A STUDY OF STUDENT PERSONALITY AS A FUNCTION OF OPEN VS. TRADITIONAL SCHOOL PLANS, EDUCATIONAL CLIMATE AND TEACHER PERSONALITY

A Dissertation Presented to 9 the Faculty of the College of Education University of Houston

In Partial Fulfillment Jy of the Requirements for the Degree ? 3

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William R. Pence, Jr.

December 1976

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An Abstract of a Dissertation Presented to the Faculty of the College of Education University of Houston

In Partial Fulfillment of the Requirements for the Degree Doctor of Education

> by William R. Perce, Jr.

> > December 1976

### ABSTRACT

Pence, William R., Jr. "A Study of Student Personality As a Function of Open vs. Traditional School Plans, Educational Climate and Teacher Personality." Unpublished Doctoral Dissertation, University of Houston, December 1976.

Committee Co-chairmen: Dr. Joseph P. Carbonari Dr. Stewart D. North

# Problem

The primary question posed in this study was, "Is student personality impacted by the physical curricular plan, by the teacher perception of educational climate and by the teacher personality?"

#### Procedures

Two hundred eighty-nine randomly selected seventh and eighth grade students from five junior high schools responded to the High School Personality Questionaire to obtain a measure of student personality. Additionally, the faculty members of the schools responded to the Sixteen Personality Factor instrument and the Occupational Climate Description Questionaire to measure teacher personality and perceived school climate. Students were identified with their own teachers enabling correlations to be made regarding student personality traits with an average of the same traits of that student's teachers.

# Statistical Techniques and Findings

First, bivariate correlation techniques were used to assess the relationships of student personality with teacher personality, type of school plan and perceived school climate. The relationship of teacher personality with school plan and school climate, and school plan with school climate were also measured.

In the analysis of student personality with the other three variables significant relationships were found in nine of the fourteen scales of student personality correlated with teacher personality, and in three scales of student personality with school climate. The degree of school plant openness indicated no significant bivariate relationships.

Eight of the sixteen scales of teacher personality were found to be significantly related to the school climate while seven of the same traits were significantly related to the type of school plan. The effects of the degree of openness on the school climate was found to have little measured effect.

In the second phase, canonical correlation and multiple regression analyses of the same variables indicated the same general results, with significance noted in student and teacher personality variable correlations, and additionally in the correlation of student personality with the type of school plan. The correlation between teacher personality and type of school plan was also analyzed as being significant on one set of variables.

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A second order correlation combined the results of these first two phases, indicating that the type of school plan accounted for about twelve per cent of the student personality variance with teacher personality accounting for another fourteen per cent. Because of the correlation between the variables of teacher personality and school plan, together they accounted for nineteen and two-tenths of the variance in student personality.

A general trend in the analyzed data indicated that students seem to relate to teachers with similar traits, and that certain personality traits, both student and teacher, tend to be related to certain types of school plans and certain traits of organizational climate. Conclusions

The basic findings of this study indicate that the type of school plan and teacher personality do account for almost one-fifth (19.2%) of the variance in student personality. The finding that educational climate had very little analyzed effect on student personality may have been a function of the measure used.

#### Recommendations

At least two questions have arisen from the findings of the study. In this light, the following recommendations are considered to be appropriate:

 Further research using multiple measures needs to be conducted in the area of school climate and how it affects student personality in conjunction with school plan and vii

teacher personality.

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 A study of the possibility of teacher personality changing as a function of the school plan might be a line of future research.

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### Chapter I

# Introduction

Within the past generation programs of instruction in the public schools have been characterized by many changes. As demands have arisen for more innovative and flexible programs, and for more flexible facilities to house these programs, the open concept or open plan school has evolved. In recent years schools have been built with large open areas for the purpose of accommodating such flexible programs. While a substantial number of open plan elementary schools and a smaller number of such secondary schools have been built recently, there is relatively little research to assess the advantages of this type of school over the traditional or self-contained classroom-type school.

### Statement of the Problem

The purpose of this research was (1) to assess the educational climate in each of five junior high schools, two of which are housed in "traditional plan" buildings, two in remodeled "modified open plan" buildings and one in a new open plan building, (2) to inscribe the personalities of the teachers and the students in the same schools and (3) to assess the impact on student personality of the physical curricular plant the school is housed in, the teacher perception of the educational climate of the schools and the teacher personality.

#### Need for the Study

Self-contained classrooms have been traditional in American education since the Quincy School was built in Boston in 1847. Even though such arrangements do not allow for the flexibility demanded by new educational programs, by and large they have been and are continuing to be constructed. In the past few years, however, research indicates a discernable trend toward more and more open plan schools. Several studies (Warner, 1969, Wren, 1972, Bell, 1975) describe this trend and indicate that more than 50% of the school plants constructed from 1967 to 1975 were of open design. In spite of this, there has been little research conducted regarding open plan schools, particularly at the secondary school level. Setting for the Study

A brief description of the communities, school systems, faculties and student bodies included in the study is as follows.

The community. The five schools in the study are located in the two adjoining school districts of Cypress-Fairbanks (three schools) and Spring Branch (two schools) on the northwest outskirts of Houston in the Texas Gulf Coast area. The Population of the Spring Branch District in 1975 was approximately 130,000 while that of the Cypress-Fairbanks District was approximately 55,000. With few exceptions the economy of each district is similar, the major difference being that the Cypress-Fairbanks District is more sparcely populated and has a more rural orientation.

Large numbers of people from each district commute and work in downtown Houston in addition to a substantial number of medium to small businesses of various kinds in each district requiring both skilled and unskilled employees. Additionally, since the Cypress-Fairbanks District is over four times as large as the Spring Branch District there are still some rice, dairy, and other general farming activities in this larger district.

The school systems. The Spring Branch District has twentyone elementary schools, eight junior high schools and six senior high schools with a total scholastic population of about 43,000 students. The school population of this district has virtually stabilized at this figure with a less than 1% population growth. The Cypress-Fairbanks District has eight elementary schools, three junior high schools and two high schools with a total scholastic population of about 14,000 students and a steady annual growth rate of about ten to twelve percent per year.

<u>The schools</u>. The two Spring Branch schools are both housed in "traditional plan" school plants with no large open teaching areas and student populations of approximately 1,200 students each in grades six, seven and eight. These students come from a wide range of socio-economic backgrounds. The three schools from the Cypress-Fairbanks District operate in school plants ranging from one in which the students spend four or more periods daily in an open space environment to the other two where the typical student

spends at least two periods in such a setting. These three schools range in size from 600 to about 1,300 with the students coming from a wide range of socio-economic backgrounds.

The faculties. Permission to conduct the study was obtained from the superintendents of the two districts and the principals of the involved schools. Prior to gathering the data the faculty members were informed of the study by a letter. As a whole, the faculties expressed an interest in the study and were cooperative in supplying data for the study. Many expressed an interest in seeing the results of the study after its completion.

The student bodies. The student bodies from the Spring Branch schools are comprised of approximately 99% Caucasian and 1% minority races while the Cypress-Fairbanks student bodies are composed of about 92% Caucasian and 8% minority races. One school from each district draws students from an upper socio-economic strata with the students living in single family residences averaging approximately \$70,000 - 75,000 with approximately 80-90% of the heads of household being college graduates and employed in a professional or managerial-type profession. Also one school from each district iraws students from a middle socio-economic strata with the students for the most part residing in single family residences in the \$28,000-30,000 range with some 35% of the students from this Spring Branch school living in apartments. Approximately 15-20% of the parents of these students are college graduates with some 20-25%

of the heads of household employed in professional or managerialtype occupations. The third Cypress-Fairbanks school draws its students from a strata somewhere between the first two groups, both in proce range of residences occupied and the occupational background of the parents.

#### Method

<u>Subjects</u>. The study was limited to two hundred eighty-eight (288) seventh and eighth grade students enrolled in the five junior high schools in the study and to one hundred seventy-one (171) teachers from the faculties of the same five schools, excluding only those teachers who had not been teaching at his or her school for the entire school year 1974-75. The students participating in the study were selected from the entire grade level by use of random numbers.

Instruments. Three different instruments were used for assessment in the study. They were the High School Personality Questionaire (HSPQ), the Sixteen Personality Factor Questionaire (16PF) and the Organizational Climate Description Questionaire (CCDQ).

The High School Personality Questionaire was administered to the selected students under the supervision of the Guidance Department of each school and in accordance with standardized instructions.

The remaining two instruments, the Sixteen PF and the Organizational Climate Description Questionaire, were administered under

the supervision of the researcher to the faculty members of each school in accordance with standardized instructions.

<u>Treatment of the data</u>. The Organizational Climate Description Questionaire was scored according to the factor structure developed by Halpin and Croft and profiles of each school were built for each of the five schools in the study. The profiles of each school were compared to the prototypic profiles produced by Halpin and Croft so that a proper labeling could be given each school regarding its educational climate.

The analysis technique used on the data from the other instruments is called Multiple Discriminant Analysis. This technique is used when there are a number of scores (personality factors) on one set of subjects (students and teachers) with these subjects coming from different groups or populations (schools). The question answered by this analysis is whether or not there is something in the set of scores that could be used to separate the subjects and identify them with their proper group. If this can be done from a given set of scores, it can be stated that there are differences in those scores that are related to group membership. Conversely, if this cannot be done, then a conclusion may be reached that there are no identifiable differences among the groups reflected in the scores.

The analysis of the data in this study was run on an 1108 Model Univac Computer using the program developed in the Biomed Fackage.

Limitations of the study. The study is subject to the limitations of the instruments used. The relationships and conclusions are limited to the individuals in the sample and no attempt was made to generalize to other populations.

#### Definition of Terms

Since terms were used which could have varied interpretations the following definitions were given in order to clarify their usage in this study.

<u>Open plan school</u> refers to a school housed in an open area physical plant where students spend more than 50% of their school day (at least four of seven class periods) in a large open instructional area under the supervision of a team of teachers.

Modified open plan school refers to a school housed in a traditional building that has been remodeled and added on to in order to add open space facilities, and where students spend at least two periods per day in an open space classroom facility under the supervision of a team of teachers.

<u>Traditional school</u> refers to a school housed in a physical plant consisting primarily of self-contained classrooms where all students are assigned to individual teachers meeting in such classrooms each period unless special large group meetings are scheduled for occasional activities.

### Chapter II

# Review of the Literature

The purpose of this chapter is to review the professional literature regarding schools with open concept settings and the possible effects organizational climate and teacher personality in such school might have on student personality as contrasted to the "traditional" plan school. Additional areas reviewed were student achievement and student and teacher attitudes as affected by different school plan settings.

### Organizational Climate

Several studies involving organizational climate of schools (Warner, 1972; Jaworowicz, 1972; Leroy, 1973; McKee, 1975) reported no significant differences in organizational climate between open space and traditional schools.

Redmond's study (1975) involving firth grade teachers from sixteen elementary schools found no significant relationships between the openness of the school climate and positive attitudes of teachers for their pupils.

In a study of the organizational climate of both elementary and secondary schools in Pittsburgh in 1971 (Fascetti, 1971), the OCDQ was used and the results analyzed to ascertain whether school size or personal variables of the principal ware related to the organizational climate of the schools. While no conclusions were reached regarding these two points, this analysis of the data led to the conclusion

that while there was no significant relationship between school size and educational climate, the nature of the elementary school organization tends toward a better working relationship and higher morale on the part of the staff than in the secondary schools. The study indicated that the less desirable behavior characteristics of the principal and staff, mainly attitudes, increased as the size of the school increased while the more desirable attitudinal traits tended to decrease.

#### Student and Teacher Personality

According to an elementary school study in Texas, (LaForge, 1972) the open space design of a school building did not significantly affect students when the total personality of the individual is considered. However, he did note that the students from the open space schools were more sensitive and "tender-minded" to the needs of others than the students from traditional plan schools.

A study of the effects of an open versus a traditional educational plan upon selected personality and achievement variables of elementary school children (Trotta, 1973) reported that there was a significant increase in the amount of internal control and responsibility from students in grades three through five from open plan schools.

Carbonari's study (1971) of five elementary schools in Houston in 1971 gives support to the hypothesis that school climate or environment does influence the personalities of the children within them. His study indicated that when significant differences in

personality characteristics exist between students, these students can be identified as being from certain schools with statistical significance. The study also indicated there were significant differences in the overall profiles of the teachers in the five schools and that they could be placed in their respective schools from these profiles with statistical significance.

### Student Achievement

Research in the area of student achievement is inconclusive as to whether students achieve better in the open concept setting or in a traditional setting. However, other comparative studies of open concept and traditional educational settings indicate measurable differences in other areas between the two types of educational settings that affect the learning situation. This is well expressed by Brunetti (1971) in his "Open Spaces: A Status Report":

"It is unlikely that the school building itself has any direct measurable effect on whether children learn to read better or teachers are more inspiring; rather, it will permit or restrict certain functions that may or may not be related to performance measures. If functions related to performance have not changed - if there is no change in staff organization and relations, no change in program planning and coordination, no change in curriculum, no change in student-teacher relations, no change in instructional strategies - the residual effect of space upon student and teacher performance will very likely be small......"

### Regarding student performance, Brunetti (1971) also says:

"There have been no consistent differences in academic achievement in open-space and conventional schools as measured by standardized achievement tests. There are examples of reading or math scores to show higher learning rates in either open or conventional schools in the same school district, but there has been no control for such general factors as socioeconomic status or I.Q., let alone those variables that would isolate space as a strong determinant.

Most educators feel that standardized achievement tests are too narrow in scope to measure many of the alternative learning goals of the open-space school. As long as academic achievement is not adversely affected, the improvement of such factors as motivation, self-direction, self-concept, self-responsibility, inquiry skills and peer relations are seen to be equally important in rounding out a student's achievement "profile". Improvement in these areas, which often necessitates the development of completely new learning skills, will very likely result in long-term improvement in academic achievement ....."

Nearly three hundred open class and traditional class students from grades three, four, and five were involved in a 1973 study. This study (Trotta, 1973) found that open class students scored significantly higher in arithmetic achievement while traditional class students displayed more internal control and responsibility for achievement. On the other hand, no significant differences were noted on measures of reading achievement and autonomy, although trends existed in favor of traditional class students.

A study from Virginia (Bowman, 1975) involving 738 fourth, fifth and sixth graders from six schools indicated that there was no significant relationship between openness of the school and the academic achievement.

From these studies no conclusive recommendations could be formulated regarding possible advantages of the open space schools over the traditional ones.

### Attitudes in Open Space Schools

While most studies of the impact of school plan on attitudes in-

volved both students and teachers, some of the studies were more concerned with one group more than the other.

Student Attitudes. Fifth grade pupil and teacher attitudes and opinions in open innovative and traditional schools in Florida during 1970-71 were contrasted in a research study (Ft. Lauderdale, 1971). Most significant findings of the study were that the overwhelming majority of the teachers rejected the idea of a return to conventional school plants and teaching methods, and that greater acceptance and implementation of individualized approaches to instruction in the open space schools was indicated.

Studies at the fourth and fifth grade level (Reid, 1972) in the Vancouver, British Columbia Public Schools in 1971-72 indicated the pupils in the open space schools as possessing higher selfesteem and as having a more positive attitude toward learning than did the children in traditional classroom settings. Another study of sixth and seventh grade students in a Nebraska junior high school (Olson, 1973) involved groups of students who had completed either open concept or traditional elementary schools. The study again indicated no significant differences in the academic achievement between the two groups although the boys from the self-contained elementary schools did score higher academic grades and did appear to have more positive attitudes than those from the open concept schools. Although the boys from the open concept schools did appear to make the greatest gains in attitude during the first year in junior high school it was the conclusion of the study that the open concept elementary school

did not appear to meet the needs of the boys as well as it did those of the girls.

In an Indiana high school study (Jolley, 1974) students from open space high schools were found to have significantly more positive attitudes toward teachers' exercise of authority and control, and toward learning than students from traditional schools. On the other hand, teachers in traditional schools were found to have observably more positive attitudes toward rapport with their peers, teacher loads, community support of education and school facilities and services than the teachers in the open-space schools. No significant differences were observed on some seven other factors, notable of which were teachers' attitudes toward satisfaction with teaching and toward curriculum issues, and students' attitudes toward teachers' modes of instruction and teachers' interpersonal relationship with students. The results of this study led the author to cast some doubt on the value of moving from the traditional school to the open space school if such a move has as one of its primary goals the improvement of the attitudes of the students and the teachers.

Sixth grade students, their teachers and a sampling of their parents from eight schools (four conventional and four open plan) in a large suburban school system near Washington, D.C. provided data for a comparative study (Stowers, 1974) of different educational settings and plans. Findings of this study indicated that students in conventional plan schools scored higher on tests of ability, scored higher on measures of achievement in mathematics, and reported greater feelings

of self-responsibility toward negative events. Boys in the conventional plan schools reported more positive attitudes toward school and their teachers than did boys in open plan schools while girls in the open-plan schools displayed more positive attitudes toward learning and social structure than did girls in the conventional schools. There were no significant differences between teachers' perceptions of open space education within both school designs, as well as no significant differences in parents' attitudes toward open space education practices. In open space schools, teachers' responses toward open education were more positive than those of the parents.

Stowers studies of student, teacher and parent attitudes in open plan versus architecturally conventional elementary schools (Stowers, 1974) showed no consistent differences in attitudes between the two types of schools. The study indicated that boys in conventional schools evidenced more positive attitudes toward their teachers and their peers than did boys in the open plan schools, and that girls in the open plan schools reported more positive attitudes toward learning and school social structure than did girls in conventional plan schools.

Teacher Attitudes. A fifth grade study (Singh, 1974) investigating certain behavioral and attitudional variables indicated that children from open classroom settings exhibited significantly greater internal locus of control. Additionally, the teachers from both the open and the traditional class settings seemed to show a preference for the student exhibiting the internal control characteristics. These high internal control students also felt that their teachers chose

them in a positive manner to a highly significant degree.

Conclusions from a Stanford Center for Research and Development in Teaching study (Neyer, 1971) and from Brunetti's study (1970) regarding teacher opinions and attitudes in the open concept school were (1) that teachers were more satisfied with their jobs in the open area setting, (2) that they felt more autonomous in this setting, and (3) that they reported more influence in decision making regarding the curriculum program than did those teachers in a traditional classroom setting.

Some of the results of a questionaire submitted to over two hundred and fifty teachers and principals from eleven open-space elementary schools in Broward County, Florida in 1970 (Kaelin, 1970) indicated (1) that teacher reaction and attitudes toward working in teams in open concept schools is highly positive and (2) that attitudional changes that occurred over the course of the school year were all in a positive direction.

#### Chapter III

### Methods and Procedures

In this chapter the subjects of the study are identified, the instruments administered in the study are described, methods and procedures employed are discussed and the statistical techniques employed in the analysis of the data are explained.

# Subjects of the Study

Seventh and eighth grade students from five (5) junior high schools were selected to participate in the study in order to have students who had been away from the influence of the elementary school setting for more than a year. The entire teaching faculties of the same five schools also participated in the study with those teachers excluded who had been added to the teaching staff since the beginning of the school year.

As a part of the selection process, students were excluded who were not enrolled in the school the previous year, thereby assuring at least the full year's exposure to the school climate and the teaching staff. The data were gathered in mid-May 1975.

The sample for the study consisted of two hundred eighty-eight (288) seventh and eighth grade students from the five junior high schools in two adjoining school districts, and the faculty members from the same schools. The students were selected from student lists by use of random number tables with students deleted from

the list who were not enrolled in the school the previous year. Approximately fifteen percent of the faculty of each school did not respond; however, there were enough responses to assure that at least four of the teachers assigned to each student in the study did respond. Each teacher instrument was numbered, thereby allowing the researcher to identify which students in the study were taught by which teachers.

# Instruments Used in the Study

To gather the desired data for the study, the Organizational Climate Description Questionaire (OCDQ) and the Sixteen PF were administered to the faculty members, and the High School Personality Questionaire (HSPQ) was administered to the students.

<u>Organizational Climate Description Questionaire (OCDQ)</u>. One dimension of this study is related to the climate of the school setting as perceived by the teaching staff. Halpin and Croft, in their work on organizational climate, developed a theory that divides organizational climates in schools into six identifiable types. These six are arrayed on a continuum defined at one pole as an Open climate and at the other extreme as a Closed climate. Next to the Open climate on the continuum would be the Autonomous climate followed by the Controlled climate. Next in order would be the Familar climate with the Faternal climate listed just before the Closed climate. Halpin and Croft developed the instrument entitled the Occupational Climate Description Questionaire (OCDQ) in order to measure the

educational climate of a school as perceived by the staff. This instrument provides scores for the school climate being measured on eight dimensions as follows: disengagement, hindrance, esprit intimacy, aloofness, production emphasis, thrust and consideration. The first four of these, disengagement, hindrance, esprit, and intimacy refer to teacher behavior within the school structure. The second four factors, aloofness, production emphasis, thrust, and consideration, refer to the principal's behavior within the school. Below are short paragraphs taken from the Halpin book, <u>Theory and Research in Administration</u>, which describes each of the eight dimensions.

Teachers' Behavior:

- 1. Disengagement refers to the teachers' tendency to be "not with it." This dimension describes a group which is "going through the motions," a group that is "not in gear" with respect to the task at hand. In short, this subtest focuses upon the teachers' behavior in a task-oriented situation.
- 2. Mindrance refers to the teachers' feelings that the principal burdens them with routine duties, committee demands, and other requirements which the teachers construe as unnecessary "busy-work." The teachers perceive that the principal is hindering rather than facilitating their work.
- 3. Esprit refers to morale. The teachers feel that their social needs are being satisfied, and that they are, at the same time, enjoying a sense of accomplishment in their job.
- 4. Intimacy refers to the teachers' enjoyment of friendly social relations with each other. This dimension de-

scribes a social-needs satisfaction which is not necessarily associated with task accomplishment.

# Principal's Behavior:

- 5. Aloofness refers to behavior by the principal which is characterized as formal and impersonal. He "goes by the book" and prefers to be guided by rules and policies rather than to deal with the teachers in an informal face-to-face situation. His behavior, in brief, is universalistic rather than particularistic; nomothetic rather than idiosyncratic. To maintain this style, he keeps himself - at least, "emotionally" at a distance from his staff.
- 6. Production Emphasis refers to behavior by the principal which is characterized by close supervision of the staff. He is highly directive and plays the role of a "straw boss." His communication tends to go in only one direction, and he is not sensitive to feedback from the staff.
- 7. Thrust refers to behavior by the principal which is characterized by his evident effort in trying to "move the organization." Thrust behavior is marked not by close supervision, but by the principal's attempt to motivate the teachers through the example which he personally sets. Apparently, because he does not ask the teachers to give of themselves any more than he willingly gives of himself, his behavior, though starkly taskoriented, is nonetheless viewed favorably by the teachers.
- 8. Consideration refers to behavior by the principal which is characterized by an inclination to treat the teachers "humanly", to try to do a little something extra for them in human terms.

The Sixteen PF. A second dimension of the study to be assessed was concerned with the personalities of the teachers within the five schools. The instrument chosen that might best meet the needs of this study was the Sixteen PF (Personality Factors). It is a widely known and used instrument of proven reliability and validity developed by the Institute of Personality and Ability Testing. This instrument purports to measure personality development of adults by identifying sixteen relatively independent factors or dimensions of personality development. Each of the sixteen factors is identified in bi-polar terms with scores on each factor noted by a standard ten (STEN) score. Therefore, a low score does not indicate a lack of some attribute but merely the degree of proximity to two differing characteristics located at opposing poles. This in effect gives measures on the thirty-two attributes from the two poles of each of sixteen factors. However, since one cannot score high on both ends of a factor the scores must be treated as sixteen independent scores. The sixteen factors measured as indicated by their polar terms are:

Factor A	A	Reserved (Detached,	vs.	Outgoing (Warmhearted,
		Critical, Aloof)		Easy-going)
Factor H	В	Less Intelligent	vs.	More Intelligent
		(Concrete thinking)		(Abstract thinking)
Factor (	2	Affected by Feelings	vs.	Emotionally Stable
		(Easily upset, change- able)		(Mature, faces reality, calm)
Factor F	Ε	Humble (Mild, easily	vs.	Assertive (Aggressive,
		led, docile)		stubborn, competitive)
Factor 1	F	Sober (Taciturn,	vs.	Happy-go-Lucky
		serious)		(Enthusiastic)
Factor (	G	Expedient (Disregards	vs.	Conscientious (Persis-
		rules)		tent, moralistic, staid)
Factor H	H	Shy (Timid, threat-	vs.	Venturesome (Uninhibited,
		sensitive)		socially bold)

Factor	I	Tough-minded (self- reliant, realistic)	VS.	Tender-minded (sensi- tive, clinging, over- protected)
Factor	L	Trusting (Accepting conditions)	vs.	Suspicious (Hard to fool)
Factor	М	Practical ("Down-to- earth" concerns)	vs.	Imaginative (Bohemian, absent-minded)
Factor	N	Forthright (Unpreten- tious, genuine but socially clumsy)	VS.	Astute (Polished, socially aware)
Factor	0	Self-assured (Placid, secure, complacent, serene)	VS.	Apprehensive (Self- reproaching, in- secure, worrying, troubled)
Factor	Q <sub>1</sub>	Conservative (Respect- ing traditional ideas)	vs.	Experimenting (Liberal, free-thinking)
Factor	<sup>Q</sup> 2	Group-dependent (A joiner and a sound fol- lower)	VS.	Self-sufficient (Resourceful, prefers own decisions)
Factor	Q3	Undisciplined, Self-con- flict (Lax, follows own urges, careless of so- cial rules)	-VS.	Controlled (Exacting will power, socially precise, compulsive)
Factor	Q <sub>4</sub>	Relaxed (Tranquil, un- frustrated, composed)	vs.	Tense (Frustrated, driven, overwrought)

# The High School Personality Questionnaire (HSPQ). As the Six-

teen PF was concerned with assessing the personality traits of the faculty members in the study, the HSPQ was similarly employed in assessing the personalities of the students in the study. The HSPQ is the student version (ages 12-17) of the 16 PF except that it attempts to identify fourteen rather than sixteen relatively independent factors or dimensions of personality, all similar to those of the 16 PF. Again as with the 16 PF each factor is identified in bipolar terms and assessed as a STEN score. In addition to the normal

responses on the instrument each student also identified his teachers and the researcher was able to analyze the identifiable student personality traits in relation to those traits of each student's teachers.

### Procedures

<u>Data Compiling</u>. The HSPQ was administered to the students in each junior high school by the researcher in either the school cafeteria or a teaching theater. Since the students were all selected randomly from the entire seventh and eighth grades in each school there were no common classes which all or even one grade level attended. Regarding the testing situation each district has an extensive standardized testing program and the students completed this instrument under the same conditions they were accustomed to in similar testing situations. The actual purpose of the instrument was not explained to the students. They were told only that it was a part of a research project in which the school district was participating.

Answer sheets were distributed to the students with the only instructions being that they fill in school name, grade level and the names of their teachers. Students were not identified by name. Test booklets were then distributed and the students instructed to read and follow directions carefully. The only special instruction

given was that there was no one correct answer on each question -that the answer depended on the student and his or her point of view. Since the instructions are simple and straight-forward and the instrument is designed to be self-administered, no further instructions were given. Immediately following the completion of the tests they were collected and scored.

The faculty members in each school were sent a letter explaining the purpose of the research and the instruments to be completed. They were allowed to complete the instruments on their own and return to the researcher in a sealed envelope. Only those faculty members who had been at the school for the entire year were asked to participate in the study, and approximately 85% of all the faculty members asked to participate completed and returned the instruments.

Each of the five schools in the study was classified according to its physical plant lay-out as being an open plan school (children attending classes in an open plan teaching area for four or more periods in a seven period day), a modified open plan school (children attending classes in an open plan teaching area for two to four periods in a seven period day) or a traditional plan school (children attending classes in self-contained classrooms with no open plan teaching areas other than an auditorium).

Organizing the Data. After all the instruments were scored the raw scores on the 16 PF and the HSPQ were converted to STEN scores according to the instructions from the test publishers. The students' scores on the HSPQ were then key punched into one set of cards. In addition to these scores the teacher indentification numbers of each student's teachers were punched into that student's card also. The teachers' scores on both the 16 PF and the OCDQ were punched into a second deck of cards. A secondary computer program was written which searched out the scores on the 16 PF of all the teachers of each student, averaged the scores of Factor A, then those of Factor B and sc on until there were sixteen such average scores from the teacher data for each student. These scores represented the average of each of the 16 PF factors for each students' teachers, or in essence, an average personality profile of the teachers of each student. The end product of this program was a deck or cards each containing (1) the individual students' scores on the HSPQ, (2) the average personality score of all his or her teachers on the 16 PF and (3) the average scores on the OCDQ of all the teachers in the building where the student was enrolled.

Data Analysis. In the analysis of the data as compiled above, four different variables are noted. The following is a brief

explanation of these variables and the factors making them up.

Variable #1 - School concept (degree of openness in the school plant)

a. Open plan - one school
b. Modified-open plan - two schools
c. Traditional plan - two schools

Variable #2 - Teacher personality (as measured by the 16 PF on sixteen different factors)
Variable #3 - Student personality (as measured by the

HSPQ on fourteen different factors)

Variable #4 - School climate (as measured by the OCDQ on eight different factors)

The following is a diagram of the model used to analyze the results of the data compiled in this study. It is hypothesized as an explanation of the effect of schools on student personalities.

#### FULL PATH ANALYTIC MODEL



### Chapter IV

### Results

This chapter will review the statistical techniques employed and present the findings from the analysis of the data.

The statistical nature of the study involved canonical correlation and regression analysis techniques, depending on the nature of the data, and its primary thrust was an investigation of relationships.

The broad overall analysis within the study is described in four steps as follows:

- 1. The interrelationship of individual variables to each other
- 2. The variance in HSPQ (student personality) accounted for by the global variables (16 PF, OCDQ, School Plan), as well as the isolation of important contributors within each global variable to the prediction of that variance
- 3. Path analysis model of data
- 4. Overall effect of individual variables on personality

## Interrelationships of Individual Variables

Effect of Teacher Personality (16 PF) on Student Personality (HSPQ)

This analysis was concerned with noting the possible effect of the average measured teacher personality score on measured student personality. The teacher personality score used was arrived at by averaging the 16 FF scores of each student's teachers.

It should be noted that each of the descriptors from both the
HSPQ and the 16 PF are bi-polar, indicating an opposing set of personality traits within each variable. In the case of all variables, those traits listed first such as "Characteristic of being reserved, detached, critical, aloof" from HSPQ Variable #1 listed in succeeding paragraphs are on the low end of the numerical scale while the remaining traits listed in the same statement are represented on the high end of the scale.

When each of the HSPQ variables were correlated against the 16 PF variables and a positive correlation coefficient resulted, this was an indication of a relationship between those student traits listed first with corresponding teacher traits also listed first, or a relationship between student traits listed second with teacher traits listed second. For example, analysis of HSPQ Variable #1 in the data following would indicate that students with those characteristics of being reserved, detached, critical and/or aloof would tend to relate to teachers perceived to be less intelligent, concrete thinking (16 PF Variable B), sober, taciturn, serious (Variable F), and shy, timid, threat-sensitive (Variable H). Also from the same set of variables analysis indicates that students who are warm-hearted, out-going, easy-going, participating (second half of HSPQ Variable #1) would tend to relate to teachers characterized to be more intelligent, abstract thinking (16 PF Var-

iable B), happy-go-lucky, enthusiastic (Variable F) and venturesome, socially bold, uninhibited (Variable H). A negative correlation coefficient would be indicative of student traits from the low side of the scale correlating with or relating to teacher traits from the high side of the scale or vice versa. In this analysis all correlations were found to be positive in nature.

Listed below as different variables are the fourteen descriptors of student personality from the HSPQ. The 16 PF descriptors of teacher personality noted as having the greatest effect on the HSPQ variables are listed beside them in order of importance. The ' correlation coefficient (r) indicating the extent of the analyzed relationship is listed following each variable. With an "r" = .14 or greater, the correlation is significant at the .01 level.

#### HSPQ Variables

cipating.

Variable 1 - Characteristic of

being reserved, detached, crit-

ical, aloof vs. warm-hearted,

out-going, easy-going, parti-

#### Related Variables from the 16 PF

Variable B - Less intelligent, concrete thinking vs. more intelligent, abstract thinking. (r = .192)

Variable F - Sober, taciturn, serious vs. happy-go-lucky, enthusiastic. (r = .190)

Variable H - Shy, timid, threatsensitive vs. venturesome, socially bold, uninhibited. (r = .175)

Variable 2 - Characteristic of being dull, concrete-thinking vs. bright, abstract thinking.
Variable C - Affected by feelings, emotionally less stable, changeable vs. emotionally stable, mature, faces reality. (r = .197)

Variable 3 - Characteristic of being emotionally less stable vs. mature, emotionally stable, faces reality.

Variable 4 - Measure of how undemonstrative, deliberate, inactive one is vs. being excitable, impatient, demanding, overactive.

Variable 5 - Characteristic of being obedient, mild, easily led, docile vs. assertive, aggressive, competitive, stubborn.

Variable 6 - Perceived as being sober, taciturn, serious vs. enthusiastic, heedless, happygo-lucky.

Variable 7 - Traits of disregard for rules, expedient vs. conscientious, persistent, staid, moralistic. Variable H - Shy, timid, threatsensitive vs. venturesome, socially bold, uninhibited. (r = .189)

Variable B - Less intelligent, concrete thinking vs. more intelligent, abstract thinking. (r = .165)

Variable Q<sub>3</sub> - Undisciplined, selfconflict, lax, careless of social rules vs. controlled, exacting will power, socially precise. (r = .167)

Variable C - Affected by feelings, emotionally less stable, changeable, vs. emotionally stable, mature, faces reality. (r = .156)

No particular relationship was noted between this characteristic and any of those measured in the study of teacher personality.

Variable H - Shy, timid, threatsensitive vs. venturesome socially bold, uninhibited. (r = .183)

Variable Q<sub>3</sub> - Undisciplined, selfconflict, lax, careless of social rules vs. controlled, exacting will power, socially precise. (r = .180)

Variable M - Characteristic of being practical, "down-to-earth" vs. imaginative, absent-minded, bohemian. (r = .162)

Variable B - Less intelligent, concrete thinking vs. more intelligent, abstract thinking. (r = .185) Variable 8 - Characteristic of Variable H - Shy, timid, threatshy, timid, threat-sensitive sensitive vs. venturesome, socialvs. adventurous, thick-skinned, ly bold, uninhibited. (r = .145)socially bold. Variable F - Sober, taciturn, ser-Variable 9 - Traits of being toughminded, rejecting illusions vs. ious vs. happy-go-lucky, enthusiastic. tender-minded, sensitive, cling-(r = .164)ing, over-protected. Variable I - Tough-minded, selfreliant, realistic vs. tender minded, sensitive, clinging, over protected. (r = .159)Variable H - Shy, timid, threatsensitive vs. venturesome, socially bold, uninhibited. (r = .147)No particular relationship noted re-Variable 10 - Characteristic of being zestful, liking group garding this variable. action vs. circumspect individualism, guarded, internally restrained. Variable 11 - Percèived as self-No particular relationship noted reassured, placid, serene, comgarding this variable. placent vs. apprehensive, insecure, worrying, troubled. Variable 12 - Perceived as sociably No particular relationship noted group-dependent, a "joiner" and regarding this variable. sound follower vs. self-sufficient, resourceful, prefers own decisions. Variable 13 - Characteristic of be-Variable B - Less intelligent, coning uncontrolled, lax, following crete thinking vs. more intelligent own urges vs. controlled, socialabstract thinking. (r = .177) ly precise, exacting will power. Variable H - Shy, timid, threatsensitive vs. venturesome, socially bold, uninhibited. (r = .171)Variable C - Affected by feelings, emotionally less stable, changeable vs. emotionally stable, mature, faces reality. (r = .170)

Variable E - Humble, mild, easily led, docile vs. assertive, aggressive, stubborn, competitive. (r = .157)

Variable Q - Undisciplined, selfconflict, fax, careless of social rules vs. controlled, exacting will power, socially precise. (r = .157)

Variable 14 - Traits of being relaxed, tranquil, turpid, unfrustrated vs. tense, driven, overwrought, fretful. No particular relationship noted regarding this variable.

Effect of the Degree of Openness of School Plan on Individual Student Personality Variables. In the bivariate case of contrasting open plan schools to closed plan schools in one sense and contrastirg open plan schools to modified open plan schools and relating this contrast to student personality variables, no significant bivariate correlations were found.

Analysis of the Educational Climate (OCDQ). Before any correlation of data involving the educational climate is undertaken, it might be well to look at the educational climate in the five schools as perceived by the teachers in the study. The analysis of the OCDQ data indicated that the five schools in the study had similar profiles but exhibited somewhat interesting differences. Using a standardized form of scores on each of the factors, a mean of fifty and a standard deviation of ten, Table 2 gives an overview of the scores

	Variables	1	2	3	ц	5	6	7	8	9	10	11	12	13	14
п)	А			• • • • • • • • • • • • • • • • • • • •		<u></u>									
atio	В	.192		.165				.185						.177	
lana	с		.197		.156									.179	
exp	E													.157	
for	F	.190								.164					
20	G														
e p	н	.175	.189				.183		.145	.147				.171	
(se	I									.159					
oles	L														
rial	М						.162								
F Va	N														
en Pl	о														
ixtee	Ql														
S	Q <sub>2</sub>														
	۹ <sub>3</sub>				.167		.180							.157	
	Q <sub>4</sub>	<del></del>								**					

Table 1 - Convertation of Student Personality (HSPQ) with Teacher Personality (16PF) HSPQ Variables (see p. 28 for description)

TUDUU Y	ΤA	В	L	E		2
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Factor	(Open Plan) School 2	(Modified School 1	Open Plan) School 3	(Tradition School 4	al Plan) School 5
* DIS	60	65	66	60	66
券 HIN	37	39	47	դդ	42
ESP	40	37	37	33	43
INT	50	54	54	51	66
* ALO	47	48	48	61	48
* PRO	71	65	63	62	54
THR	47	43	36	43	44
CON	49	49	48	45	39

OCDQ Standardized Factor Scores By Factor and School

\* Lower scores on these factors are generally considered to be indicators of a desirable educational climate. Conversely, higher scores on the other four factors are also general indicators of a more desirable educational climate.

ТΑ	B	ĽΕ	3
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Best Fitting Climate for Each School

School	and Type Plan	Climate
School 1	(Modified Open)	Closed
School 2	(Open)	Paternal
School 3	(Modified Open)	Closed
Scheol 4	(Traditional)	Closed
School 5	(Traditional)	Closed

on each of the dimensions by school and the best fitting climate as defined by Halpin and Croft, the authors of the OCDQ.

According to the authors of the instrument, low scores on the first two factors, Disengagement and Hindrance, and the fifth and sixth factors, Aloofness and Production Emphasis, are general indications of a desirable educational climate. Also, higher scores on the remaining factors, Esprit, Intimacy, Thrust and Consideration would generally indicate teacher perception of a favorable educational climate.

Rank ordering of the scores of the five schools on each of the eight factors allows one to see which schools are perceived by the teachers in those schools to have the most favorable climates as compared to the other schools in the study. The three schools classified as open or modified open plan schools are ranked first or second on the desirable end of the scale of the OCDQ traits fifteen times while the traditional plan schools ranked first or second six times. (It must be remembered that on four of the traits low scores indicate more desirable educational climate while high scores on the other four factors indicate a more desirable climate.) In some cases there were ties for first or second place in the ranking of a desirable climate.

With this analysis of the OCDQ in mind, the data from each of

the eight factors on the OCDQ were correlated with the other factors of the study: student personality (HSPQO, teacher personality (16 PF) and the degree of openness of the school plant.

Effect of the School Climate (OCDQ) on Student Personality (HSPQ). The fourteen variables of student personality were again analyzed as being bi-polar in nature with those personality traits listed first in the description being assigned a low numerical value and those listed second as having a higher assigned value. The eight variables of the OCDQ are also generally considered to be bi-polar in nature with the first four of these variables referring to teacher behavior. For the first two of these four variables, disengagement and hindrance, a low score is usually considered to be desirable while a higher score on the third and fourth variable, esprit and intimacy, are usually indicative of a more desirable educational climate. The second four variables refer to the principals' behavior in the school and his perceived effect on the occupational climate. A low score on the fifth and sixth variables, aloofness and production emphasis, and higher scores on the seventh and eighth variables, thrust and consideration, are usually indicative of a favorable school climate.

A positive correlation coefficient produced from the analysis indicates a relationship between a high score on an OCDQ variable with the second half of a set of variables from the HSPQ. For example, from Variable 2 below the characteristics of "bright, abstract-

thinking" (HSPQ) correlates with "Esprit" (OCDQ) to produce a positive correlation coefficient (.298). Had a negative coefficient resulted this would have indicated that the characteristic of "being dull, concrete-thinking" correlated with "Esprit" to produce it.

The school climate variables and corresponding correlation coefficients perceived as affecting student personality are listed in rank order with the student personality variables as follows:

HSPQ Variables

#### OCDQ Variables

Variable 1 - Characteristic of being reserved, detached, critical, aloof vs. warm- hearted, out-going, easy-going, participating.

Variable 2 - Characteristic of being dull, concrete-thinking vs. bright, abstract-thinking. Esprit - teacher morale. Teachers feel their social needs are being met and that they are enjoying a sense of accomplishment. (r = .298)

No OCDQ variable noted as having

any effect on student personality.

Thrust - perceived behavior of the principal as he attempts to motivate teachers, principally by the example he personally sets. Somewhat task-oriented but still viewed favorably by teachers. (r = .251)

Intimacy - refers to teachers' enjoyment of friendly social relations with each other. A social needs satisfaction not necessarily associated with task accomplishment. (r = .236)

Production Emphasis - perceived behavior by principal characterized by close supervision of staff. Highly directive in nature, communication tends to go in only one direction and is not sensitive to staff feedback. (r = -.202) Variable 3 - Characteristic of No OCDQ variable noted as having any being emotionally less stable effect on student personality. vs. mature, emotionally stable, faces reality. Variable 4 - Measure of how un-No OCDQ variable noted as having any demonstrative, deliberate, ineffect on student personality. active one is vs. being excitable, impatient, demanding, overactive. Variable 5 - Characteristic of No effect noted. being obedient, mild, easily led, docile vs. assertive, aggressive, competitive, stubborn. Variable 6 - Perceived as being No effect noted. sober, taciturn, serious.vs. enthusiastic, heedless, happy-golucky. Variable 7 - Traits of disregard Esprit - teacher morale. Teachers for rules, expedient vs. confeel their social needs are being scientious, persistent, staid, met and that they are enjoying a moralistic. sense of accomplishment. (r = .213) Intimacy - refers to teachers' enjoyment of friendly social relations with each other. A social needs satisfaction not necessarily associated with task accomplishment. (r = .192)Aloofness - perceived behavior by the principal characterized as formal and impersonal. Prefers to be guided by rules and policies rather than deal with teachers in an informal face-to-face situation. (r = -.155)Variable 3 - Characteristic of how No effect noted. shy, timid, threat-sensitive vs. adventurous, "thick-skinned", socially bold. Variable 9 - Traits of being No effect noted. tough-minded, rejecting illusions vs. tender-minded, sensitive, clinging, over-protected.

Variable 10 - Characteristic of No effect noted. being zestful, liking group action vs. circumspect individualism, guarded, internally restrained.

- Variable 11 Perceived as self- No effect noted. assured, placid, serene, complacent vs. apprehensive, insecure, worrying, troubled.
- Variable 12 Perceived as socia- No effect noted. bly group-dependent, a "joiner" and sound follower vs. selfsufficient, resourseful, prefers own decisions.
- Variable 13 Characteristic of No effect noted. being uncontrolled, lax, following own urges vs. controlled, socially precise, exacting will power.
- Variable 14 Traits of being relaxed, tranquil, turpid, unfrustrated vs. tense, driven, overwrought, fretful.

Disengagement - teachers' tendency to be "not with it". Focuses upon teacher behavior in a task-oriented situation. (r = -.146)

## Effect of School Climate (OCDQ) on Teacher Personality (16PF).

Using the bi-polar nature of the 16PF variables the data on teacher personality was analyzed against the OCDQ data. Again those personality traits from the 16PF listed first were assigned a lower numerical value on a scale while those personality descriptors listed second were assigned a higher value. Also low scores on the OCDQ variables of Disengagement, Hindrance, Aloofness and Production Emphasis and high scores on the variables of Esprit, Intimacy, Thrust and Consideration are indications of teacher perceptions of a favorable educational climate. (See Table 2, OCDQ Scores by School.)

A positive correlation coefficient from the analysis indicates a relationship between a high score an an OCDQ variable with a high score on the 16PF, or a low score on the OCDQ with a low score on the 16PF. All correlations in this analysis were positive, and with an "r" = .16 or greater, the correlation is significant at the .01 level.

Teacher Personality Variables

School Climate Variables

Variable A - Reserved, detach- P ed, critical, aloof, stiff i vs. outgoing, warm-hearted, s easy-going, participating. i

Production Emphasis - perceived behavior by principal characterized by close supervision of staff. Highly directive in nature, communication tends to go in one direction only and is not sensitive to staff feedback. (r = .202)

Consideration - perceived behavior of principal characterized by inclination to treat teachers "humanly". (r = .196)

Variable B - Less intelligent, concrete thinking vs. more intelligent, abstract thinking. Production Emphasis - perceived behavior by principal characterized by close supervision of staff. Highly directive in nature, communication tends to go in one direction only and is not sensitive to staff feedback. (r = .166)

Esprit - teacher morale. Teachers feel their social needs are being met and that they are enjoying a sense of accomplishment. (r = .165)

Intimacy - refers to teachers' enjoyment of friendly social relations with each other. A social needs satisfaction not necessarily associated with task accomplishment. (r = .161)

Variable C - Affected by feel- Esprit - teacher morale. (See above.)
ings, emotionally less (r = .312)
stable, changeable vs. emotionally stable, mature,
faces reality.

personally sets. Somewhat taskoriented but still viewed favorably by teachers. (r = .281)Intimacy - (See above.) (r = .279)Production Emphasis - (See above.) (r = .244)Aloofness - perceived behavior by principal characterized as formal and impersonal. Prefers to be guided by rules and policies rather than deal with teachers in informal face-to-face situations. (r = .241)Consideration - perceived behavior of principal as inclination to treat teachers "humanly". (r = .231) Disengagement - teachers' tendency to be "not with it". Focuses upon teacher behavior in a task-oriented situation. (r = .224)Variable E - Humble, mild, No OCDQ variable noted as predicting this 16PF variable. easily led, docile, accommodating vs. assertive, aggressive, stubborn, competitive. Variable F - Sober, taciturn, Esprit - (See above.) (r = .191)serious vs. happy-go-lucky, enthusiastic. Consideration - perceived behavior of principal as inclination to treat teachers "humanly". (r = .190)Thrust - (See above.) (r = .170)Variable G - Expedient, dis-Esprit - (See above.) (r = .195)regards rules vs. conscientious, persistent, moral-Consideration - (See above.) (r = .184)istic, staid. Thrust - perceived behavior of principal. (See above.) (r = .179)

Thrust - perceived behavior of principal as he attempts to motivate teachers, principally by the example he

Variable C (continued)

Variable H - Shy, timid, Thrust - perceived behavior of princithreat-sensitive vs. pal. (See above.) (r = .161)venturesome, uninhibited, Consideration - perceived behavior of socially bold. principal. (See above.) (r = .158) Esprit - teacher morale. (See above.) (r = .152)Variable I - Tough-minded, No OCDQ variable noted as predicting self-reliant, realistic vs. this 16 PF variable. tender-minded, sensitive, clinging, overprotected. Variable L - Trusting, accept-No OCDQ variable noted as predicting ing conditions vs. suspithis 16 PF variable. \_cious, hard to fool. · ----- -----Variable M - Practical, "down-No OCDQ variable noted as predicting to-earth" concerns vs. this 16 PF variable. imaginative, bohemian, absent-minded. Variable N - Forthright, unpre- Production Emphasis - perceived behavior tentious, genuine but social- of principal. (See above.) (r = .239) ly clumsy vs. astute, so-Esprit - teacher morale. (See above.) cially aware. (r = .224)Consideration - perceived behavior of principal. (See above.) (r = .224)Thrust - perceived behavior of principal trying to motivate teachers. (See above.) (r = .196)Intimacy - teachers' enjoyment of friendly social relations with each other. (See above.) (r = .171)Disengagement - teachers' tendency to "not be with it". (See above.) (r = .164)Aloofness - perceived behavior of principal seen as formal and impersonal. (See above.) (r = .156)

Variable N (continued):	Hindrance - teachers feel that the principal burdens them with routine de- mands - principal is perceived as hin- dering rather than helping teachers with their work. $(r = .152)$					
Variable 0 - Self-assured, placid, secure, complacent, serene vs. apprehensive, self-reproaching, insecure, worrying, troubled.	No OCDQ variable noted as predicting this 16 PF variable.					
Variable Q <sub>1</sub> - Conservative, respecting traditional ideas vs. experimenting, liberal, free-thinking.	No OCDQ variable noted as predicting this 16 PF variable.					
Variable Q <sub>2</sub> - Group-dependent, a "joiner" and sound follow- er vs. self-sufficient, re- sourceful, prefers own decisions.	No OCDQ variable noted as predicting this 16 PF variable.					
Variable Q <sub>3</sub> - Undisciplined, self-conflict, lax, follows	Esprit - teacher morale. (See above.) (r = .309)					
rules vs. controlled, exact- ing will power, socially precise, compulsive.	Thrust - perceived behavior of princi- pal trying to motivate teachers. (See above.) (r = .304)					
	Consideration - perceived behavior of principal. (See above.) (r = .285)					
	Intimacy - teachers' enjoyment of friend- ly social relations with each other. (See above.) $(r = .257)$					
	Aloofness - perceived behavior of prin- cipal seen as formal and impersonal. (see above.) (r = .246)					
	Production Emphasis - perceived behav- ior of the principal. (See above.) (r = .244)					
	Disengagement - teachers' "not being with it". (See above.) (r = .203)					

Variable Q <sub>3</sub> (continued):	Hindrance - teachers feel that principal burdens them with routine tasks. (See above.) (r = .167)
Variable Q - Relaxed, tran- quil, unfrustrated, com- posed vs. tense, frustrated, driven, overwrought.	No OCDQ variable noted as pre- dicting this 16 PF variable.

Effect of the Degree of Openness of School Plan on Individual Teacher Personality Variables. The first analysis in this area divided the degree of openness of the schools into the two categories of open plan and traditional plan schools, with the one open plan and two modified-open plan schools comprising one category and the two traditional plan schools in the second category. Analysis of the measured effect of this combination of school plans on teacher personality traits indicated that certain variables of teacher personality were predictors of the type of school plan.

Again considering the bi-polar nature of the variables in teacher personality and the two poles of school plans (traditional vs. open plan) a positive correlation co-efficient indicated that the teachers exhibiting the characteristics listed from Variable F below such as "Sober, taciturn, serious" (the first part of the variable) identified with the traditional school plan while those with the second set of characteristics from Variable F such as "happygo-lucky, enthusiastic" (second part of variable) identified with the open plan schools. Conversely, a negative correlation coeffi-

cient would indicate just the opposite - the first set of characteristics from the 16 PF variable identifying with the open plan schools and the second set identifying with the traditional plan schools. In this area 9.3% of the variance in teacher personality was predictable from the school plan.

The variables from the 16 PF are listed in order of their importance as predictors with the correlation coefficients listed following each variable. It should be noted that all correlations in this area were found to be positive.

- Variable A Reserved, detached, aloof vs. outgoing, warmhearted, easy-going. (r = .315)
- Variable I Tough-minded, self-reliant, realistic vs. tender-minded, sensitive, clinging, over-protected. (r = .247)
- Variable B Less intelligent, concrete thinking vs. more intelligent, abstract thinking. (r = .219)
- Variable E Humble, mild, easily led, docile, accommodating
   vs. assertive, aggressive, stubborn, competitive.
   (r = .219)

The second analysis in this area was similar to the first, but in this case, the analysis concerned itself with contrasting the same

teacher personality variables with the open plan school vs. the modified open plan schools. The variables are again listed in order of their importance with the correlation coefficients listed after each of the variables:

- Variable N Forthright, unpretentious and socially clumsy
   vs. astute, polished and socially aware.
   (r = .347)
- Variable M Characteristic of being practical, "down-to-earth"
   vs. imaginative, absent-minded, bohemian.
   (r = -.325)
- Variable I Tough-minded, self-reliant, realistic vs. tenderminded, sensitive, clinging, over-protected. (r = -.302)
- Variable L Trusting and accepting conditions vs. suspicious and hard to fool. (r = .300)

In this second area 8.9% of the variance in teacher personality was predictable for school plan. Combining both correlations it might be stated that overall 18.2% of the variance in teacher personality may be accounted for by differences in school plan.

Effect of Degree of Openness of School Plan on School Climate. Again as in previous analyses involving degree of openness the first analysis divided the degree of openness into the two categories of open plan and traditional plan schools, with the one open plan school and the two modified-open plan schools comprising one category and the two traditional plan schools in the second category. Also in the analysis involving the eight variables from the OCDQ, higher scores on the four variables of Esprit, Intimacy, Thrust, and Consideration and lower scores on the variables of Disengagement, Hindrance, Aloofness and Production Emphasis and indicative of more favorable school climate, while the reverse on these scores would indicate the opposite. (See Table 2, OCDQ Scores by Factor and School.)

From the analysis a positive correlation coefficient with any of the OCDQ variables would indicate a higher score on that variable identifying with the open plan schools and vice versa. Conversely, a negative coefficient value would indicate that a higher score on

that OCDQ descriptor would identify with traditional plan schools.

The only two OCDQ variables that this analysis indicated any relationship to school plan are noted as follows, with their correlation coefficients noted in parenthesis:

Consideration - perceived behavior of principal as an inclination to treat teachers "humanly". (r = .242)

Intimacy - teachers' enjoyment of friendly social relations with each other. A social needs satisfaction not necessarily associated with task accomplishment. (r = -.224)

A second analysis in this area involved only the two catagories of the one open plan school and the two modified-open plan schools analyzed against the OCDQ variables. In this case a positive correlation coefficient would favor the open plan school with the four OCDQ variables indicating a favorable school climate.

Only one OCDQ descriptor noted below with its correlation coefficient indicated any relationship to the type of school plan.

Thrust - perceived principal's behavior trying to motivate teachers, principally by the example he sets. (r = .204)

A formula for estimating the percentage of variation in the OCDQ attributable to differences between the groups is given by Finn (Finn, 1974) on page 91. Using this formula it was found that 4.1% of the variance in the OCDQ is a function of differences in school plan.

Variance in Personality Scores Accounted For By the Global Variables. Using either canonical correlation or multiple regression analysis techniques, the data was again analyzed. These techniques involved analyzing all the variables within an area (such as student personality) on a global or overall basis against all the variables in one of the other areas rather than just one variable at a time.

Correlation of Student Personality with Teacher Personality. This analysis revealed that overall 15% of the variance in student personality is accounted for by teacher personality. There might be some confounding of this finding because of possible built-in teacher attitudes. According to one suthor (Dreeben, 1970) most teachers have middle class backgrounds, have aspirations to be middle class or at least tend to follow middle class norms. Thus students and teachers may have been drawn from the same population, thereby mitigating a causal inference. However, the analysis indicated that only one of the individual canonical pairs was noted to be significant. Those factors in the HSPQ that loaded highest on this first canonical pair were:

- Variable 4 Measure of how undemonstrative, deliberate, inactive one is vs. being excitable, impatient, demanding, overactive. (r = .546)
- Variable 13- Characteristic of being uncontrolled, lax, following own urges vs. controlled, socially precise, exacting will power. (r = .542)
- Variable 1 Characteristic of being reserved, detached, critical, aloof vs. warm-hearted, out-going, easy-going, participating. (r = .340)

Those factors on the 16PF that loaded highest on the first can-

onical pair including the value of their correlation coefficients are:

- Variable Q<sub>3</sub> Undisciplined self-conflict, lax, follows own urges, careless of social rules vs. controlled, exacting will power, socially precise, compulsive. (r = .362)
- Variable F Sober, taciturn, serious vs. happy-go-lucky, enthusiastic. (r = .362)
- Variable A Reserved, detached, critical, aloof stiff vs. outgoing, warm-hearted, easy-going, participating. (r = -.339)

Correlation of Student Personality with School Climate. The

canonical correlation analysis of this data indicated that the measured school climate (average OCDQ scores) had no significant effect on the student personality (HSPQ). None of the individual canonical pairs were significant. Those factors in the HSPQ that loaded highest on the first canonical pair were as follows:

- Variable 7 Traits of disregard for rules, expedient vs. Conscientious, persistent, staid, moralistic. (r = .367)
- Variable 14 -Traits of being relaxed, tranquil, turpid, unfrustrated vs. tense, driven, overwrought, fretful. (r = .268)

Also those factors in the OCDQ that loaded highest on the first canonical pair along with their correlation coefficient were:

Production Emphasis - Perceived behavior by principal characterized by close supervision of staff. Highly directive in nature, communication tends to go in only one direction and is not sensitive to staff feedback. (r = -.529)

- Disengagement Teachers' tendencey to be "not with it". Focuses upon teacher behavior in a task-oriented situation. (r = .307)
- Esprit Teacher morale. Teachers feel their social needs are being met and that they are enjoying a sense of accomplishment. (r = .302)

Correlation of Student Personality With School Plan. Using mul-

tiple regression techniques in an attempt to further determine the effect of different school plans on student personality, two different analyses were made in this area.

The first analysis revealed that 6.8% of the variance in measured student personality (HSPQ) was explained by the open plan vs. the modified open plan schools and this analysis was found to be significant. Those factors of student personality most predictable from the differences in school plan were as follows, and in all cases, the open plan school is associated with slightly higher scores on the first set of adjectives in the variables listed below:

- Variable 4 Measure of being excitable, impatient, demanding, overactive vs. how undemonstrative, deliberate, inactive one is.
- Variable 12- Perceived as sociably group-dependent, a "joiner" and sound follower vs. self-sufficient, resourceful, prefers own decisions.
- Variable 13- Characteristics of being controlled, socially precise, exacting will power vs. being uncontrolled, lax, following own urges.
- Variable 14- Traits of being relaxed, tranquil, turpid, unfrustrated vs. being tense, driven, overwrought, fretful.

The second analysis in this area indicated that 6.2% of the variance in measured student personality was explained by the open plan schools vs. the traditional plan schools with the relationship again found to be significant. The following student personality factors most predictable from the differences in school plans are listed below. In all cases the open plan school is associated with slightly higher scores on the first set of adjectives in each of the variables listed below:

- Variable 12 Perceived as self-sufficient, resourceful, prefers own decisions vs. sociably group dependent, a "joiner" and sound follower.
- Variable 2 Characteristic of being bright, abstract-thinking vs. being dull, concrete-thinking.
- Variable 14 Traits of being tense, driven, overwrought, fretful vs. being relaxed, tranquil, turpid, unfrustrated.
- Variable 4 Measure of how undemonstrative, deliberate, inactive one is vs. being excitable, impatient, demanding, overactive.

It might be noted that three of the four variables of student personality most predictable from the differences in school plans appeared in both analyses. Combining the results from both correlations gives the result that overall 13% of the variance in measured student personality in this study is explained by plan differences in school plans.

Correlation of Teacher Personality with School Climate. This analysis revealed that 2.8% of the variance in the teacher personality (16PF) is predictable from the school climate (OCDQ). None of the canonical pairs were found to be significant. Those 16PF factors that loaded highest on the first canonical pair and their coefficients are listed as follows:

- Variable 0 Self-assured, placid, secure, complacent, serene vs. apprehensive, self-reproaching, insecure, worrying, troubled. (r = .433)
- Variable G Expedient, disregards rules vs. conscientious, persistent, moralistic, staid. (r = .395)

Those OCDQ factors that loaded highest on the first canonical

pair and their respective correlation coefficients are as follows:

- Consideration Perceived behavior of principal characterized by an inclination to treat teachers "humanly". (r = .689)
- Intimacy Refers to teachers' enjoyment of friendly social relations with each other. A social needs satisfaction not necessarily associated with task accomplishment. (r = -.634)
- Esprit Teacher morale. Teachers feel their social needs are being met and that they are enjoying a sense of accomplishment. (r = .613)

Correlation of Teacher Personality with School Plan. Again two

different analyses were made in this area, separating the school plans

into open plan vs. modified open plan and open plan vs. traditional plan.

The first analysis indicated that 8.6% of the variance in measured teacher personality (16PF) is predicted by the school plan (open plan vs. modified open plan), and this relationship was found to be significant. Those factors of teacher personality accounting for most of the variance are listed as follows, with the open plan school associated with slightly higher scores on the first set of adjectives in each of the variables listed below:

- Variable M Characteristic of being imaginative, absent-minded, bohemian vs. being practical, "down-to-earth"
- Variable N Forthright, unpretentious, genuine but socially clumsy vs. astute, polished, socially aware.
- Variable E Assertive, aggressive, stubborn, competitive vs. humble, mild, easily led, docile, accomodating.
- Variable G Conscientious, persistent, moralistic, staid vs. expedient, disregards rules.

The second analysis in this area indicated that 8% of the variance in measured teacher personality was explained by the open plan schools vs. the traditional plan schools, with this relationship found to be significant. The following teacher personality traits accounted for most of the variance with the open plan schools associated with slightly higher scores on the first set of descriptors in the variables listed below:

- Variable G Expedient, disregards rules vs. conscientious, persistent, moralistic, staid.
- Variable Q -Group-dependent, a "joiner" and sound follower vs. self-sufficient, resourseful, prefers own decisions.
- Variable B More intelligent, abstract-thinking vs. less intelligent, concrete-thinking.
- Variable Q<sub>3</sub>- Controlled, exacting will power, socially precise, compulsive vs. undisciplined self-conflict, lax, follows own urges, careless of social rules.

By combining the results of both correlations it might be stated that overall 16.6% of the variance in measured teacher personality in this study may be explained by plan differences in the schools.

#### Full Path Analytic Model

Since two different analyses were performed on the data compiled for the study, a second order correlation was then performed to combine the results of the first two series of correlations. Their combined results were used to develop a Full Path Analytic Model as an explanation of the effects of schools on student personality.

The following model in two parts portrays the path diagnosis of the data and total direct and indirect effects for maximized results.

# Path Analytic Model

Key:

Path Coefficient - .306

Correlation coefficient - (.387)



Total Indirect Effects of :

% Direct % Indirect

16PF	on	HSPQ	÷	.387		.306	=	.081	79	21
Туре	on	HSPQ	=	.340	-	.276	=	.064	81	19
OCDQ	on	HSPQ	=	.155	-	.098	Ξ	.057	63	37
16PF	on	OCDQ	=	.332		.107	=	.225	32	6 <b>8</b>
Туре	on	OCDQ	Ξ	.202	-	.096	=	.106	47	53

Overall Model and Percents of Variance Accounted for Within This Sample.



Conclusions:

1. The teachers' personalities are related to the students' personalities. Fourteen per cent (14%) of the variance in HSFQ is predictable from the 16PF of which eleven per cent (11%) is 3 direct effect and three per cent (3%) is indirect.

2. Type of school plan is related to the students' personalities. Twelve per cent (12%) of the variance in HSPQ is predictable from school plan of which ten per cent (10%) is a direct effect and two per cent (2%) is an indirect effect.

3. The organizational climate of the schools has a very small (2.4%) effect on the student personalities with one and a half per cent (1.5%) being direct and nine tenths per cent (0.9%) being indirect.

4. The teachers' personalities are related to the school climate. Eleven per cent (11%) of the variance in school climate (OCDQ) is predictable from the teacher personality (16PF) of which three and one-half per cent (3.5%) is direct and seven and one-half per cent (7.5%) is indirect.

5. The type of school plan is related to the school climate. Four and one-tenth per cent (4.1%) of the variance in school climate is predictable from the type plan of which two per cent (2%) is direct and two and one-tenth per cent (2.1%) is indirect.

## Overall Effect of Individual Variables in Personality.

This is an overall summary of variance in student personality accounted for by the techniques of analysis used in this study of the three global variables of teacher personality, school plan and school climate. Using these global variables and overall regression models, an overall regression analysis determined that overall 19.4% of the variance in student personality is accounted for by these three variables. It was found that teacher personality and school plan accounted for most of this variance, since the school climate was analyzed as accounting for only 0.2% of the variance while the type of school plan accounted for 11.6% and the teacher personality for 7.6% of the variance in student personality.

#### Chapter V

#### Summary, Interpretation and Recommendations

This chapter will present a summary of the methods and procedures and the findings from the analysis of the data. It will also interpret the findings, develop the theoretical framework and make some recommendations for further research.

#### Summary of Methods and Procedures

This study was designed to assess the relationships of student personalities to educational climate, school plan and teacher personalities. A random sampling technique was used in selecting two hundred eighty-eight (n=288) seventh and eighth grade students from the five junior high schools in the study. All of the faculty members of these same five schools who had been teaching in their positions for the full school year with the exception of approximately fifteen percent who did not respond constituted the remainder of the subjects in the study. (n = 171)

Personality profiles on all the subjects in the study were obtained by administering the High School Personality Questionnaire (HSPQ) to the students and the 16 PF to the teachers. The data were gathered in such a way as to be able to analyze the individual student's personality profile against an average personality profile of all of his or her teachers. The educational climate in each school as perceived by the teachers was then assessed by administering the Occupational Climate Description Questionnaire (OCDQ) to the faculty

members in the five schools. Data identifying the school of the student or the teacher as an open plan school, a modified open plan school or a traditional plan school were also gathered.

The scoring of the OCDQ resulted in the development of profiles of educational climate for each school in the study. These profiles when compared to prototypic profiles developed by the authors of the instrument produced a labeling for each school regarding its educational climate.

The data were analyzed to determine if there are significant differences in student personalities, school climate and teacher personalities. Correlation, multiple discriminant analysis, multiple regression and canonical correlation techniques were used in analyzing the data in the study.

## Summary of Findings Regarding Individual Personality Variables

The first series of analyses involved the interrelationship of the individual variables of student personality, teacher personality, type of school plan and school climate with each other. The following is a summary of these findings.

In the analysis of the interrelationship of teacher personality with student personality nine of the fourteen descriptors of student personality indicated significant relationships to teacher personality variables with all these correlations being positive in nature. Since the two instruments used in this area of the study, the HSPQ and the 16 PF, are different age group versions of the same instrument, these

positive correlations would generally indicate teachers relating to students of somewhat similar personality profiles.

Analysis of the effect of the degree of openness of the school plan on student personality indicated no significant bivariate relationship present.

The analysis involving the effect of school climate on student personality showed only three of the fourteen HSPQ descriptors to be significantly related to any of the school climate variables. However, in each of these cases where a significant relationship was found to exist the more desirable student personality characteristics were found to be related to those OCDQ descriptors indicating the more favorable school climate.

Of the sixteen descriptors of teacher personality eight were found to be significantly related to the school climate. In general, those variables denoting the more favorable school climate were related to the more desirable teacher personality characteristics. The only exception to this was that the OCDQ descriptor of "Production Emphasis", generally not considered to be an indication of a favorable school climate, appeared three times as a leading predictor of teacher personality.

The effect of the degree of openness of school plan on teacher personality was analyzed in two parts. When the traditional plan schools were analyzed against the combination of open plan-modified open plan schools it was found that seven of the sixteen teacher personality factors were significant predictors of the school plan,

and in all seven cases, the more desirable teacher personality traits were related to the open plan-modified open plan schools.

In the second part of this analysis the open plan school was analyzed against the modified open plan schools as predicted by teacher personality traits. In this case nine of the sixteen teacher personality traits were predictors of the school plan. Of these nine traits, the three with the highest correlation favored the open plan school while the next six favored the modified open plan schools.

In analyzing the effect of the degree of openness of school plan on the school climate the analysis was again divided into two parts. Only two of the eight school climate variables indicated any relationship to the school plan in the first analysis. One of the OCDQ variables favored the open plan-modified open plan schools while the other seemed to favor the traditional plan schools. In the second analysis only one predictor indicated any relationship to the type of school plan, and in this case seemed to favor the modified open plan schools over the open plan school.

## Summary of Findings Regarding Global Personality Variables

The second series of analyses resulted from canonical correlations and multiple regression analysis of the interrelationships of broad global variables of student personality, teacher personality, type of school plan and school climate with each other. The following is a summary of these findings.

This analysis of the interrelationships of teacher personality

variables with student personality variables indicated that only one canonical pair of the variables was significant. The three factors from student personality that loaded highest on this first canonical pair were all positive, thereby indicating a favorable relationship. The two factors from teacher personality that loaded highest on this first canonical pair were also positive. (A complete listing of these factors and those referred to in the remainder of this summary are listed in detail in Chapter IV.) Again as with the first series of analyses the general trend indicated that teachers tended to relate to students with somewhat similar personality profiles.

In the correlation of student personality with school climate the analysis indicated that none of the correlations were significant. The three factors from student personality that loaded highest on the first canonical pair were all positive. Of the three factors from the school climate analysis that loaded highest on the first canonical pair two of the factors indicated favorable relationships.

Multiple regression techniques were used to correlate student personality traits with different school plans. The variance in student personality as explained by the open plan-modified open plan schools vs. the traditional plan schools was found to be significant as was the variance explained by the open plan vs. the modified open plan schools. Three of the four variables in student personality
most predictable from the differences in school plan appeared in both analyses.

In the correlation of student personality with school climate the analysis indicated that none of the canonical correlations were significant. The three factors from student personality that loaded highest on the first canonical pair were all positive. Of the three canonical pairs two indicated favorable relationships. All of the three school climate factors that loaded highest on the first canonical pairs indicated favorable relationships.

When teacher personality was correlated with school plan, the relationships were found to be significant in both cases of open plan-modified open plan schools vs. traditional plan schools and open plan school vs. modified open plan schools, indicating that teacher personality was a predictor of type of school plan.

Full Path Analysis of Student Personality Data

A second order correlation was performed on the data from the two preceding sections, individual personality variable analysis and global personality variable analysis. Using this technique a Full Path Analytic Model (details in Chapter IV) describing the effect of the other variables on student personality was produced.

This final summation of data indicated that the type of school plan accounts for about 12% of the variance in student personality, with the teacher personality accounting for about another 14%. Combined, these two variables account for about 19% of the variance in

student personality because the type of school plan and teacher personality are also correlated.

School climate as perceived by the teachers only accounts for 2.4% of the variance in student personality. However, when the school climate correlation is combined with the correlation of the type of school plan and teacher personality the overall correlation is only increased from 19.2% to 19.4%.

## Interpretation and Recommendations

From the research in this study it is apparent that the type of school plan, school climate and teacher personality do account for variance in student personality.

The study indicated that teacher personality and type of school plan each impacted student personality about equally but we also know that there is a relationship between these two independent variables---that their impacts are not independent. This is one emerging issue of the study that needs to be further investigated. It is important because if they were not related there may have been a much larger total impact on student personality. It was the inner correlation between these two variables that reduced the total amount of variance accounted for. This relationship might be explored through further research in areas such as the possibilities of certain types of teachers migrating to certain types of schools, of certain types of teachers remaining in certain types of schools and of school plans changing teacher personalities.

Something also to consider might be the effect of school plan on student personality if teachers were just randomly assigned. Would teachers have to go through some kind of metamorphasis--would teachers have to change before the school plan started to effectively impact the student personality? Would that correlation have to be for either of the variables to work?

Because the final measured effect of the teachers' perception of the effect of school climate on student personality is so small (2.4%) does not mean that it is not important. A further look at the study results show that school climate did correlate with teacher personality (11%) and with the school plan (4.1%). It would be expected for teacher personality to be reflected in their perception of the school climate even as it would be expected for the physical model of the school plan to be reflected in the same perceived school climate. Given the possibility that a good measure of school climate might not have been made, let's proceed as if it were good. The school climate may have some kind of indirect effect that we may not have been able to measure. The original research design may not have been designed to find this, or it could be that school climate is in fact a dependent variable itself. It is possible that the impact of the perception of school climate is just another in a series of dependent variables such as student personality which are not too related to each other, resulting in a very low correlation as was in this case of correlation with student personality. It also

might be that school climate impacts a certain class of variables in students of which personality is not a member, such as cognative variables. It might not be justifiable to assume that the teachers' perceptions of the climate in the schools impact everything the teacher does, or more importantly, will impact the recipients in every way. Maybe it is a sub-set of social variables---interaction among students---that we would find related to the teachers' perceptions of the climate of the school.

Obviously student personality is a facet of a student and should not be neglected but should be emphasized fully as much as cognative development? Or should it have more emphasis? Obviously it should have some emphasis. The greatest difficulty would probably lie in determining which personality traits are the most desirable and should therefore be emphasized and developed. It might be interesting to develop what we might call "the ideal personality". One interesting note in relation to this is that ten to fifteen years ago it was said that we wanted students to be able to function as independent thinkers. Then in the 1960's we saw some real independent thinking. We found the independent thinking was there but most people agreed that too often they thought of the "wrong" answers. This should make everyone stop and ask themselves just what it is that they really want. If we idealize personality to the point that we have totally independent, selfsustaining, self-reliant students, "the ideal personality", we

could possibly find that this person could not function in the would as we know it today.

In the light of these possibilities we had at least better know what dimensions of a child's personality seems to be potentially causally related to certain dimensions of teacher personality. We must also start asking ourselves what we want, or in other words, what sort of personality is most desirable. This could be a very controversial area. Just about all parents are quite agreeable, and even very supportive, when we suggest that their students develop skills and knowledge in mathematics, language, the arts and other curricular areas, but when we suggest something having to do with manipulating the students' personalities there would likely be some strong opposition. It might be questioned as to the school's having the right to do this, or having the knowledge and skills necessary to do it. It might even be likened by some as similar to changing genetic make-up. Apparently, however, we are already doing just that. The issue becomes whether we do it systematically or do we do it as a function or a by-product of the other things we have to do.

One of the things it appears that schools ought to do, apart from spending so much time on making curriculum decisions or cognative outcome decisions, is that there might also be a point at which we ought to start looking at what kind of personality we want to develop in our students. Given certain dimensions we might idealize

the student coming out of the perfect school, and then work toward attaining this ideal.

It has been found for the third time (two previous Carbonari studies) that student personalities are explained by variables such as school plan, teacher personality and school climate (at least nearly 20%). At this stage such evidence of the effect of teacher personality and the type of school plan on student personality, and particularly the combination of the two, make a convincing argument for school planners to take these factors into consideration in the development of future school organizational plans and in curriculum development. · · · ·

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