown the results of the "t" tests for this hypothesis.

TABLE XXXI

(One-Teachers' tailed) s² Ī t Classification N Ho <sup>6</sup>.05 Small Subject-Organized Schools 1.65 68 1.75 0.80 0.60 Accept 44 1.65 0.91 57 **+**-Large Subject-Organized Schools 155 1.05 0.66 1.65 0.30 Accept --124 1.02 0.72 **+**--Small School-Within-School Organized Schools 1.35 46 0.94 1.67 1.14 Accept ++ 29 1.10 0.74 **+--**Large School-Within-School Organized Schools 135 0.79 0.65 Accept ++ 0.86 108 0.77 ÷...

The tests indicated that there were no significantly different means in the predicted direction, thus, the null hypotheses were accepted. It was concluded that in +schools, high valuing (++) teachers do not interact more often with the principal than over valuing (+-) teachers do.

RESULTS OF THE "t" TESTS FOR THE INTERACTION LEVELS OF ++ TEACHERS AND THOSE OF +- TEACHERS IN +- SCHOOLS H 2c: There is no significant difference in the frequency of the interaction of high valuing (++) teachers or under valuing (-+) teachers in ++ schools.

The results of the "t" tests concerning this hypothesis are found in Table XXXII.

## TABLE XXXII

RESULTS OF THE "t" TESTS FOR THE INTERACTION LEVELS OF ++ TEACHERS AND THOSE OF -+ TEACHERS IN ++ SCHOOLS

Teache Classi	rs' ficatio	on N	x	s² x	(One- tailed) .05	t	Н <sub>о</sub>			
	Small	Subject-0	rganized	1 Schoo	ols					
++ -+		34 7	1.41 1.29	0.73 1.24	1.68	0.77	Accept			
	Large	ge Subject-Organized Schools								
++ -+		86 17	0.97 0.76	0.81 0.57	1.66	0.90	Accept			
	Small	School-W1	thin-Scl	nool Or	rganized	Schoole	5			
++ -+		18 3	1.94 0.67	0.53 1.34	1.73	1.49	Accept			
	Large School-Within-School Organized Schools									
++ -+		154 19	1.01 0.89	0.68 0.66	1.65	0.61	Accept			

The tests indicated that there were no significantly different means in the predicted direction, thus, the null hypotheses were accepted. It was concluded that in ++ schools, high valuing (++) teachers do not interact more often with the principal than under valuing (-+) teachers do.

H 2d: There is no significant difference in the frequency of the interaction of high valuing (++) teachers or under valuing (-+) teachers in +- schools.

The results of the "t" tests concerning this hypo-

#### TABLE XXXIII

RESULTS OF THE "t" TESTS FOR THE INTERACTION LEVELS OF ++ TEACHERS AND THOSE OF -+ TEACHERS IN +- SCHOOLS

Teacher Classi	rs' ficatio	on N	ī	s <sup>2</sup> x	(one- tailed) .05	t	н <sub>о</sub>			
	Small	Subject-0	rganized	l Schoo	ls					
++ -+		68 7	1.75 1.14	0.80 1.48	1.67	1.66	Accept			
<u></u>	Large Subject-Organized Schools									
++ -+		155 13	1.05 1.23	0.66 1.53			Accept			
	Small	School-Wi	thin-Sch	nool Or	ganized	School	8			
++ -+		<b>4</b> 6 5	1.35 1.20	0.94 0.70	1.68	0.33	Accept			
	Large School-Within School Organized Schools									
++ -+		135 16	0.79 0.94	0.65 1.00			Accept			

The tests indicated that there were no significantly different means in the predicted direction, thus, the null hypotheses were accepted. It was concluded that in +schools high valuing (++) teachers do not interact more often with the principal than under valuing (-+) teachers do.

H 2e: There is no significant difference in the frequency of the interaction of under valuing (-+) teachers or over valuing (+-) teachers in ++ schools.

The results of the "t" tests concerning this hypothesis are found in Table XXXIV. TABLE XXXIV

RESULTS OF THE "t" TESTS FOR THE INTERACTION LEVELS OF -+ TEACHERS AND THOSE OF +- TEACHERS IN ++ SCHOOLS

Teacl Class	ners' sificatio	on N	ž	s <sup>2</sup> x	(One- tailed) .05	t	н <sub>о</sub>
	Small Subject-Organized Schools						
-+ +-		7 22	1.29 1.50	1.24 0.83			Accept
	Large	Subject-	Organize	d Schoo	18		
-+ +-		17 72	0.76 1.07	0.57 0.80			Accept
	Small	School-W	ithin-Sc	hool Or	ganized a	Schools	
-+ +-		3 22	0.67 1.09	1.34 0.66			Accept
	Large	School-W	ithin-Sc	hool Or	ganized a	Schools	
-+ +-		19 129	0.89 1.02	0.66 0.68			Accept

The tests indicated that there were no significantly different means in the predicted direction, thus, the null hypotheses were accepted. It was concluded that in ++ schools, under valuing (-+) teachers do not interact more often with the principal than over valuing (+-) teachers do.

H 2f: There is no significant difference in the frequency of the interaction of under valuing (-+) teachers or over valuing (+-) teachers in +- schools.

#### TABLE XXXV

RESULTS OF THE "t" TESTS FOR THE INTERACTION LEVELS OF -+ TEACHERS AND THOSE OF +- TEACHERS IN +- SCHOOLS

Teache Classi	rs' ficatio	on N	ž	s²x	(One- tailed) t.05	t	н <sub>о</sub>			
	Small	Subject-0	rganized	l Schoo	ls					
-+ +-		7 57	1.14 1.65	1.48 0.91			Accept			
	Large Subject-Organized Schools									
-+ +-		13 124	1.23 1.02	1.53 0.72	1.65	0.81	Accept			
	Small	School-Wi	thin-Sch	nool Or	ganized	Schools				
-+ +-		5 29	1.20 1.10	0.70 0.74	1.70	0.24	Accept			
	Large School-Within-School Organized Schools									
-+ +-		16 108	0.94 0.86	1.00 0.77	1.65	0.27	Accept			

The tests indicated that there were no significantly different means in the predicted direction, thus, the null hypotheses were accepted. It was concluded that in +schools, under valuing (-+) teachers do not interact more often with the principal than over valuing (+-) teachers do.

## Tests of the Hypotheses; Pupil Data

Each of the hypotheses relating to pupils was also tested by means of the student's "t" test for significance.

H 3a: There is no significant difference in the frequency of interaction of high valuing (++) pupils with high valuing (++) principals or with over valuing (+-) principals.

Table XXXVI lists the perceptual classification for the administrators, the number of subjects, the mean, the variance, the value of the "t" (.05 level) that must be exceeded in order to reject the hypothesis, the obtained "t" and the decision regarding the null hypothesis. This is shown for each group of schools.

#### TABLE XXXVI

RESULTS	OF	THE	"t"	TESTS	FOR	THE	INTERACTION	OF	++	PUPILS	IN
			· •	++ /	AND -	- SC	CHOOLS				

التي ويوافق التي بيانية			وروالا المروور المراجع							
Princi Classi	pals' ficatio	on N	ž	s²x	(One- tailed) t.05	t	Н <sub>о</sub>			
	Small	Subject-C	rganize	d School	ls					
++ +-		34 65	0.68 0.80	1.07 1.16			Accept			
	Large	Subject-C	ibject-Organized Schools							
++ +-		115 162	0.19 0.22	0.31 0.34			Accept			
	Small	School-Wi	.thin-Sc	hool Or	ganized :	School				
++ +-		23 36	0.52 0.50	0.62 0.49	1.67	0.10	Accept			
	Large	School-Wi	School-Within-School Organized School							
++ +-		179 176	0.27 0.38	0.44 0.55			Accept			

The tests demonstrated that the means were not significantly different in the predicted direction and the null hypotheses were accepted. It was concluded, therefore, that high valuing (++) pupils do not interact more frequently with the principal when he is high valuing (++) rather than over valuing (+-). H 3b: There is no significant difference in the frequency of the interaction of over valuing (+-) pupils with high valuing (++) principals or with over valuing (+-) principals.

The results of the "t" tests for each group are shown in Table XXXVII.

#### TABLE XXXVII

RESULTS OF THE "t" TESTS FOR INTERACTION OF +- PUPILS IN ++ AND +- SCHOOLS

Princi Classi	ipals' Ificatio	on N	x	s <sup>2</sup> x	(One- tailed) .05	t	Н <sub>о</sub>		
	Small	Subject-O	rganized	l Schoo	ls				
++ +-		32 74	0.38 0.89	0.44 1.22			Accept		
	Large	Subject-O	bject-Organized Schools						
++ +-		124 139	<b>0.3</b> 3 0.25	0.55 0.51	1.65	0.90	Accept		
	Small	School-W1	thin-Scl	nool Or	ganized	Schools	5		
++ +-		23 34	0.22 0.65	0.27 1.45			Accept		
	Large	School-Wit	thin-Sch	nool Or	ganized	Schools	5		
++ +-		157 175	0.27 0.26	0.35 0.32	1.65	0.16	Accept		

The tests demonstrated that the means were not significantly different in the predicted direction and the null hypotheses were accepted. It was concluded, therefore, that over valuing (+-) pupils do not interact more frequently with the principal when he is high valuing (++) rather than over valuing (+-).

H 3c: There is no significant difference in the frequency of the interaction of under valuing (-+) pupils with high valuing (++) principals or with over valuing (+-) principals.

The results of the "t" tests for each group of schools is shown in Table XXXVIII.

#### TABLE XXXVIII

RESULTS OF THE "t" TESTS FOR INTERACTION OF -+ PUPILS IN ++ AND +- SCHOOLS

Princi Classi	pals' ficatio	on N	x	s²	(One- tailed) t.05	t	н <sub>о</sub>		
	Small	Subject-0	rganized	1 Schoo	ols				
++ +-		12 25	0.25 0.24	0.39 0.44	1.69	0.04	Accept		
	Large	Subject-0	bject-Organized Schools						
++ +		5 <b>4</b> 48	0.26 0.29	0.61 0.47			Accept		
	Small	School-Wi	thin-Scl	nool Or	ganized	Schools			
++ +-		3 9	0.00	0.00			Accept		
	Large	arge School-Within-School Organized Schools							
++ +-		75 55	0.17 0.24	0.31 0.26			Accept		

The tests indicated that there were no significantly different means in the predicted direction, thus, the null hypotheses were accepted. It was concluded that under valuing (-+) pupils do not interact more frequently with high valuing (++) principals than they do with over valuing (+-) principals.

H 4a: There is no significant difference in the frequency of interaction of high valuing (++) pupils or over valuing (+-) pupils in ++ schools.

The results of the "t" tests concerning this hypothesis are found in Table XXXIX.

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**RESULTS OF THE "t" TESTS FOR THE INTERACTION LEVELS OF ++ PUPILS AND THOSE OF +- PUPILS IN ++** SCHOOLS

Pupils Classi	' ficatio	n N	ž	s <sup>2</sup> x	(One- tailed .05	) <sub>t</sub>	Н <sub>о</sub>	
	Small	Subject-(	)rganiz	ed Schoo	ols			
++ +-		34 32	0.68 0.38	1.07 0.44	1.67	1.40	Accept	
	Large Subject-Organized Schools							
++ +-		115 124	0.19 0.33	0.31 0.55			Accept	
	Small	School-Wi	thin-Se	chool On	rganized	Schoo	ls	
++ +-		23 23	0.52 0.22	0.62 0.27	1.68	1.52	Accept	
	Large	School-Wi	Lthin-Se	chool Or	ganized	Schoo	ls	
++ +-		179 157	0.27 0.27	0.44 0.35			Accept	

The tests indicated that there were no significantly different means in the predicted direction, thus, the null hypotheses were accepted. It was concluded that in ++ schools, high valuing (++) pupils do not interact more frequently with the principal than over valuing (+-) pupils do.

H 4b: There is no significant difference in the frequency of the interaction of high valuing (++) pupils or over valuing (+-) pupils in +- schools.

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In Table XL are shown the results of the "t" tests for this hypothesis.

#### TABLE XL

RESULTS OF THE "t" TESTS FOR THE INTERACTION LEVELS OF ++ PUPILS AND THOSE OF +- PUPILS IN +- SCHOOLS

Pupils' Classific	catio	n N	ž	s <sup>2</sup> x	(One- tailed) t.05	t	Ho			
Si	nall	Subject-(	Organize	d Schoo	18					
++		65 74	0.80 0.89	1.16 1.22			Accept			
Le	arge	Subject-(	ibject-Organized Schools							
++ +-		162 139	0.22 0.25	0.34 0.52			Accept			
SI	nall	School-Wi	Lthin-Sc	hool Or	gani zed	School	8			
++ +-		36 34	0.50 0.65	0.49 1.45			Accept			
Le	arge	School-Wi	lthin-Sc	hool Or	ganized	School	8			
++ +-		176 175	0.38 0.26	0.55 0.32	1.65	1.71	Reject			

The tests demonstrated that there were significant differences in the values of the means, as predicted, in large schools organized as school-within-school. The means were not significantly different, however, in the other



sizes and types of schools. As a result, the null hypothesis was accepted in each case. It is concluded, therefore, that in large school-within-school organized schools with over valuing (+-) principals, high valuing (++) pupils do indeed interact more frequently with the principal than do over valuing (+-) pupils.

H 4c: There is no significant difference in the frequency of the interaction of high valuing (++) pupils or under valuing (-+) pupils in ++ schools.

The results of the "t" tests concerning this hypothesis are found in Table XLI. and the second 
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Pupil Class	s' ification	n N	ž	s²x	(One- tailed t.05	l) t	Н <sub>о</sub>
	Small S	Subject-	Organiz	ed Scho	ols		
++ -+		34 12	0.68 0.25	1.07 0.39	1.68	1.35	Accept
	Large S	Subject-	Organiz	ed Scho	ols		
++ -+		115 54	0.19 0.26	0.31 0.61			Accept
	Small S	School-W:	ithin-S	chool O	rganized	School	ls
++ -+		23 3	0.52	0.62		Not to	ested
	Large S	School-W	ithin-Se	chool O	rganized	l School	ls
++ -+		179 75	0.27 0.17	0.44 0.31	1.65	1.15	Accept

RESULTS OF THE "t" TESTS FOR THE INTERACTION LEVELS OF ++ PUPILS AND THOSE OF -+ PUPILS IN ++ SCHOOLS

The test was not undertaken in small school-withinschool organized schools because of insufficient data. Tests were completed for the other sizes and types of schools with the result that there were no significantly different means in the predicted direction, thus, the null hypotheses were accepted. It was concluded that in ++ schools, high valuing (++) pupils do not interact more often with the principal than do under valuing (-+) pupils.

H 4d: There is no significant difference in the frequency of the interaction of high valuing (++) pupils or under valuing (-+) pupils in +- schools.

The results of the "t" tests concerning this hypothesis are found in Table XLII.

## TABLE XLII

RESULTS OF THE "t" TESTS FOR THE INTERACTION LEVELS OF ++ PUPILS AND THOSE OF -+ PUPILS IN +- SCHOOLS

Pupils' Classificati	on N	x	s²x	(One- tailed .05	) <sub>t</sub>	Н <sub>о</sub>
Small	Subject-	Organiz	ed Schoo	ols		
++ -+	65 25	0.80 0.24	1.16 0.44	1.67	2.42	Reject
Large	Subject-	Organiz	ed Schoo	ols		
++ -+	162 48	0.22 0.29	0.34 0.47			Accept
Small	School-W	ithin-S	chool O	rganized	Schoo	18*
++ -+	36 9	0.50 0.00	0.49 0.00			Reject
Large	School-W	'ithin-S	chool On	rganized	Schoo	ls
++ -+	176 55	0.38 0.24	0.55 0.26	1.65	1.31	Accept
*Since there hypothesis bility test cance level	was no o was teste P = .0 0.05, th	bserved d by me 22 whic us the	variand ans of t h was lo null hy	the for the fish the fish the ss than thesis	he -+ er exa the s is re	group, the ct proba- et signifi- jected.

The tests demonstrated that there were significant differences in the values of the means, as predicted, in small schools organized as school-within-school. The means were not significantly different, however, in the other sizes and types of schools. As a result, the null hypothesis was accepted in each instance. It is concluded, therefore, that in small school-within-school organized schools with over valuing (+-) principals, high valuing (++) pupils do indeed interact more frequently with the principal than under valuing (-+) pupils do.

H 4e: There is no significant difference in the frequency of the interaction of under valuing (-+) pupils or over valuing (+-) pupils in ++ schools.

The results of the "t" tests concerning this hypo-

## TABLE XLIII

RESULTS OF THE "t" TESTS FOR THE INTERACTION LEVELS OF -+ PUPILS AND THOSE OF +- PUPILS IN ++ SCHOOLS (One-Pupils'

Class	ificatio	n N	x	S x	t.05	t	Ho
	Small	Subject-0	rganized	l School	18		
-+ +-		12 32	0.25 0.38	0.39 0.44			Accept
	Large	Subject-O	rganized	l School	ls		
-+ +-		54 124	0.26 0.33	0.61 0.55			Accept
	Small	School-Wi	thin-Scl	nool Or	ganized S	chool	5
-+ +-		3 23	0.00 0.22	0.00 0.27			Accept
•	Large	School-Wi	thin-Scl	nool Or	ganized S	chool	3
-+ +-		75 24	0.17 0.25	0.31 0.28			Accept

The tests indicated that there were no significantly different means, in the predicted direction, thus, the null hypotheses were accepted. It was concluded that in ++ schools, under valuing (-+) pupils do not interact more often with the principal than over valuing (+-) teachers do.

H 4f: There is no significant difference in the frequency of the interaction of under valuing (-+) pupils or over valuing (+-) pupils in +- schools.



Table XLIV lists the results concerning this hypothesis.

#### TABLE XLIV

RESULTS OF THE "t" TESTS FOR THE INTERACTION LEVELS OF -+ PUPILS AND THOSE OF +- PUPILS IN +- SCHOOLS

Pupils Classi	, ficatio	on N	ž	s <sup>2</sup> x	(One- tailed) t.05	t	Ho			
	Small	Subject-0	rganize	d School	ls					
-+ +-		25 74	0.24 0.89	0.44 1.22			Accept			
	Large	Subject-0	bject-Organized Schools							
-+ +-		48 139	0.29 0.25	0.47 0.51	1.65	0.34	Accept			
	Small	School-Wi	thin-Sci	hool Or	ganized	Schools				
-+ +-		9 34	0.00 0.65	0.00 1.45			Accept			
	Large	School-Wi	thin-Scl	hool Or	ganized	Schools				
-+ +-		55 175	0.24 0.26	0.26 0.32			Accept			

The tests indicated that there were no significantly different means in the predicted direction, thus, the null hypotheses were accepted. It was concluded that in +schools, under valuing (-+) pupils do not interact more often with the principal than over valuing (+-) teachers do.

# Summary of Tests of the Hypotheses

In Table XLV appears a summary of the results of the tests of the hypotheses. Although the null hypothesis was accepted in most cases, five of the null hypotheses were rejected in the schools organized as school-within-school.



# TABLE XLV

SUMMARY OF THE TESTS OF THE HYPOTHESES

Hypothesis*	Test Used	H <sub>o</sub> : Small Subject	H <sub>o</sub> : Large Subject	Ho: Small S-W-S	H <sub>o</sub> : Large S-W-S
1a	"t"	Accepted	Accepted	Rejected	Rejected
1ъ	"t"	Accepted	Accepted	Accepted	Accepted
1c	"t"	Accepted	Accepted	Accepted	Accepted
2a	"t"	Accepted	Accepted	Rejected	Accepted
2Ъ	"t"	Accepted	Accepted	Accepted	Accepted
2c	"t"	Accepted	Accepted	Accepted	Accepted
2đ	"t"	Accepted	Accepted	Accepted	Accepted
2e	"t"	Accepted	Accepted	Accepted	Accepted
2 <b>f</b>	"t"	Accepted	Accepted	Accepted	Accepted
3a	"t"	Accepted	Accepted	Accepted	Accepted
3ъ	"t"	Accepted	Accepted	Accepted	Accepted
3c	"t"	Accepted	Accepted	Accepted	Accepted
4a	"t"	Accepted	Accepted	Accepted	Accepted
4ъ	"t"	Accepted	Accepted	Accepted	Rejected
4c	"t"	Accepted	Accepted	<b>-</b>	Accepted
4a	"t"	Rejected	Accepted	Rejected**	Accepted
4e	"t"	Accepted	Accepted	Accepted	Accepted
4 <b>f</b>	"t"	Accepted	Accepted	Accepted	Accepted

\* See pp. 49-51 for a listing of the hypotheses. \*\* Tested with the Fisher exact probability test.


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### CHAPTER V

## SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### Summary

This study is an outgrowth of U. S. Office of Education Project 918 which focused on the effects of school design on the patterns of interaction of school personnel. The present study was designed to test hypotheses relating the perceptual classification of principals, teachers, and pupils to the frequency with which they interact for the purpose of discussing their professional and personal problems. A number of directional sub-hypotheses were constructed in order to test the four major hypotheses which were:

- H 1: There is a relationship between the perceptual classification of the <u>principal</u> and the level of <u>principal</u>-<u>teacher</u> interaction.
- H 2: There is a relationship between the perceptual classification of the <u>teacher</u> and the level of <u>principal-teacher</u> interaction.
- H 3: There is a relationship between the perceptual classification of the <u>principal</u> and the level of <u>principal-pupil</u> interaction.
- H 4: There is a relationship between the perceptual classification of the <u>pupil</u> and the level of <u>principal-pupil</u> interaction.

<u>Selection of high schools studied</u>. Since Project 918 involved the study of high schools of varying design,



organization and size, several methods were employed in the selection process. The initial procedure was that of inquiry. Several sources were utilized in identifying a group of 401 schools. Of this group, 298 desired to take part in the study and thus furnished further information describing their high schools. After examining this information, 77 schools were visited out of which 34 were chosen for the project. The present study utilized 30 of the schools which met the criteria set forth in the delimitations. Although the schools were distributed throughout the United States, further examination revealed that they tended to cluster in the East and West coastal areas.

<u>Instrumentation</u>. The instruments utilized in this study included a measure for determining perceptual classification, a measure of the frequency of interaction, and a questionnaire portion for the measurement of personal variables. The institutional variables of design, organization, and size were determined in the school selection process.

The perceptual classification of personnel was determined by K. T. Hereford's revision of the Robert Bills' <u>Index</u> <u>of Adjustment and Values</u>. This was used to classify personnel into four perceptual types ++, +-, -+, and --, in terms of their acceptance of self and others.

The frequency of interaction was measured by means of



a rating scale. This instrument asked teachers and students to indicate how frequently they discussed professional concerns (in the case of teachers) or school and/or personal problems (in the case of pupils) with each of a number of school personnel. Five steps were employed in order to secure the proper distinction in judgment. The steps, in decreasing order of value, were: (1) two or three times each day, (2) nearly everyday, (3) frequently, (4) occasionally, and (5) rarely.

The personal variables were determined by means of the questionnaire portion of the instrumentation. The information obtained from teachers included: years on the present staff, years of teaching experience, sex, marital status, and subjects taught. Fupils were to list their grade and sex. The socio-economic level of pupils was also determined by use of the Duncan method.

Administration of the instruments. Each of the high schools included in the study was visited by a Michigan State University staff member. This person oriented the staff to the project and instruments. The teachers completed their instruments while supervising the testing of pupils. After the testing period, all materials were returned to the Michigan State University staff member for packaging and mailing to the campus. School staff members were assured,



in each school, that their responses would be kept in strict confidence.

<u>Treatment of data</u>. Upon receipt of the booklets at the university, each booklet was stamped with a code number which enabled the investigators to identify both the school and the administrator, teacher, or pupil within the school. All administrator and teacher instruments were coded for IBM machine tabulation. In the case of pupils, a 25 per cent random sample was extracted from each school utilizing a table of random numbers.

Statistical methods employed. The interaction measure was first analyzed for item homogeneity. The statistical methods employed were the phi coefficient of correlation and the maximal phi coefficient of correlation. The interaction measure was then tested for relationship to the personal and institutional variables by means of the chi-square technique after which the hypotheses were tested by means of the Student's "t" mean analysis.

The chi-square technique was employed in testing the personal and institutional variables because the data fell into discrete categories. Other assumptions that were met are independence among single responses and theoretical frequencies of adequate size.



The Student's "t" test of differences in the means was used to test the operational hypotheses. The assumptions which were considered met are: independent observations, a normally distributed population and equal population variances.

<u>Classification of schools</u>. Since the size and the organization of schools appeared to affect the frequency of interaction, the schools were reclassified into four groups of ++ and +- schools before the tests of the hypotheses were undertaken. The four groups of schools utilized were: (1) small subject organized schools, (2) large subject organized schools, (3) small school-within-school organized schools, and (4) large school-within-school organized schools.

Results of the tests. Of the 72 "t" tests employed to test the hypotheses, 66 of the null hypotheses were accepted. Of the six null hypotheses rejected, five were found to be tests relating to the group of schools organized as school-within-school.

<u>Teacher data</u>. The tests revealed, in both small and large school-within-school organized schools, that high valuing (++) teachers interacted more frequently with high valuing (++) principals than they did with over valuing (+-) principals.



The tests also revealed, in small school-withinschool organized schools with high valuing (++) principals, that high valuing (++) teachers did interact with the principal more often than over valuing (+-) teachers.

<u>Pupil data</u>. The tests revealed, in large schoolwithin-school organized schools with over valuing (+-) principals, that high valuing (++) pupils did interact with the principal more frequently than over valuing (+-) pupils.

Finally, the tests demonstrated, in all small schools (both subject organized and of school-within-school organization) having over valuing (+-) principals, that high valuing (++) pupils did interact with the principal more often than the under valuing (-+) pupils.

# Conclusions

The evidence found in the statistical analysis led to the conclusion that, in the selected schools, there was no evident relationship between the perceptual classification of the principal and the frequency of either principalteacher or principal-pupil interaction.

It was also concluded that the perceptual classification of teachers and pupils was not related to the frequency of principal-teacher or principal-pupil interaction.



# Recommendations and Implications

Recommendations. The results of this exploratory

study point out several avenues for further research. These

include:

- 1. A similar study should be conducted employing a sample of schools which are homogeneous in terms of size and organization.
- 2. Future studies employing Bills' typology would do well to study only personnel who demonstrate, to a greater degree, differences in the acceptance of self and others.
- 3. Other studies concerned with the nature of principalteacher or principal-pupil interaction should employ or develop instruments which measure the specific concerns of the interactions and the initiator as well as the frequency of interaction.
- 4. The fact that the small number of null hypotheses that could be rejected appeared in the school-within-school organized schools suggests that, possibly, some variable associated with this type of personnel organization may effect the pattern of interaction in terms of the personalities involved. Thus, further investigation of these schools is warranted.

<u>Implications for administration</u>. The limitations of the present study, notwithstanding, it appears that the findings are in conflict with a long held tenet in the field of educational administration. For example, it is professed that the principal should value the competencies, interests,

<sup>&</sup>lt;sup>1</sup>It should be noted that, in Bills' scale, one score point results in a different perceptual classification for an individual.



and recommendations of the staff members no less than he does his own. It is further extolled that if he does this, in good faith, the pattern of principal-staff communication and mutual involvement in decision making will flow smoothly and beneficially, to the satisfaction of all concerned. Although several of the principals, in the present study, were classified as over valuing individuals, there was no evidence that their interaction, for the most part, was at a lower level than that of other administrators. In fact, it often appeared higher although, perhaps, not significantly so.

A second observation is warranted concerning the very low interaction scores of pupils. If the principal is indeed isolated from his pupils, it would appear that the image of the principal held by patrons would be obtained, chiefly, through the communication of other school personnel. On the other hand, the principal's perceptions of pupils must come from teachers and other school personnel, alone. The implications of this isolation are apparent in terms of staff evaluation, public relations, et cetera.

Since the size of schools affects the interaction of principal and pupil, it is apparent that the nature of leadership is somehow more impersonal in the larger schools. Whether or not the leadership within the formal structure of large schools is significantly different, in terms of effectiveness, from that evidenced in the smaller schools is a question which remains unanswered.



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APPENDIX A

COMMUNICATIONS SENT TO SCHOOLS



4.1



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R. S. S.

With a grant from the U.S. Office of Education. members of the Michigan State University staff are conducting a study of new high school buildings in the United States. Specifically we are interested in determining the effects of school building design and utilization upon the people who use the buildings. During the year, approximately thirty high schools will be selected throughout the country for These buildings will have been completed and occustudy. pied during the four year period of 1955-1958. Examples will be selected from among conventional compact buildings and among those which are decentralized in a campus arrangement. Within the compact and campus types, we will seek those which are organized along a "School-within-School" pattern and those which are organized along more conventional lines. All buildings should be "outstanding examples" of school architecture regardless of basic design scheme or pattern of organization. Comparisons will then be made in the patterns of interaction of school personnel and students among the extreme types.

As a person with recognized ability and judgment in the school plant field, you can assist us greatly in the selection of schools to be studied. Would you compile a list of not more than six high schools completed and occupied between 1955 and 1958 which you believe to be among the best buildings in your state? It would racilitate our efforts if you could also identify the superintendent of the school districts involved.

We should like to forward you a copy of the final report of our study for your files.

Very cordially yours,

# MICHIGAN STATE UNIVERSITY

Ref.: U.S. Office of Education Project No. 918			March, 1960	
No.	Name of	High School	Location	Superintendent of District
1.	<u></u>			
2.				
3.				
4.			•	
5.				
6.			······································	

Signature:

Δ.

Please return to:



May 7, 1960

Dear Mr.

The United States Office of Education is supporting a study to determine the effects, if any, of school building design and utilization upon the interactions and attitudes of the staff and students of thirty of the nation's outstanding high schools. The study will be conducted by a research team from Michigan State University during the Fall of 1960. Many nonbuilding factors obviously affect patterns of interaction, therefore, schools will be chosen from every region of the country and from each major type of school-community in order to obtain the necessary representation in our sample.

Earlier this year, each state department of public instruction gave us a list of the six most outstanding new high schools in its state. The \_\_\_\_\_\_\_ high school of your district was so recommended to us as a possible example for study; hence, our letter to you. The study would involve approximately two hours of testing among staff and students spread over a two day period in the Fall of 1960. In addition, the study team would conduct a complete survey of the building itself. The district will of course, share in the results and attendant publicity associated with the study.

If you would like to discuss the possibilities of participating in the study, we would like to have a member of our staff visit with you personally at your convenience in May. The staff member will be prepared to discuss all details of the study with you at that time, and to make final selection of the schools for our sample of thirty.

Meantime, our initial selection of schools to be visited would be greatly facilitated if you could direct a member of your staff to complete the following inventory of your school district and of the characteristics of the new high school.

We should appreciate very much your early reply.

Very cordially yours,

Name of District

# MICHIGAN STATE UNIVERSITY

Study of Effects of Building Design and Utilization

Upon High School Staff and Student Personnel

Financed Under Public Law 531

U. S. Office of Education, Project No. 918

1. SCHOOL DISTRICT INFORMATION

> The high schools selected for study should be representative of the diverse school districts found in the United States. Would you please provide the following information concerning your school district?

What grades are taught in the school district? (Check) **A**.

() K-12 () 7-12 () 9-12 () 10-12 () Other \_\_\_\_\_ Specify

B. What is the total enrollment of the school district?

What was the approximate per pupil current expenditure C. excluding capital outlay of the school district during 1958-59? (Check)

- () less than \$250 () \$350-399 () \$250-299 () \$300-349 () \$400-499 () \$500 or more () \$350-399
- In what general type of community or area is the school district located? (Check) D.

( ) urban center ( ) village ( ) "bedroom" suburb ( ) non-farm ( ) industrial suburb ( ) rural farm ( ) Other \_\_\_\_\_\_ rural \_\_\_\_\_ (specify)
()1 ()2 ()3 ()4 or more

F. Approximately how many square miles are enclosed by the school district? (Check)

() less than five () 5-10 () 11-15 () 16-20 () 21-25 () 26-30 () more than thirty

II. INFORMATION ABOUT THE \_\_\_\_\_\_ HIGH SCHOOL.

The high schools selected for study should be representative of the diverse types of schools found in the United States. Would you please provide the following information concerning the high school.

- A. What grades are included in the high school? (Check) () 7-12 () 8-12 () 9-12 () 10-12 () 10-13
- B. What is the current enrollment per grade?

7 8 9 10 11 12 Total

C. From approximately what radius does the school draw its students? (Check)

() less than 1 mile () 1-3 miles () 4-6 miles () 7-9 miles () 10-15 miles () more than 15 miles

D. Approximately what proportion of the student body is transported by school buses? (Check)

() none () less than 10% () 10-25% () 26-40% () 41-70% () more than 70%

E. How many full time non-teaching certificated personnel (e.g. librarian, administrators, counselors) are employed in the high school? (Include combination teacher-counselors, etc. under F. below)



- F. How many full time classroom teachers are employed in the high school?
- G. Approximately what number of the professional staff are males?
- III. INFORMATION CONCERNING HIGH SCHOOL ORGANIZATION AND PROGRAM

The high schools selected for study should be representative of the diverse patterns of organization and variety of school programs of high schools within the United States. To assist us in the selection of high schools for study would you please provide us with the following information.

A. Approximately what proportion of the high school's graduates attend college? (Check)

() less than 25% () 25-49% () 50-74% () 75% or more

\_\_\_\_\_P.M. \_\_\_\_ Total

B. Into how many class periods is the typical school day divided?

A.M.

C. How many minutes are allotted to the typical class period? (Check)
() 45 () 50 () 55 () 60 () 70 Other: (Specify)
D. How many minutes are typically allotted to period changes? (Check)
() 3 () 4 () 5 () 6 () 7 Other: (Specify)

E. Approximately how many students are currently enrolled in each of the following types of high school programs?

	Type of Program	Number Enrolled
1.	College Preparatory:	
2.	Commercial:	



3.	General:	
4.	Other (Specify):	

F. Is a copy of the course schedule for the current semester available? If so, would you please attach a copy to this questionnaire? If not, would you answer the following questions?

- 1. How many one-semester courses are currently taught?
- 2. How many two-semester courses are currently taught?
- 3. Is there a "homeroom" provided each student? If so, how frequently does "homeroom" meet each week?
- 4. Is there a study hall provided?
- 5. Is there an "activity" or "extra-curricular" period scheduled at some time during the regular school week?
- G. Which of the following two statements most closely describes your high school plan of operation? If neither, please describe briefly how your plan operates.
  - () 1. Students move each 45-70 minutes from class to class in order to pursue a course of 4-6 subjects with different teachers. Teachers normally remain in their subject area classrooms.
  - () 2. Students remain in one area of the building for "blocks of time" (longer than one period) with the same teacher or team of teachers in order to pursue their "basic" or "general education" subjects.
  - () 3. Other: (Please describe briefly) \_\_\_\_\_

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- IV. INFORMATION CONCERNING THE HIGH SCHOOL BUILDING AND SITE
  - A. Approximately how many acres are contained in the school site? (Check)

() less than \$0 () 11-20 () 21-30 () 31-40 () 41-60 () more than 60

B. How many stories are provided in the classroom sections of the building? (Check)

() 1 () 2 () 3 or more

- C. When was the building first occupied? (Check) () 1954 () 1955 () 1956 () 1957 () 1958 () 1959
- D. Is a descriptive brochure (e.g. dedication program) which contains a rough floor plan of the building available? If so, please attach a copy to the questionnaire. If not, please provide the following information.

1. Building Spaces: (Please indicate the number of each of the following types of spaces provided in your building)

	Type of Space	No. of Rooms
a.	Auditorium	
<b>b</b> .	Administrative offices	
с.	Business education	
d.	Art	
е.	Library	
f.	General classrooms	
g.	Science	
h.	Food service	
i.	Physical education	



T	No.	of	Rooms	
j.	Health services			
k.	Teachers lounge			
1.	Guidance			
m.	Music			
n.	Shop	-		

- E. Which of the following statements most closely describes the manner in which pupils are distributed within your building? Please recognize that some portions of the building (e.g. gym or lunchroom) may be used by all pupils.
  - () 1. "Grade Level Distribution": pupils are grouped on separate floors, in separate wings, or in separate "little schools" according to separate grade levels (i.e. each grade has its own floor, wing, or "little school.")
  - () 2. "School-Within-School Distribution": pupils in groups from all grade levels (e.g. 100 pupils from each grade 10, 11, 12) are housed on separate floors, in separate wings, or in separate "little schools" for substantial portions of the total school program.
  - () 3. "Subject Area Distribution": each floor, wing or "little school" houses a different subject area or combination of subject areas. Fupils normally move from area to area throughout the building.
  - () 4. Other: (Please describe briefly)

Please Return to: K. T. HEREFORD, PROJECT 918 COORDINATOR 404 COLLEGE OF EDUCATION MICHIGAN STATE UNIVERSITY EAST LANSING, MICHIGAN 129

We are now sending questionnaires to the superintendents of the schools that you recommended. It is possible that these superintendents will ask questions of you concerning this study. Therefore, for your own information and in order to answer such questions, we are sending you a copy of the study proposal that has been approved by the U. S. Office of Education.

Should you find time to study our proposal, we would appreciate comments that would assist us in obtaining the most valid results possible.

Your cooperation is extremely gratifying.

Research Staff U.S. Project 918 School Building Design Study



May 16, 1960

Dear Mr.

We are presently visiting the following high schools in your state which you have recommended for our nationwide study of school building design and utilization.

School	Location	Superintendent
		• • • • • • • • • • • • • • • • • • •

Our staff will be obtaining various information concerning the school buildings and districts.

Very cordially yours,



# APPENDIX B

# PROJECT 918 INSTRUMENTATION

۵.



U. S. Office Project 918

College of Education

Michigan State University

... About Project 918

Your school has been chosen as one of 30 representative new high schools in the United States. Each of these schools will be studied by a research team from Michigan State University. Funds for the project are provided by the Congress of the United States through the U. S. Office of Education.

The purpose of Project 918 is to see if there are any real differences in the way teachers and students work and study together in different kinds of high school buildings.

If such differences can be found, it will point the way to the design of better high school buildings, and consequently better high school teaching and learning.

In the next hour would you please help in this important study by carefully and honestly completing each of the following questionnaires and inventories. Each questionnaire is self-explanatory. You should proceed from one to the other without waiting for additional directions. All information will be kept in strictest confidence. Your responses will be seen only by a research team at Michigan State University.

Thank you for your cooperation.

K. T. Hereford Project Coordinator Michigan State University.

### GENERAL INFORMATION

1.	Name (Please Print)
	Last First
2.	Name of school
3.	a. Title of your position
	b. Number of years in this position
4.	How many years of professional experience have you had? (check one)
	less than 1 1 2 3 4 5-9 10-15 16-20 21 or more
5.	What is your age? (check one) 20-24 25-29 30-34 35-39 40-44
	45-49 50-59 60 or more
6.	a. What is your sex? Male Female b. Are you married? Yes No
7.	What is the highest academic degree that you hold?
	Bachelors Masters Doctorate Others (specify)

How would you describe the aesthetics of your high school building? Check (x) the <u>one</u> word in <u>each</u> of the following 19 pairs of adjectives which you believe best describes your building? Please do not leave out any of the 19 choices.

1.	uninvitingwarm
2.	adultlikeyouthful
3.	comfortableuncomfortable
4.	interestinguninteresting
5.	unfriendlyfriendly
6.	factorylikeresidential
7.	weakstrong
8.	goodbad
9.	dimbright
10.	colorfuldrab
11.	cleandirty
12.	differentindistinguishable
13.	artisticclumsy
14.	activepassive
15.	softhard
16.	tiringrestful
17.	inconvenientconvenient
18.	institutionalresidential
19.	considerateindifferent

#### PERSONAL CHARACTERISTICS CHECK-LIST

Teachers and students have many different personal traits. It would help us develop a better understanding of your school, if you would describe yourself as you believe you really are. Please remember that all of your responses are kept in strictest confidence. On the next two pages are 49 words which are commonly used to describe people. Try to describe yourself as accurately as possible by completing the two columns of words.

<u>In Column</u> I, please write by each word how much of the time you believe that you are this kind of person. Choose the one response (1 through 5) which best describes your belief about yourself. When you have completed all 49 words in Column I, then go to Column II.

In <u>Column II</u>, indicate for each of the 49 words <u>how you feel</u> about yourself in terms of each trait. Choose the one response (1 through 5) which best describes your feeling.

In the example, the person responding has said in effect:

In Column I: I am an academic kind of person a good deal of

the time (4); and in Column II: I like myself in this respect. (4)

> Please proceed to complete Columns I and II for each trait word

		here i Beter he Church		135
AITS:			<u>Column</u> <u>I</u>	<u>Column II</u>
			How much of the time am I this kind of person?	How do I feel about being this kind of person?
SPONSES :			<ol> <li>Seldom</li> <li>Occasionally</li> <li>About half the time</li> <li>Good deal of the time</li> <li>Most of the time</li> </ol>	<ol> <li>Very much dislike</li> <li>Dislike</li> <li>Neither like nor dislike</li> <li>Like</li> <li>Very much like</li> </ol>
KAMPLE:		academic		4
	1.	acceptable		
	2.	accurate		
	3.	alert		
	4.	ambitious		
	5.	annoying		
	6.	busy		
	7.	calm		
	8.	charming		
	9.	clever		
	10.	competent		
	11.	confident		
	12.	considerate		
	13.	cruel		
	14.	democratic		
	15.	dependable		
	16.	economical		
	17.	efficient		
	18.	fearful		
	19.	friendly		
	20.	fashionable		
	21.	helpful		
	22.	intellectual		

23.	kind	
24.	logical	
25.	meddlesome	
26.	merry	
27.	mature	
28.	nervous	
29.	normal	
30.	optimistic	
31.	poised	
32.	purposeful	
33.	reasonable	
34.	reckless	
35.	responsible	
36.	sarcastic	
37.	sincere	
38.	stable	
39.	studious	
40.	successful	
41.	stubborn	
42.	tactful	
43.	teachable	
44.	useful	
45.	worthy	
46.	broad-minded	
47.	businesslike	
48.	competitive	
49.	fault-finding	

## CHARACTERISTICS OF OTHERS CHECK-LIST

ince a high school is made of people who work and study together, our understanding of our school would be more complete if we could have your beliefs about the kinds of eople in your school.

Please think about the persons whom you feel are your friends. Although your friends may be somewhat different in many ways, try to think of the "average person" among your friends; or think of "your friends in general." Then try to put yourself in the place of this "average friend" and fill out the same two column check-list that you completed for yourself.

TRAITS:		Column I	Column II
		How much of the time do your	How do your "friends
		"Irlends in general" believe	in general" reel about
		of person?	respect
		1. Seldom	1. Very much dislike
		2. Occasionally	2. Dislike
		3. About nair the time	3. Neither like nor dislike
		4. Good deal of the time	4. Like
		5. Most of the time	5. Very much like
1	. acceptable		
2	. accurate		
3	. alert		
4	. ambitious		
5	. annoying		
6	. busy		
7	. calm		
8	. charming		
9	. clever		
10	. competent		
11	. confident		
12	. considerate		
13	. cruel		
14	. democratic		
15	. dependable		
16	. economical		
17	. efficient		
18	. fearful		
19	. friendly		

20.	fashionable	
21.	helpful	
22.	intellectual	
23.	kind	
24.	logical	
25.	meddlesome	
26.	merry	
27.	mature	
28.	nervous	
29.	normal	
30.	optimistic	
31.	poised	
32.	purposeful	
33.	reasonable	
34.	reckless	
35.	responsible	
36.	sarcastic	
37.	sincere	
38.	stable	
39.	studious	
40.	successful	
41.	stubborn	
42.	tactful	
43.	teachable	
44.	useful	
45.	worthy	
46.	broad-minded	
47.	businesslike	
48.	competitive	
49.	fault-finding	

Contrast data a scall -----time shirt and the -----

### HIGH SCHOOL CHARACTERISTICS CHECK-LIST

<u>First</u>, in Column I, describe how your high school appears to be at this time in terms of each of the 16 characteristics. To do so, decide how much of the time each of the characteristics appears to be adequate in your high school. At the top of Column I is a list of five possible responses. Choose the response which best describes how much of the time each characteristic is adequate in your high school.

<u>Second</u>, in Column II, describe how you feel about your high school as it appears to be at this time. To do so, decide how you feel about each of the characteristics which you have described in Column I. At the top of Column II is a list of five possible responses. Choose the one response which best describes how you feel about each characteristic.

Cha	racteristic of the High School	<u>Column I</u> How much of the time <u>do you believe</u> each of the following characteristics of your high school is adequate?	<u>Column II</u> How <u>do you feel</u> about the adequacy of each of the characteristics of your high school?
		<ol> <li>Seldom</li> <li>Occasionally</li> <li>About half the time</li> <li>Good deal of the time</li> <li>Most of the time</li> </ol>	<ol> <li>Very much dislike</li> <li>Dislike</li> <li>Neither like nor dislike</li> <li>Like</li> <li>Very much like</li> </ol>
EXA	MPLE: Academic Freedom	4	4
1.	Homework		
2.	Library services		
3.	Discipline		
4.	Cooperation among teachers		
5.	Quality of instruction		
6.	Teacher-Student relations		
7.	Administrator-Teacher relations		
8.	Counseling and guidance services		
9. 10	Quality of student body		
10.	Quality of student leadership		
11. 12	Quality of student organizations		
12.	Cooperation of parents		
13.	Quality of building and facilities		
14.	Academic standing of high school		
15.	Relationships with other high schools		
16.	Relationship with the local community		

#### KNOWING STAFF PERSONNEL

One of the most difficult tasks for the administrator usually is learning to know his staff members. As a simple challenge to your knowledge of the staff, would you please choose the three (3) <u>teachers</u> that you feel you know <u>best</u>, from all of those on your staff. Please limit your to those who teach in grades 9, 10, 11 or 12.

Please try to supply the requested information about <u>each</u> of the three (3) <u>teachers</u> from memory. Please do not consult your records or other sources for help. The questions are so designed that it will be <u>impossible</u> for most administrators to supply all requested information accurately. Please, therefore, do not feel embarrassed if you cannot answer all questions to your satisfaction from memory.

Teacher	Number	One
---------	--------	-----

am	e of Teacher:	2013 20.000
	Last	First
	How many years of teaching experience has he or s less than 1 1 2 3 4 5-9 1	he had? (check one) 0-15 16-20 21 or more
	What is the age of this teacher? (check one) 20 40-44 45-49 50-59 60 or more	-24 25-29 30-34 35-39
	a. Sex of teacher. Male Female b. Is	he or she married? Yes No
	If he or she is married, what is spouse's occupat	ion?
	How many years has he or she been employed on thi less than 1 1 2 3 4 5 6-9	s high school staff? 10-1516-2021 or mor
	What is the highest academic degree he or she hol Bachelors Masters Doctorate Others (s	ds? pecify)
	List subjects and grade levels that he or she is $\underline{Subject}$	presently teaching. Grade Level
		niti in
	What is his or her father's occupation? (If dece	ased, what was it?)
	Which of the following teaching tasks do you beli (check one)	eve he or she finds most difficul
	<ol> <li>preparing lesson plans</li> <li>evaluating student performance</li> <li>introducing new teaching techniques</li> </ol>	<ul> <li>4. working on faculty committ</li> <li>5. being accepted by student</li> <li>6. relating himself to the si</li> </ul>

).	Which of the following teaching tasks does he or she find to be <u>easiest</u> ? (check one)
	1. preparing lesson plans 4. Working on faculty committees
	3 introducing new teaching techniques 6 relating yourself to the staff
	Where is his or her hirthplace?
	State
	Teacher Number Two
lam	e of Teacher:
	Last First
L.	How many years of teaching experience has he or she had?       (check one)         less than 1       1       2       3       4       5-9       10-15       16-20       21 or more
2.	What is the age of this teacher: (check one) 20-24 25-29 30-34 35-39 40-44 45-49 50-59 60 or more
3.	a. Sex of teacher. Male Female b. Is he or she married? Yes No
4.	If he or she is married, what is spouse's occupation?
5.	How many years has he or she been employed on this high school staff? less than 1 1 2 3 4 5 6-9 10-15 16-20 21 or more
6.	What is the highest academic degree he or she holds? Bachelors Masters Doctorate Others (specify)
7.	List subjects and grade levels that he or she is presently teaching. Subject Grade Level
8.	What is his or her father's occupation? (If deceased, what was it?)
9.	Which of the following teaching tasks do you believe he or she finds <u>most difficult</u> ? (check one)
	1. preparing lesson plans4. working on faculty committees2. evaluating student performance5. being accepted by student body3. introducing new teaching techniques6. relating himself to the staff
10.	Which of the following teaching tasks does he or she find to be easiest? (check one)
	1. preparing lesson plans4. working on faculty committees2. evaluating student performances5. being accepted by student body3. introducing new teaching techniques6. relating yourself to the staff
11.	Where is his or her birthplace?
	State

Teacher Number Three

	Last	First
How many less tha	y years of teaching experience has he or an 1 1 2 3 4 5-9	she had? (check one) 10-1516-2021 or more
What is 40-44	the age of this teacher: (check one) 45-4950-5960 or more	20-24 25-29 30-34 35-39
a. Sex	of teacher. Male Female b. In	s he or she married? Yes No
If he on	r she is married, what is spouse's occup	ation?
How many less tha	y years has he or she been employed on than 1 1 2 3 4 5 6	nis high school staff? -910-1516-2021 or more
What is Bachelon	the highest academic degree he or she h rs Masters Doctorate Others	olds? (specify)
List sul	bjects and grade levels that he or she is Subject	s presently teaching. <u>Grade Level</u>
What is	his or her father's occupation? (If de	ceased, what was it?)
Which of (check of	f the following teaching tasks do you be one)	lieve he or she finds most difficult?
1.	preparing lesson plans	4. working on faculty committees
2.	evaluating student performance	5. being accepted by student bod
3.	introducing new teaching techniques	6. relating himself to the staff
Which of	f the following teaching tasks does he of	she find to be easiest? (check one)
1.	preparing lesson plans	4. working on faculty committees
2.	evaluating student performances	5. being accepted by student body
3.	introducing new teaching techniques	6. relating yourself to the staf
Where is	s his or her birthplace?	
		State

U. S. Office Project 918

College of Education

Michigan State University

... About Project 918

Your school has been chosen as one of 30 representative new high schools in the United States. Each of these schools will be studied by a research team from Michigan State University. Funds for the project are provided by the Congress of the United States through the U. S. Office of Education.

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If such differences can be found, it will point the way to the design of better high school buildings, and consequently better high school teaching and learning.

In the next two-hour period, would you please help in this important study by carefully and honestly completing each of the following questionnaires and inventories. Each questionnaire is self-explanatory. You should proceed from one to the other without waiting for additional directions. All information will be kept in strictest confidence. Your responses will be seen only by a research team at Michigan State University.

Thank you for your cooperation.

K. T. Hereford Project Coordinator Michigan State University

# GENERAL INFORMATION

1

Nam	Last	First
1.	How many years of teaching experiences have yo	u had? (check one)
	less than 1 1 2 3 4 5-9	10-15 16-20 21 or more
C	Libet to your cool (check one) 20.24 25.2	
۷.	what is your ager (check one) 20-24 25-2	9 50-54 55-59 40-44
	45-49 50-59 60 or more	
3.	A. What is your sex? Male Female B.	Are you married? Yes No
4.	How many years have you been employed on this	high school staff?
	less then 1 1 2 3 4 5	6-9 10-15 16-20 21 or more
5.	What is the highest academic degree that you h	old?
	Bachelors Masters Doctorate Others	(specify)
6.	If you teach: List those subjects and grade 1	evels that you are now teaching.
	Subject	Grade Level
-		
1.	what is your father's occupation? (If decease	a, what was it? Flease be precise.)
8.	If you are married: What is your spouse's occ	upation?
9.	Which of the following tasks involved in teach	ing do you find most difficult? (check or
	<u>1.</u> preparing lesson plans 2. evaluating student performance	4. working on faculty committees
	3. introducing new teaching techniques	6. relating yourself to the staff
10.	Which of the following tasks do you find to be	easiest? (check one)
	1. preparing lesson plans	4. working on faculty committees
	<ul> <li>2. evaluating student performance</li> <li>3. introducing new teaching techniques</li> </ul>	5. being accepted by student body 6. relating yourself to the staff
11.	In what state were you born?	
12	What is your best estimate of the total number	of different students which you now
	have enrolled in <u>all</u> of your classes?	different students

(number)

Now would you describe the classroom in which you are now located? Check (x) the <u>one</u> word in <u>each</u> of the following 19 pairs of adjectives which you believe best describes whis classroom. Please do not leave out any of the 19 choices.

1.	dimbright
2.	colorfuldrab
3.	unfriendlyfriendly
4.	cleandirty
5.	inconvenientconvenient
6.	factorylikeresidential
7.	interestinguninteresting
8.	goodbad
9.	differentindistinguishable
10.	artisticclumsy
11.	activepassive
12.	uninvitingwarm
13.	weakstrong
14.	adultlikeyouthful
15.	softhard
16.	tiringrestful
17.	institutionalresidential
18.	comfortableuncomfortable
19.	considerateindifferent
Bef cla	ore turning the page, write in the number of this ssroom, and the subject taught here.

Room Number: \_\_\_\_\_ Subject Taught: \_\_\_\_\_

You have already described the aesthetics of your classroom. Think now in terms of your high school building as a whole.

How would you describe the aesthetics of your high school building? Check (x) the one word in <u>each</u> of the following 19 pairs of adjectives which you believe best describes your building? Please do not leave out any of the 19 choices.

1.	uninvitingwarm	
2.	adultlikeyouthful	
3.	comfortableuncomfortable	<u></u>
4.	interestinguninteresting	<del></del>
5.	unfriendlyfriendly	
6.	factorylikeresidential	
7.	weakstrong	
8.	goodb <b>a</b> d	
9.	dimbright	
10.	colorfuldrab	
11.	cleandirty	
12.	indistinguishabledifferent	
13.	artisticclumsy	
14.	activepassive	
15.	softhard	
16.	tiringrestful	
17.	inconvenientconvenient	
18.	institutionalresidential	
19.	considerateindifferent	

## ACTIVITY SCOPE SCALE

eachers are consulted about a variety of professional issues. Below are nine hypothetical ituations in which teachers may be consulted by administrators in a high school. To hat extent do you believe that you would be consulted professionally by your administrators n each of the nine situations if they were to occur in your school. Check the response hich most closely matches your belief about each situation.

		ALWAYS	FREQUENTLY	SELDOM	<u>NEVER</u>
XA	MPLE: When the evaluation of the school curriculum is undertaken		<u> </u>		
•	When a task such as the selection of a new textbook for a course you are teaching is undertaken				
	When a problem such as determining the responsibilities of the high school teacher in community affairs is be considered.	es ing 			
	When a problem such as adding a new unit into a course outline that you are teaching is being considered.				
۰.	In deciding whether or not your class should take a field trip.				
ö.	In deciding such an issue as keeping a student from participating in special activities for uncooperative behavior.				
<b>.</b>	When a question concerning the adequacy of a course outline that you use in teaching is brought up.				
1.	When a problem such as determining either the maximum or minimum homework load for students is brought up.				
3.	When a problem such as determining the grading standards to be employed by the high school staff is brought up.				
).	When a problem such as determining the kinds of instructional materials needed by teachers is considered.				

# SOURCES OF HELP INVENTORY

Tead for prob for the	thers, like other professional persons, assistance on professional and personal olem situations, would you indicate the assistance. Remember that your respons Michigan State University research team	frequent concerns one perso e will no	ly turn to other qualified persons s. In each of the following hypothetical on to whom you would most likely turn ot be seen by any persons other than
1.	If you were having difficulty in <u>prepar</u> turn for advice or assistance? (check	ing a lea one)	sson plan, to whom would you most likely
	<pre>1. principal 2. vice-principal 3. teacher-friend 4. student-group 5. department head</pre>	6. 7. 8. 9.	another teacher teaching the same subject out-of-school friend house administrative leader other (identify)
2.	If you were having difficulty <u>evaluatin</u> likely turn for advice or assistance?	ig a stude (check of	ent's performance, to whom would you most ne)
	1.principal2.vice-principal3.teacher-friend4.student-group5.department head	6. 7. 8. 9.	another teacher teaching the same subject out-of-school friend house administrative leader other (identify)
3.	If you were having difficulty <u>introduci</u> likely turn for advice or assistance? 1. principal 2. vice-principal 3. teacher-friend 4. student-group 5. department head	ng a new (check on 6. 7. 8. 9.	teaching technic, to whom would you most he) another teacher teaching the same subject out-of-school friend house administrative leader other (identify)
4.	If you were having difficulty working of likely turn for advice or assistance?	on a facu (check on	lty committee, to whom would you most ne)
	<pre>1. principal 2. vice-principal 3. teacher friend 4. student-group 5. department head</pre>	6. 7. 8. 9.	another teacher teaching the same subject out-of-school friend house administrative leader other (identify)
5.	If you were having difficulty <u>feeling</u> a you most likely turn for advice or assi	stance?	by some of your students, to whom would (check one)
	<pre>1. principal 2. vice-principal 3. teacher-friend 4. student-group 5. department head</pre>		another teacher teaching the same subject out-of-school friend house administrative leader other (identify)
6.	If you were having difficulty with your would you most likely turn for advice of	relation or assista	nships with another staff member, to whom ance? (check one)
	<pre>1. principal 2. vice-principal 3. teacher-friend 4. student-group 5. department head</pre>	6. 7. 8. 9.	another teacher teaching the same subject out-of-school friend house administrative leader other (identify)

One of the difficult tasks of the high school teacher who has as many as 90 to 120 different students each day is to get to know these students.

As a simple challenge to your own knowledge of your students, would you please choose the one (1) student from all of those you are now teaching in grades 9, 10, 11, or 12 whom you feel you know best.

Please try to supply the requested information about this student from memory. Please do not consult your cumulative records or other sources for help. The questions are so designed that it will be impossible for most teachers to supply all requested information accurately. Please, therefore, do not feel embarrassed if you cannot answer all questions to your satisfaction from memory.

1.	Name of student		
	Last	First	Middle
2.	How long have you known this student? more than 3 years	(check) less that	an 1 year 1 to 3 years
3.	Do you know this student from out-of-sc If yes, through family? neighborhoo	hool contacts? Y d? other?	les No
4.	Age of student (check) 14 15 9 10 11 12; Sex (ch	16 17 eck) Male	<pre>18; Grade of student (check Female</pre>
5.	Occupation of student's father		
6.	Number of children in student's family.	Boys Girls	;
7.	Do the parents hope this student will g	o to college? Ye	es No
8.	Does this student plan to go to college	? Yes No	
9.	Which of the following subjects does th English Mathematics Histor	is student find <u>e</u> y Science	asiest? (check one)
10.	Which of the following subjects does th English Mathematics History	is student find <u>h</u> y Science	ardest? (check one)
11.	Does this student have a hobby? Yes	_ No If yes,	what is it?
	If there are several, give the one in w	hich he or she is	most interested.
12.	Is this student "going steady" at the p	resent time? Yes	No
13.	How would you classify this student? (o opinion)	check the one res	ponse closest to your own
	a. one of the in the scl	e top students hool	

c. a below-average student

### STAFF PERSONNEL

umber
umber
umber

## PERSONAL CONTACT CHECKLIST

How frequently do you get to discuss your professional concerns with each of the following persons? (check one response for each person)

	2 or 3 Times Each Day	Nearly Everyday	Frequently	Occasionally	Rarely
1. Principal					
2. Vice-Principal					
3. Guidance Counselor					
4. "House" Administrator (if	any)				
5. Department Head (if any)					
6. Teacher of same subject					
-7. Teacher of other subjects					

What do you consider to be three chief or major

problems which teachers have in your school?

1.	
2.	
3.	

Teachers and students have many different personal traits. It would help us develop a better understanding of your school, if you would describe yourself as you believe you really are. Please remember that all of your responses are kept in strictest confidence. On the next two pages are 49 words which are commonly used to describe people. Try to describe yourself as accurately as possible by completing the two columns of words.

<u>In Column</u> <u>I</u>, please write by each word how much of the time you believe that you are this kind of person. Choose the one response (1 through 5) which best describes your belief about yourself. When you have completed all 49 words in Column I, then go to Column II.

<u>In Column II</u>, indicate for each of the 49 words <u>how you feel</u> about yourself in terms of each trait. Choose the one response (1 through 5) which best describes your feeling.

In the example, the person responding has said in effect: In Column I: I am an <u>academic</u> kind of person <u>a good deal of</u>

the time (4); and in

Column II: I like myself in this respect. (4)

Please proceed to complete Columns I and II for each trait word 143
TRAITS:			<u>Column</u> I	<u>Column</u> II
			How much of the time am I this kind of person?	How do I feel about being this kind of person?
RESPONSES :			<ol> <li>Seldom</li> <li>Occasionally</li> <li>About half the time</li> <li>Good deal of the time</li> <li>Most of the time</li> </ol>	<ol> <li>Very much dislike</li> <li>Dislike</li> <li>Neither like nor dislike</li> <li>Like</li> <li>Very much like</li> </ol>
EXAMPLE:	· · · · · · · · · · · · · · · · · · ·	academic	4	
	1.	acceptable		
	2.	accurate		
	3.	alert		
	4.	ambitious		
	5.	annoying		
	6.	busy		
	7.	calm		
	8.	charming		
	9.	clever		
	10.	competent		
	11.	confident		
	12.	considerate		
	13.	cruel		
	14.	democratic		
	15.	dependable		
	16.	economical		
	17.	efficient		
	18.	fearful		
	19.	friendly		
	20.	fashionable		
	21.	helpful		
	~~	intellectual		

23.	kind		
24.	logical		
25.	meddlesome		
26.	merry		
27.	mature		
28.	nervous		
29.	normal	<u>.</u>	
30.	optimistic		
31.	poised		
32.	purposeful		
33.	reasonable		
34.	reckless		
35.	responsible		
36.	sarcastic		
37.	sincere		
38.	stable		
39.	studious		
40.	successful		
41.	stubborn		
42.	tactful		
43.	teachable		
44.	useful		
45.	worthy		
46.	broad-minded		
47.	businesslike		
48.	competitive		
49.	fault-finding		

#### CHARACTERISTICS OF OTHERS CHECK-LIST

Since a high school is made of people who work and study together, our understanding of your school would be more complete if we could have your beliefs about the kinds of people in your school.

Please think about the persons whom you feel are your friends. Although your friends may be somewhat different in many ways, try to think of the "average person" among your friends; or think of "your friends in general." Then try to put yourself in the place of this "average friend" and fill out the same two column check-list that you completed for yourself.

TRAITS:		Column I How much of the time do your "friends in general" believe themselves to be this kind of person?	Column II How do your "Friends in general" feel about themselves in this respect.
		<ol> <li>Seldom</li> <li>Occasionally</li> <li>About half the time</li> <li>Good deal of the time</li> <li>Most of the time</li> </ol>	<ol> <li>Very much dislike</li> <li>Dislike</li> <li>Neither like nor disli</li> <li>Like</li> <li>Very much like</li> </ol>
1.	acceptable		
2.	accurate		<u>111</u>
3.	alert		2
4.	ambitious		<u> 20</u>
5.	annoying		
6.	busy		
7.	calm		
8.	charming		
9.	clever		1. N.
10.	competent		
11.	confident		
12.	considerate		
13.	cruel		
14.	democratic		
15.	dependable		
16.	economical		
17.	efficient		
18.	fearful		
19.	friendly		

		• 4 -
20.	fashionable	 145
21.	helpful	 
22.	intellectual	 
23.	kind	 
24.	logical	 
25.	meddlesome	 
26.	merry	 
27.	mature	 
28.	nervous	 
29.	normal	 
30.	optimistic	 
31.	poised	 
32.	purposeful	 
33.	reasonable	 
34.	reckless	 
35.	responsible	 
36.	sarcastic	 
37.	sincere	 
38.	stable	 
39.	studious	 
40.	successful	 
41.	stubborn	 
42.	tactful	 
43.	teachable	 
44.	useful	 
45.	worthy	 
46.	broad-minded	 
47.	businesslike	 
48.	competitive	 
49.	fault-finding	 

## HIGH SCHOOL CHARACTERISTICS CHECK-LIST

<u>First</u>, in Column I, describe how your high school appears to be at this time in terms of each of the 16 characteristics. To do so, decide how much of the time each of the characteristics appears to be adequate in your high school. At the top of Column I is a list of five possible responses. Choose the response which best describes how much of the time each characteristic is adequate in your high school.

<u>Second</u>, in Column II, describe how you feel about your high school as it appears to be at this time. To do so, decide how you feel about each of the characteristics which you have described in Column I. At the top of Column II is a list of five possible responses. Choose the one response which best describes how you feel about each characteristic.

Cha	racteristic of the High School	<u>Column I</u> How much of the time <u>do you believe</u> each of the following characteristics of your high school is adequate?	<u>Column II</u> How <u>do you feel</u> about the adequacy of each of the characteristics of your high school?
		<ol> <li>Seldom</li> <li>Occasionally</li> <li>About half the time</li> <li>Good deal of the time</li> <li>Most of the time</li> </ol>	<ol> <li>Very much dislike</li> <li>Dislike</li> <li>Neither like nor dislike</li> <li>Like</li> <li>Very much like</li> </ol>
EXA	MPLE: Academic Freedom	4	4
1.	Homework		
2.	Library services		
3.	Discipline		
4.	Cooperation among teachers		
5.	Quality of instruction		
6.	Teacher-Student relations		
<b>7.</b>	Administrator-Teacher relations		
8.	Counseling and guidance services		
9.	Quality of student body		
LO.	Quality of student leadership		
11.	Quality of student organizations		
LZ.	Cooperation of parents		
13.	Quality of building and facilities		
15	Academic standing of high schools		
16	Relationship with the local community	7	
	Nergeronomip wien ene rocar community	and the product of the second s	

This completes your part in the U. S. Office Project 918. The information will be coded on IBM cards and tabulated along with those of nearly 50,000 other students and teachers in the United States. Thank you again for your splendid cooperation.

> Michigan State University Research Staff



U. S. Office Project 918 College of Education Michigan State University

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Thank you for your cooperation.

K. T. Hereford Project Coordinator Michigan State University

# GENERAL INFORMATION

1.	Name						
	Last First	Middle					
2.	Number of years in this school (count present year as one) (check) 1_4	2 3					
3.	Age Grade (check) 9 10 11 12 (Check one) Male	Female					
4.	Number of brothers sisters						
5.	. What is your father's occupation (if deceased, what was it)?						
		<u> </u>					
	a. Does he get paid by salary? Yes No						
	b. If yes, who does he work for?						
	c. Does he own a business? Yes No						
	d. Does he have any people under him? Yes No						
	e. If yes, about how many?						
6.	Do you plan to go to college? (check) Yes No						
7.	Do your parents hope you will go to college? (check) Yes No						
8.	Of the following subjects, which do you find <u>easiest</u> ? (check one) English Mathematics History Science Art						
9.	Of the following subjects, which do you find <u>hardest</u> ? (check one) English Mathematics History Science Art						
10.	Do you have a hobby? Yes No If yes, what is it?						
	If you have more than one, give the one in which you are most intereste	d.					
11.	Name the teacher whom you feel knows you best. (Please Print)						

How would you describe the classroom in which you are now located? Check (x) the <u>one</u> word in <u>each</u> of the following 19 pairs of adjectives which you believe best describes this classroom. Please do not leave out any of the 19 choices.

1.	dimbright
2.	colorfuldrab
3.	unfriendlyfriendly
4.	cleandirty
5.	inconvenientconvenient
6.	factorylikeresidential
7.	interestinguninteresting
8.	goodbad
9.	differentindistinguishable
10.	artisticclumsy
11.	activepassive
12.	uninvitingwarm
13.	weakstrong
14.	adultlikeyouthful
15.	softhard
16.	tiringrestful
17.	institutionalresidential
18.	comfortableuncomfortable
19.	considerateindifferent
Bef	ore turning the page, write in the number of this

classroom, and the subject taught here.

Room Number: \_\_\_\_\_ Subject Taught: \_\_\_\_\_

3

You have already described the aesthetics of your classroom. Think now in terms of your high school building as a whole.

How would you describe the aesthetics of your high school building? Check (x) the one word in <u>each</u> of the following 19 pairs of adjectives which you believe best describes your building? Please do not leave out any of the 19 choices.

1.	uninvitingwarm	
2.	adultlikeyouthful	
3.	comfortableuncomfortable	
4.	interestinguninteresting	
5.	unfriendlyfriendly	
6.	factorylikeresidential	<u></u>
7.	weakstrong	
8.	goodbad	
9.	dimbright	
10.	colorfuldrab	
11.	cleandirty	<del></del>
12.	indistinguishabledifferent	
13.	artisticclumsy	
14.	activepassive	
15.	softhard	
16.	tiringrestful	
17.	inconvenientconvenient	
18.	institutionalresidential	
19.	considerateindifferent	

### SOURCES OF HELP INVENTORY

itu ind ind ou es	dents, 1 persona icate the r respon earch te	ike everyone else, frequently turn to oth l concerns. In each of the following ima e one person to whom you would most likel ses will not be seen by any persons other am.	er perso ginary p y turn f than th	ns for assistance on problems roblem situations, would you or assistance. Remember that e Michigan State University
•	If you advice	were having difficulty with your studies, or assistance. (check one)	to whom	would you most likely turn for
		house or homeroom teacher student friend principal vice-principal counselor	6. 7. 8. 9.	a friend from out of school student organization parents other (please identify)
	If you likely	were having difficulty in getting teacher turn for advice or assistance. (check on	underst. e)	anding to whom would you most
		house or homeroom teacher student friend principal vice-principal counselor	6. 7. 8. 9.	a friend from out of school student organization parents other (please identify)
	If you most li	were having difficulty in <u>getting along</u> w kely turn for advice or assistance. (che	ck one)	r students, to whom would you
		house or homeroom teacher student friend principal vice-principal counselor	6. 7. 8. 9.	a friend from out of school student organization parents other (please identify)
•	If you you tur	were having difficulty in <u>participating i</u> n for advice or assistance. (check one)	n studen	t activities, to whom would
		house or homeroom teacher student friend principal vice-principal counselor	6. 7. 8. 9.	a friend from out of school a student organization parents other (please identify)
•	If you you tur	were having difficulty <u>deciding on a high</u> n for advice or assistance. (check one)	school	course to take, to whom would
		house or homeroom teacher student friend principal vice-principal counselor	6. 7. 8. 9.	a friend from out of school student organization parents other (please identify)
	If you for adv	were having difficulty in selecting a col ice or assistance. (check one)	lege or	vocation to whom would you turn

1.	house or homeroom teacher	6.	a friend from out of school
2.	student friend	7.	student organization
3.	principal	8.	parents
4.	vice-principal	9.	other (please identify)
5.	counselor		

### OCCUPATIONAL ASPIRATION SCALE

THIS SET OF OUESTIONS CONCERNS YOUR INTEREST IN DIFFERENT KINDS OF JOBS. THERE ARE EIGHT OUESTIONS. EACH ONE ASKS YOU TO CHOOSE ONE JOB OUT OF TEN PRESENTED.

READ EACH OUESTION CAREFULLY. THEY ARE ALL DIFFERENT. ANSWER EACH ONE THE BEST YOU CAN. DON'T OMIT ANY.

- Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN GET when your SCHOOLING IS OVER?
  - 1.1 \_\_\_\_ Lawyer
  - 1.2 \_\_\_\_ Welfare worker for a city government
  - 1.3 \_\_\_\_ United States representative in Congress
  - 1.4 \_\_\_\_ Corporal in the Army
  - 1.5 \_\_\_\_\_ United States Supreme Court Justice 
     1.6
     Might watchman

     1.7
     Sociologist

     1.8
     Policeman

     1.9
     County agricultural agent

     1.10
     Filling station attendant
- 3. Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN GET when your SCHOOLING TS OVER?

  - 3.6 Soda fountain clerk 3.7 Biologist 3.8 Mail carrier

  - 3.9 Official of an international labor union
  - 3.10 Farm hand

- 2. Of the jobs listed in this question, which ONE would you choose if you were FREE TO CHOOSE ANY of them you wished when your SCHOOLING IS OVER?
  - 2.1 Member of the board of directors of a large corporation
  - 2.2 Undertaker 2.3 Banker
  - 2.4 \_\_\_\_ Machine operator in a factory
  - 2.5
     Physician (doctor)

     2.6
     Clothes presser in a laundry

     2.7
     Accountant for a large busines

     2.8
     Rafilroad conductor

     2.9
     Rafilroad engineer

    - \_\_\_\_\_ Railroad engineer
  - 2.10 \_\_\_\_\_ Singer in a night club
  - 4. Of the jobs listed in this question, which ONE would you choose if you were FREE TO CHOOSE ANY of them you wished when your SCHOOLING IS OVER?

    - 4.1 \_\_\_\_ Psychologist 4.2 \_\_\_\_ Manager of a small store in a city
    - 4.3 \_\_\_\_\_ Head of a department in
    - state government
    - 4.4 \_\_\_\_ Clerk in a store
    - 4.5 <u>Cabinet member in the</u> federal government

    - 4.6 \_\_\_\_ Janitor
    - 4.7 \_\_\_\_\_ Musician in a symphony orchestra

    - 4.8 Carpenter 4.9 Radio annound 4.10 Coal miner Radio announcer

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Of the jo	bs 1	isted	in	thi	s que	estic	m,
which is	the 1	BEST	ONE	you	are	REAL	LY
SURE YOU	CAN	HAVE	by t	he	time	you	are
<b>30 YEARS</b>	OLD?						

5.1 Civil engineer	
--------------------	--

- 5.2 Bookkeeper
- 5.3 \_\_\_\_ Minister or priest
- 5.4 \_\_\_\_ Streetcar motorman or city
- hus driver 5.5 \_\_\_\_ Diplomat in the United States
- Foreign Service 5.6 \_\_\_\_\_ Sharecropper (one who owns no livestock or farm machinery.
- and does not manage the farm)
- 5.7 Author of novels
- 5.8 \_\_\_\_\_ Plumber 5.9 \_\_\_\_\_ Newspaper columnist
- 5.10 Taxi driver

Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN HAVE by the time you are 30 YEARS OLD?

7.1	Artist who paints pictures
	that are exhibited in galleries
7.2	Traveling salesman for a
	wholesale concern
7.3	Chemist
7.4	Truck driver
7.5	College professor

- 7.6 \_\_\_\_ Street sweeper
- 7.7 \_\_\_\_\_ Building contractor 7.8 \_\_\_\_\_ Local official of a labor
- union
- 7.9 \_\_\_\_ Electrician
- 7.10 Restaurant waiter

. The occupations which I have thought about going into are: 1. 2. 3. 4.

The occupation that I plan to follow: (Indicate a kind of job)

. If I were absolutely free to go into any kind of work I wanted. my choice would be:

. The type of work I would like to be doing when I am 30 years old is:

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- 6. Of the jobs listed in this question, which ONE would you choose to have when you are 30 YEARS OLD, if you were FREE TO HAVE ANY of them you wished?
  - 6.1 \_\_\_\_ Airline pilot
  - 6.2 Insurance agent
  - 6.3 Architect
  - 6.4 \_\_\_\_ Milk route man
  - \_\_\_\_\_ Mayor of a large city 6.5
  - 6.6 \_\_\_\_ Garbage collector
  - \_\_\_\_ Captain in the armv 6.7
  - Garage mechanic 6.8
  - 6.9 \_\_\_\_ Owner-operator of a printing shop
  - 6.10 Railroad section hand
- 8. Of the jobs listed in this question. which ONE would you choose to have when you are 30 YEARS OLD, if you were FREE TO HAVE ANY of them you wished?
  - 8.1 \_\_\_\_ Owner of a factory that employs about 100 people
  - 8.2 Playground director
  - 8.3 Dentist
  - 8.4 \_\_\_\_ Lumberjack
  - 8.5 Scientist

  - 8.6
     Shoeshiner

     8.7
     Public School teacher

     8.8
     Owner-operator of a lunch stand

     8.9
     Trained machinist

     8.10
     Dock worker

.....

# SOCIAL SCALE

A.	List	t the na	mes of	your two best	friends	that are of	E your own	age group.	(Please Print)		
	1.	Last na	me	First name	Where	did you get	to know t	his friend?	(check one)		
	Cla Sch	sses tog ool club	ether or act	Live in ivities	my neighl Out-of-s	oorhood school club	ChurchOthe	er (name)			
	2 Where did you get to know this friend? (check one) Last name First name										
	Cla: Sch	sses tog ool club	ether or act	Live in ivities	my neighl Out-of-s	oorhood school	_ Church _ Other (na	ume)			
В.	Inf	ormation	concer	ning the clas	ss in whic	ch you are p	presently 1	ocated.			
	1.	How man	y stude	nts are there	e in the d	lass you ar	e taking t	his hour?			
	•		c . 1						number		
	2.	How man	y of th	ese students	do you ge	enerally thi	nk of as a	good friend	1? 		
	3.	Of the	remaini	ng students,	how many	would you b	e willing	to have as a	a		
		good fr	iend?								
									number		
C.	List	t the na	mes of	two adults yo	ou like be	est. <u>Not</u> pa	rents or r	elatives. (1	Ple <b>a</b> se Print)		
	1 Where did you get to know this newson? (shack and)								(check one)		
	1.	Last na	me	First name		ara you get		nis person	(check one)		
				In-school ac	tivities	Out-c	of-school a	ctivities			
	What	t does t	his per	son do for a	living?						
	2.				Where	did vou get	to know t	his person?	(check one)		
		Last na	me	First name		,		Ferrar	(,		
				In-school ad	ctivities	Out-c	of-school a	ctivities			
	What	t does t	his per	son do for a	living?						
D.	List Cheo	t the na ck the g	mes of rade in	the two outst which each s	anding st student le	udent leade ader is enr	ers in your colled.	school. (1	Please Print)		
	1.					Sex MF	,	9 10 1	L 12		
	-•	Last na	me	First name		(Circle	one)	Grade	(Circle one)		
	2.		<u></u>	These		Sex M F	, 	9 10 11			
		Last na	me	First name		(Circle	one)	Grade	(Circle one)		

How frequently do you get to talk with each of the following persons about your school Ε. work or personal problems? (check one response for each person)

2 or 3 Times Nearly Frequently Occasionally Rarely Each Day Everyday

Principal	 	 	
Homeroom Teacher	 	 	<u> </u>
Your Guidance Counselor	 	 	
Librarian	 	 	

F. Building Information

1. How many different subjects would you normally have today?

(circle one) 1 2 3 4 5 6 7

2. In how many different classrooms would you normally have classes today?

Note: include study hall and gym. (circle one) 1 2 3 4 5 6 7

- 3. If your high school building is more than one story high, how many classes would you normally have today on the:
  - a) first floor \_\_\_\_\_ b) second floor \_\_\_\_\_ c) third floor \_\_\_\_\_
- 4. If your school has two or more buildings, how many classes would you normally have today in each of the different buildings? Name of Building
  Number of Classes

	Name of Building	Number of Clas
1.		
2.		
3.		
4.		

G. What do you believe are the three chief or major problems which students have in school?



#### PERSONAL CHARACTERISTICS CHECK-LIST

Teachers and students have many different personal traits. It would help us develop a better understanding of your school, if you would describe yourself as you believe you really are. Please remember that all of your responses are kept in strictest confidence. On the next two pages are 49 words which are commonly used to describe people. Try to describe yourself as accurately as possible by completing the two columns of words.

<u>In Column I</u>, please write by each word how much of the time you believe that you are this kind of person. Choose the one response (1 through 5) which best describes your belief about yourself. When you have completed all 49 words in Column I, then go to Column II.

In <u>Column II</u>, indicate for each of the 49 words <u>how you feel</u> about yourself in terms of each trait. Choose the one response (1 through 5) which best describes your feeling.

In the example, the person responding has said in effect: In Column I: I am an <u>academic</u> kind of person <u>a good deal of</u>

the time (4); and in

Column II: I like myself in this respect. (4)

Please proceed to complete Columns I and II for each trait word

FRAITS:			<u>Column</u> I	<u>Column II</u>
			How much of the time am I this kind of person?	How do I feel about being this kind of person?
RESPONSES :			<ol> <li>Seldom</li> <li>Occasionally</li> <li>About half the time</li> <li>Good deal of the time</li> <li>Most of the time</li> </ol>	<ol> <li>Very much dislike</li> <li>Dislike</li> <li>Neither like nor dislike</li> <li>Like</li> <li>Very much like</li> </ol>
EXAMPLE :		academic		
<u> </u>	1.	acceptable		
	2.	accurate		
	3.	alert		
	4.	ambitious		
	5.	annoying		
	6.	busy		
	7.	calm		
	8.	charming		
	9.	clever		
	10.	competent		
	11.	confident		
	12.	considerate		
	13.	cruel		
	14.	democratic		
	15.	dependable		
	16.	economical		
	17.	efficient		
	18.	fearful		
	19.	friendly		
	20.	fashionable		
	21.	helpful		
	22.	intellectual		

**.** I

23.	kind	 
24.	logical	 
25.	meddlesome	 
26.	merry	 <del></del>
27.	mature	 
28.	nervous	 
29.	normal	 
30.	optimistic	 
31.	poised	 
32.	purposeful	
33.	reasonable	 
34.	reckless	 
35.	responsible	 
36.	sarcastic	 
37.	sincere	 
38.	stable	 
39.	studious	 
40.	successful	 
41.	stubborn	 <del></del>
42.	tactful	 <u> </u>
43.	teachable	 
44.	useful	 
45.	worthy	 
46.	broad-minded	 
47.	businesslike	 
48.	competitive	 
49.	fault-finding	 

# CHARACTERISTICS OF OTHERS CHECK-LIST

Since a high school is made of people who work and study together, our understanding of your school would be more complete if we could have your beliefs about the kinds of people in your school.

**Please** think about the persons whom you feel are your friends. Although your friends **nay** be somewhat different in many ways, try to think of the "average person" among your friends; or think of "your friends in general." Then try to put yourself in the place of this "average friend" and fill out the same two column check-list that you completed for yourself.

TRAITS:		<u>Column I</u>	<u>Column II</u>
		How much of the time do your	How do your "friends
		"friends in general" believe	in general" reel about
		of parson?	respect
			respect.
		1. Seldom	1. Very much dislike
		2. Occasionally	2. Dislike
		3. About half the time	3. Neither like nor dislike
		4. Good deal of the time	4. Like
		5. Most of the time	5. Very much like
1	. acceptable		
2	. accurate		
3	. alert		
4	. ambitious		
5	. annoying		
6	. busy		
7	. calm		
8	. charming		
9	. clever		
10	. competent		
11	. confident		
12	. considerate		
13	. cruel		
14	. democratic		
15	. dependable		
16	. economical		
17	. efficient		
18	. fearful		
19	. friendly		

20.	fashionable	 <u></u>
21.	helpful	 
22.	intellectual	 
23.	kind	 
24.	logical	 
25.	meddlesome	 
26.	merry	 
27.	mature	 
28.	nervous	 
29.	normal	 <del></del>
30.	optimistic	 
31.	poised	 
32.	purposeful	 
33.	reasonable	 
34.	reckless	 
35.	responsible	 
36.	sarcastic	 ·····
37.	sincere	 
38.	stable	 
39.	studious	 
40.	successful	 <del></del>
41.	stubborn	 
42.	tactful	 
43.	teachable	 
44.	useful	 <u></u>
45.	worthy	 
46.	broad-minded	 <del></del>
47.	businesslike	 
48.	competitive	 
49.	fault-finding	 

### HIGH SCHOOL CHARACTERISTICS CHECK-LIST

First, in Column I, describe how your high school appears to be at this time in terms of each of the 16 characteristics. To do so, decide how much of the time each of the characteristics appears to be adequate in your high school. At the top of Column I is a list of five possible responses. Choose the response which best describes how much of the time each characteristic is adequate in your high school.

<u>Second</u>, in Column II, describe how you feel about your high school as it appears to be at this time. To do so, decide how you feel about each of the characteristics which you have described in Column I. At the top of Column II is a list of five possible responses. Choose the one response which best describes how you feel about each characteristic.

Cha	racteristic of the High School	<u>Column I</u> How much of the time <u>do you believe</u> each of the following characteristics of your high school is adequate?	<u>Column II</u> How <u>do you feel</u> about the adequacy of each of the characteristics of your high school?		
		<ol> <li>Seldom</li> <li>Occasionally</li> <li>About half the time</li> <li>Good deal of the time</li> <li>Most of the time</li> </ol>	<ol> <li>Very much dislike</li> <li>Dislike</li> <li>Neither like nor dislike</li> <li>Like</li> <li>Very much like</li> </ol>		
EXA	MPLE: Academic Freedom	4	4		
1.	Homework				
2.	Library services				
3.	Discipline				
4.	Cooperation among teachers				
5.	Quality of instruction				
6.	Teacher-Student relations				
7.	Administrator-Teacher relations				
8.	Counseling and guidance services				
9.	Quality of student body				
10.	Quality of student leadership				
11.	Quality of student organizations				
12.	Cooperation of parents				
13.	Quality of building and facilities				
14.	Academic standing of high school				
15.	Relationships with other high schools				
16.	Relationship with the local community				

This completes your part in the U. S. Office Project 918. The information will be coded on IBM cards and tabulated along with those of nearly 50,000 other students and teachers in the United States. Thank you again for your splendid cooperation.

> Michigan State University Research Staff

# APPENDIX C

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DIRECTIONS FOR SCORING THE INDEX OF ADJUSTMENT

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# Directions for Scoring the Index of Adjustment

# Males:

- If the score for Column II "self" is 172 or more "self" score is +. If under 172 then it is -.
- 2. If score for Column II "others" is equal to or greater score for "self" then "others" score is
  +. If "others" score is less than "self" score then "others" score is -.
- 3. When respondent indicates 1 in both columns of a negative trait, change the response to 1-5.

# Females:

Same procedure as above only use score of 170 as the critical score.

### APPENDIX D

### ROBERT E. BILLS' SELF INSTRUCTION FOR THE INDEX OF ADJUSTMENT AND VALUES

1

### SELF INSTRUCTIONS FOR IAV

There is a need for each of us to know more about ourselves. but seldom do we have an opportunity to look at ourselves as we are or as we would like to be. On the following page is a list of terms that to a certain degree describe people. Take each term separately and apply it to yourself by completing the following sentence:

I AM A (AN) PERSON. The first word in the list is academic, so you would substitute this term in the above sentence. It would read--I am an academic person.

Then decide HOW MUCH OF THE TIME this statement is like you, i.e., is typical or characteristic of you as an individual, and rate yourself on a scale from one to five according to the following key.

- Seldom, is this like me. 1.
- 2.
- Occasionally, this is like me. About half of the time, this is like me. 3.
- 4. A good deal of the time, this is like me.
- Most of the time, this is like me. 5.

Select the number beside the phrase that tells how much of the time the statement is like you and insert it in Column I on the next page.

EXAMPLE: Beside the term ACADEMIC, number two is inserted to indicate that -- occasionally. I am an academic person.

Now go to Column II. Use one of the statements given below to tell HOW YOU FEEL about yourself as described in Column I.

- I very much dislike being as I am in this respect. 1.
- I dislike being as I am in this respect. 2.
- I neither dislike being as I am nor like being as I am 3. in this respect.
- 4. I like being as I am in this respect.
- 5. I like very much being as I am in this respect.

You will select the number beside the statement that tells how you feel about the way you are and insert the number in Column II.

EXAMPLE: In Column II beside the term ACADEMIC, number one is inserted to indicate that I dislike very much being as I am in respect to the term, academic. Note that being as I am always refers to the way you described yourself in Column I.

Finally, go to Column III: using the same term, complete the following sentence:

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I WOULD LIKE TO BE A (AN) \_\_\_\_\_ PERSON. Then decide HOW MUCH OF THE TIME you would like this trait to be characteristic of you and rate yourself on the following five point scale.

- 1. Seldom, would I like this to be me.
- 2. Occasionally, I would like this to be me.
- 3. About half of the time, I would like this to be me.
- <u>A good deal of the time</u>, I would like this to be me. <u>Most of the time</u>, I would like this to be me. 4.
- 5.

You will select the number beside the phrase that tells how much of the time you would like to be this kind of a person and insert the number in Column III.

EXAMPLE: In Column III beside the term ACADEMIC, number five is inserted to indicate that most of the time, I would like to be this kind of person.

Start with the word ACCEPTABLE and fill in Column I, II, and III before going on to the next word. There is no time limit. Be honest with yourself so that your description will be a true measure of how you look at yourself.

### "OTHERS" INSTRUCTIONS FOR IAV

We would like to get a better idea of what you think other people are like. To do this we would like you to first think of other people who are in general like you, for example, other college freshmen, sophomores, juniors, or seniors, other teachers, other administrators, etc. and second to complete the IAV as you think the average person in this group would complete it for himself. Take each of the 49 words and use it to complete the following sentence for the average person in your reference group:

He is a (an) person.

Then decide how much of the time this statement is like this average person, i.e., typical or characteristic of him in general, and rate him as he would rate himself on the following scale?

- Seldom, is this like he sees himself. 1.
- 2. Occasionally, this is the way he sees himself.
- About half of the time, this is the way he sees himself. A good deal of the time, this is the way he sees himself. 3.
- 4.
- 5. Most of the time, this is the way he sees himself.

Select the number beside the phrase that tells how much of the time he sees himself this way and insert it in Column I on the blank.

EXAMPLE: Beside the term ACADEMIC, number two is inserted to indicate that this average person in your reference group sees himself occasionally as an academic person.

Now go to Column II. Use one of the statements given below to tell how he usually feels about himself as described in Column I.

- 1. He very much dislikes being as he is in this respect.
- 2. He dislikes being as he is in this respect.
- 3. He neither dislikes being as he is nor dislikes being as he is in this respect.
- 4. He likes being as he is in this respect.
- 5. He very much likes being as he is in this respect.

Select the number beside the statement that tells how the average person in your group feels about the way he is and insert in Column TT.

EXAMPLE: In Column II beside the term ACADEMIC, number one is inserted to indicate that this person dislikes very much being as he is in respect to the term, academic. Note that being as "he is" always refers to the way he was described in Column I.

Finally, go to Column III. Using the same term, complete the following sentence:

He would like to be a (an) \_\_\_\_\_ person.

Then decide how much of the time this average person in your group would like this trait to be characteristic of him and rate him on the following five point scale:

- 1. <u>Seldom</u>, would he like this to be him.
- 2. Occasionally, he would like this to be him.
- 3. About half of the time, he would like this to be him.
- 4. A good deal of the time, he would like this to be him.
- 5. Most of the time, he would like this to be him.

Select the number beside the phrase that tells how much of the time this average person in your group would like to be this kind of person and insert the number in Column III.

**EXAMPLE:** In Column III beside the term ACADEMIC, number five is inserted to indicate that most of the time this average person in your group would like to be this kind of person.

Start with the word ACCEPTABLE and fill in Columns I, II, and III before going on to the next word. There is no time limit.

		I	II	III			I	II	III
a.	academic				25.	meddlesome			
1.	acceptable				26.	merry			
2.	accurate				27.	mature			
3.	alert				28.	nervous			
4.	ambitious				29.	normal			
5.	annoying				30.	optimistic			
6.	busy				31.	poised			
7.	calm				32.	purposeful			
8.	charming				33.	reasonable			
9.	clever				34.	reckless			
10.	competent				35.	responsible			
11.	confident			·	36.	sarcastic			
12.	considerate				37.	sincere			
13.	cruel				38.	stable			
14.	democratic				39.	studious			
15	dependable				40.	successful			
16.	economical				41.	stubborn			
17.	efficient				42.	tactful			
18.	fearful				43.	teachable			
19.	friendly				44.	useful			
20.	fashionable				45.	worthy			
21.	helpful			<u> </u>	46.	broad-minded			
22.	intellectual				47.	businesslike			
23.	kind				48.	competitive			
24.	logical				49.	fault-finding			





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