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Status study of the characteristics of differences in student interests in course offerings and teacher perceptions of those interests on parallel items.

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STATUS STUDY OF THE CHARACTERISTICS OF DIFFERENCES IN STUDENT INTERESTS IN COURSE OFFERINGS AND TEACHER PERCEPTIONS OF THOSE INTERESTS ON PARALLEL ITEMS

A Dissertation Presented

By

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July 1971

DEDICATION

To Lillie, Jacqueline and Maiso III; my mother, wife and son

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CHAPTER I

INTRODUCTION

In spite of a sharp increase of special programs aimed at serving a wider variety of students and students' needs over the past decade, youngsters continue to drop out of school at an alarming rate. Nationally, only about 60 per cent of those who start high school graduate; of those who graduate, only about 25 per cent continue their education. Finally, only 8 per cent of those who continue their education go on to earn four year college degrees, after having completed high school (Coleman, 1966).

Moreover, large numbers of those who graduate are ill-prepared to make adequate career decisions. They do not possess the skill required to permit them to begin to discharge the responsibilities of a career. Thus, it is that often, many valuable post-high school years are spent in a state of indecision somewhere between the college campus, the temporary job and the thoughts of marriage, (Havighurst, 1969).

Undoubtedly, there are many underlying and interrelated factors that contribute to these conditions. High among them, according to many sources, (e.g., Duster, 1967; Storlie, 1966; Ornstein, 1970), is the fact that teachers and administrators have not focused enough attention on establishing programs that

will effectively tap legitimate student interests. In the words of Goodlad (1969), "Large segments of our educational enterprise simply do not provide a way of life centered upon the interests and values of their clients. In fact, many schools do not regard their students as clients and thus fail to reach them in any deep and meaningful way," (p. 86).

Because of this lack of compatability between the long term goals of schools' programs and the immediate range of student interests, many schools have not been able to create the kind of academic climate that is conducive to learning. Students, on the one hand, view the school's programs as being hostile to their own interests, rigid in its offerings, irrelevant as an activity, and burdensome in general. As a result students feel alienated from the school and eventually turn to a host of other activities. Teachers, on the other hand, view many of their students as being unable to "live up to standards," and forsake the process of learning for the technique of drill and review, (Weinstein, 1968).

Thus it is that many of our nation's high schools have become centers of estrangement between students and teachers. What should be a climate which fosters learning, growth and exploration, is, in fact, an environment which fosters distrust, conflict and alienation.

The difficulties that exist currently in Polytechnic High School are representative of those encountered in other urban school settings throughout

the United States. These difficulties include low academic achievement, high absenteeism, high dropout rate, low student motivation, little student cooperation, and pervasive discipline problems.

In the past, these symptoms have been treated as causes of student unrest and little progress, if any, has been made in making schools more responsive to students interest and thus more relevant to the entire educational process. Various high school programs have demonstrated that when student interest and the long term goals of the school are brought together, in closer harmony, learning in fact, does transpire.

The general purpose of this study is to focus on the relationship between student interests and curriculum at Polytechnic High School in order to provide data which may be useful in redefining the school's program along lines which will increase the school's capacity to effectively fulfill the individual needs of the students.

Statement of the Problem

Much of the available research dealing with student interests and teacher perceptions is limited to only one aspect of the school environment; namely, the teacher-student relationship, (Flanders, 1965; Gage, Leavitt and Stone, 1955). Other related studies have been concerned with systematically identifying multiple environmental features across several schools at the secondary level, (Sinclair, 1968) and at the college lavel (McFee, 1961; Pace and Stern, 1958;

and Thistlewaite, 1959).

In general, studies dealing with multiple environmental features have attempted to determine whether school environments are, in fact, learning environments by assessing student reactions to various components of the school setting (e.g., courses, teachers, library facilities, etc.). Unfortunately, however, despite the fact that teacher responses were also collected in many instances, these responses were based on questions concerning teacher perception of students rather than on questions dealing either with teacher perception of the school environment or teacher perception of student reactions to these environments.

Although useful information is certainly provided by such studies, the data derived from these studies should be supplemented by research which attempts to describe perceptions of the school environment from several points of view; that of students, teachers, administrators and community groups.

The present study was designed to provide information regarding these several viewpoints. Although it would have been desirable to include administrators as participants in the investigation, due to the inaccessibility of school district personnel, the data are limited to responses obtained from students, teachers, and parents associated with Polytechnic High School.

The basic question to which this investigation was addressed is whether or not differences exist between student interests on the one hand, and teacher

and parent perceptions of those interests on the other. For purposes of this study, interest has been conceptualized in fairly broad terms. Rather than being limited to a like/dislike or an interesting/uninteresting continuum, it is also used to refer to a utility dimension as applied to judgments of various course offerings.

More specifically, this study sought to determine whether a stable pattern of student interests could be identified, and if such a pattern emerged, whether or not this pattern is accurately perceived by parents and teachers, those who in the final analysis, will be responsible for exerting pressures on an educational structure which has proven highly resistant to change.

Significance of the Problem

Although the stated purpose of this study is to investigate student interests, its implications are much broader than may be immediately apparent. Admittedly the focus of this study is necessarily limited to only one of the multitudinous factors that may affect the student's response to a particular educational program, and thereby, his response to education in general. However, there is currently a growing concensus of opinion that the student interest variable may be the key to developing programs of major significance in attempting to increase the effectiveness of school programs, (Atkinson, 1965).

Although a number of the other variables have been manipulated in

attempts to improve the quality of education, as Larson (1968) has noted, despite the clamor for increased relevance, changes in staffing patterns, technology and other areas have been instituted, while "the curriculum remains as [an] unscathed and formidable anachronism." The point of view taken in the present study is that extensive curriculum changes are in order at this time. In the words of Baratz and Baratz (1969), "Larger doses of the same medicine in a new bottle do not appear capable of curing the ills of urban education. The recent evaluations contained in the Coleman report on compensatory education and the reports of the Center for Urban Education confirm these assertions,"

Although the Baratz's concern was primarily with language instruction in predominantly Black schools, their appeal for programs which provide educational experiences which are consistent with the learner's frame of reference is applicable in a broader sense. In fact, a growing number of educators are expousing essentially the same view. Representative of this view is Taylor's statement that the effect of education is often, "to divorce learning from life, to put the student in a passive role, and to force him through the study of materials which are irrelevant to his own interests and to the needs and problems of the society around him," (Taylor, 1971, p. 73).

In essence, what these writers seem to suggest is that the redefinition of school programs be undertaken with a view toward increasing the extent to which curriculum reflects a sense of what students perceive as being important to learn and to discuss in the school setting. One of the guiding assumptions of

the present study is that the assessment of student interests provides a vehicle for determining these new priorities. Furthermore, the assessment of teacher and parent perception of these interests provides a vehicle for determining the extent to which such input to curriculum decisions accurately reflects student priorities.

It is the writer's belief that by identifying areas of agreement and disagreement with reference to Polytechnic's program of study, the investigation reported herein can aid in laying the foundation for the development of a more viable curriculum model. Ultimately, it is hoped that the total environment can be altered in such a way as to enable Polytechnic to draw on all the strengths of its students, its teachers, and interested parents. Hopefully, the findings of this study can help to create a situation in which education in this school is perceived as a fruitful, a desirable and a necessary process for all of the individuals involved.

Limitations of the Study

1. The sample included in this study consists of 300 students, 73 teachers, and 50 parents selected randomly from the population at Polytechnic High School in San Francisco, California.
2. Due to the constraint noted above, results may not be completely generalizable to populations with different

demographic, and/or socio-economic characteristics, or to private, vocational or experimental schools.

3. The sample does not include school administrators or other school personnel with non-teaching status.
4. Because many of the critical items in the questionnaire involved forced choices, certain legitimate areas of student interest remain untapped by this investigation.

Approach to the Study

Student, teacher, and parent reactions were sampled using a 20 item questionnaire developed especially for this study. Responses were tabulated separately for the three groups included in the sample. Data were analyzed using Spearman's Rank Order Coefficient of Correlation, (Siegal, 1956).

The remainder of this treatise provides a review of related research in the field of student interest (Chapter II), a description of the research instrument and procedures used in collecting data (Chapter III), a presentation of the major findings of the study (Chapter IV), and a statement of the implications of the findings (Chapter V).

Background Information

Polytechnic High School, one of nine high schools in the San Francisco Unified School District, was built in 1914, with the major shops being added some

few years later. Polytechnic is located in the heart of a community which is currently multi-racial and in close proximity to a large medical educational complex, a fine university, a museum, a science center and the city's largest botanical recreational center. Some portions of the community, however, are presently undergoing urban renewal.

According to the 1960 United States Census, the medium income ranges from $3900.00 to $5200.00 with as many as 2/3 of the families falling below the $4500.00 level. Serious crime and male unemployment are among the highest in the city, with every indication that both are on the increase. The figures of the Department of Social Service (public assistance) indicate that 30 per cent of the community receives grants from their funds.

The educational level of the adult population of Polytechnic students is lower than that of the rest of the city. This condition is gradually being improved through the use of special education and new career programs for paraprofessionals who can secure employment in schools, hospitals, and social agencies.

Originally built to accommodate slightly over 2,000 students, Polytechnic is currently operating at about 50 per cent capacity. Much of the physical plant is now outmoded and the school as a whole is in need of refurbishing. As is the case of most older structures in San Francisco, it is expected that the physical plant will not meet structural requirements as set forth in the Field Act (1969).

As recently as the early 1950's Polytechnic enjoyed a fine reputation among San Francisco's high schools as much for its curricular programs as for

its extra-curricular activities and athletic teams. At that time also, the student body was predominantly white, having less than ten per cent Black students. The faculty, until quite recently, was one-hundred per cent white.

During the 1960's conditions began to change dramatically at Poly. There began to occur a rapid increase in the percentage of Black students and a marked decrease in that of white. By 1960, Black students accounted for about twenty per cent of the student population.

As explained by a former principal of Polytechnic, part of this ethnic shift was as a result of external instabilities in the surrounding community, mainly the lower Haight-Asbury section, involving the in-migration of minority persons and so-called "long-haired, flower people" and the out-migration of white families and merchants.[1] A change in Board policy converting Polytechnic to an Open District School also seemed to contribute to the shift in ethnic balance. In addition, many white students who normally would have attended Polytechnic High School found methods that enabled them to enroll in other San Francisco schools. In general, these students tended to be the more academically inclined, and though they included members of all ethnic groups (white, Black, Chinese, Mexican), the majority by far was white.

By 1966, the population of Black students had increased to approximately 40 per cent. By 1970 the figure reached 98 per cent. This was due to several

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[1] Personal communication.

factors, including the rapid change in student population make up, and the shift in kind of courses that remaining students cared to pursue, the curriculum offering for academically oriented students began to decline.

During the school year of 1966-67, a number of events began to transpire at Polytechnic that perhaps caused an acceleration in the deterioration of conditions conducive to a positive educational climate. Among them were the following: the teachers' strike in San Francisco in 1966, the rapid change-over in principalships (five in six years) and the great disagreement within the faculty on how to solve some of the problems.

The San Francisco Teachers' strike of 1966-67, which was led by the American Federation of Teachers produced perhaps a negative effect at Polytechnic High School inasmuch as the strike was highly controversial, and tended to polarize the faculty further regarding possible approaches to some of the problems (central to the issues was that of hiring more Black teachers and administrators). After winning a number of concessions from the school district a number of the teachers of Polytechnic began to request that meaningful changes be made at the school so that students might get a good education.

Each of the five principals who served between 1965 and 1971 initiated approaches for improving educational programs in the school. Some of the suggestions called for converting the school into a continuation school,

transforming it into a performing arts school and making it a junior high school.

At the close of the 1967-68 school year, a delegation of teachers and the principal met with the superintendent of schools to express their concerns about discipline, poor attendance, cutting of classes, loitering and gambling, near the Polytechnic campus. As a result of this meeting, a special task force was formed to make recommendations for corrective measures.

In the spring of 1968, student discipline problems appeared to increase and the school became a scene of repeated racial conflicts between Black and white students.

According to a ranking member of the counseling staff, white students began to transfer to other schools in the district at an accelerated rate so that today the school is well over 90 per cent Black in a total population of almost one thousand students.[2] One of the community's demands that emerged from these confrontations was that a Black male be named principal of Polytechnic High School. The first Black high school principal in the history of San Francisco was appointed to Polytechnic in July 1968.

In August of 1968, a series of workshops involving students and teachers were inaugurated. The purpose of the workshops was to develop plans to improve the curriculum during the school year.

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[2]Personal communication.

Included in the many recommendations from the summer workshops were request for additional classified personnel, and qualified counselors. However, conditions in school continued to decline steadily.

By October 1968, the renovation of the entire Industrial Department facilities had rendered one-fourth of the school plant inoperable. Industrial Arts classes were being held in makeshift areas. The assignment of inexperienced personnel in key administrative slots, due to heavy turnover, was causing problems. In the opinion of some members of the administrative staff, personnel who were assigned to assist in the school in such capacities as hall patrol, cafeteria and outside superivision were both insufficient in number and inadequately prepared.[3]

The strike at San Francisco State College and increasing separation between Black and white professionals appeared to be causing problems at Polytechnic as well as at a number of the city schools.

The biggest single incident that affected student-teacher relations was the publishing of a letter of unfortunate content by the San Francisco Chronicle, that a group of twenty teachers had drafted. Among other things, the letter referred to some of Polytechnic students as being "pimps and prostitutes!" Publication of the letter succeeded in bringing about stronger alienations between and among the teachers and students.

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[3]Personal communication.

CHAPTER I I

REVIEW OF RELATED RESEARCH

Although a great body of research on student interest exists, much of this work has been concerned with the relationship between such interest and either academic performance. On many of these studies, the basic aim of the research has been to validate the common sense notion that individuals are more likely to learn (or operationally stated, more likely to meet some performance criterion for learning) if "properly" motivated. In the words of Atkinson, "a student must be sufficiently mot ivated to attend. . . a school, . . . and sufficiently interested in what is going on in the classroom to pay attention once in a while if educational curricula are to have any of their intended effects on him," (Atkinson, 1965, p. 25).

Although there is some evidence for the position that interest in specialized fields of study correlates moderately with academic success in those fields (Shapell, Arnold and Gregory, 1969), some investigators have concluded that in general, the relationship between interest and academic achievement is a delicate one (Frandsen and Sörenson, 1968). This conclusion is supported by a number of investigations. Garret (1948), for example, studied 4,000 high school and college students over a period of twenty-one years, only to find that interest

scores added little, if any, to intelligence scores as predictors of success in college.

In another study of the relationship between interest and performance, Thomas, Morrill and Miller (1969) sampled 250 male students, on the assumption that high interest in a particular subject would be reflected in higher grades. Only moderate relationships emerged between interst and performance. In reviewing the studies of interests and performance in related courses, (Lavin, 1963) found that for students enrolled in a professional curriculum (i.e., medicine and engineering) measures of students' interests were not related to performance. However, Lavin concluded that measures of interests are useful in predicting academic performance, if ability is adequately controlled for in the investigation.

In the absence of definitive support for the hypothesis that learning is facilitated by appropriate interests, it may appear that any attempt to enhance learning through capitalizing on the expressed interests of students is, at best, misguided. However, it may also be the case that studies which failed to support the positive relationship between interest and performance based measures of learning have dealt with overly restrictive concepts of interests.

In discussing the relationship of interest to other motivational variables, Knox (1968) pointed out an important distinction; that interest in a particular area or object implies that the area or object in question will be chosen over

other available alternatives. While it is true that Knox made this distinction primarily for purposes of theoretical clarification, it is worth noting that choice is considered a central issue in many of the recent papers treating student interests and concerns.

Although a good number of papers deal with choice in terms of issues related to student participation in policy making (see for example Duster, 1968; Ornstein, 1970), other papers to provide a basis for identifying student choices that are more related to curriculum planning. In discussing a school based controversy in Chicago, for example, Spillman (1969) reported that Black students demanded that Black History courses and more technical and vocational courses be established in their school.

Because most systematic studies of student interest have been constrained by course offerings as defined in traditional curriculum areas, they were not equipped to identify interests in certain courses. Such courses as Black History could not be used since they were not included in high school programs of study until quite recently. Furthermore, because most systematic investigations have not been concerned with the choice aspect of interest, they have not provided data which are useful for identifying relative preference among course offerings. Thus, these studies could not have revealed student dissatisfaction with the narrow range of vocational offerings reported by Spillman.

Spillman indicated that the educational concerns of students are not limited to issues regarding programs of study. In addition to indicating course preferences, the students in Chicago also voiced dissatisfaction with the race and social class identification of teachers, and dissatisfaction with the point of view taken by teachers in various courses. Obviously, the more traditional, academically oriented studies of student interests could not reflect these concerns.

Although on the surface, such concerns may appear unrelated to the stated focus of the current study, given a broader definition of curriculum such as Carter's (1971), admissible questions for this study not only include what should be taught, but also how it is to be taught and by whom.

Carter defines curriculum as having three elements; content (courses and materials), methods and sequences. Given this context, student demands for teachers familiar with the culture and life styles of Blacks can be interpreted as evidence of dissatisfaction not only with the content of courses, but with the formal methods of instruction as the equally important social attitudes used in conveying course content.

It should perhaps be pointed out that many student demands which fall under the general rubric of "increased relevance" are legitimately considered as evidence of dissatisfaction with traditional curricula. In fact, in discussing sources of irrelevance in traditional education, Weinstein and Fantini, (1968),

pointed out several ways in which standard curricula fail students.

Two such failures deal specifically with the "what" or the context aspect of curriculum. These failures can be attributed to the school's reliance on materials which are not easily related to the learner's experiential frame of reference and on its inability to provide experiences which touch on real concerns of students when such concerns are not a part of the formal curriculum. The introduction of ethnic studies at the secondary and college levels as well as the use of multi-ethnic elementary grade readers such as the MacMillan Book Secret Series and the Harper and Row Series represents two of many approaches currently being tried in the name of increased curricular relevance.

A second criticism leveled by Weinstein and Fantini deals with the "how" of curriculum. The charge of irrelevance in this instance is based on the fact that teaching procedures and learning styles of students are not often optimally matched. Postman and Weingarten (1969), have addressed themselves to this issue in their indictment of what has been called by some (e.g., Cross and Nagle, 1968; Glasman, 1970), the content centered approach which emphasizes materials at the expense of mastery. As a correction for this particular shortcoming, these authors have recommended more individualized programs of study and the use of inquiry teaching methods. In the area of language instruction for Blacks, Baratz (1970), has recommended the use of procedures based on foreign and second language learning techniques to provide more relevant, effective instruction.

A final point considered by Weinstein and Fantini touches on both the "how" and the "by whom" aspects of curriculum. In general terms this particular criticism deals with the disregard of planners and teachers for the learners feelings about his experience. Two specific examples of this disregard are the failure of some educators to deal with current social issues, attitudes and values in the classroom setting, and the failure of some educators to understand and to respect cultural differences. Much of the work of linguists such as Baratz (1970), Labov (1969), and Shuy (1970), has dealt with the cultural implications of teaching standard English to Blacks who speak non-standard English dialects. Hopefully other specialists will come forward to serve a similar function in other curriculum areas.

Although a great deal has been written regarding teacher attitudes toward students in general (e.g., Bacchus, 1969; Glasman, 1970; McCallan, 1966), and the effects of certain of these attitudes of students (e.g., Rosenthal and Jacobsen, 1968), relatively little attention has been devoted to consideration of the extent to which teachers have sufficient knowledge of student concerns to actually create "relevance" in the classroom.

In one of the few studies which provided comparisons of student and teacher interest profiles, Postman and Navran (1970), found some degree of congruence between personality types of teachers and top students as defined by the Edwards Personal Preference Schedule (EPPS) and the Holland Vocational

Preference Inventory (HVPI). In a study more related to the concerns of the present investigation, Bailey and Robertson (1964), collected data from 65 teachers and 1,205 students at the junior high school level. All students were requested to arrange the eight problem areas in rank order from most personal concern to least personal concern. They were also requested to rank the problems from those with which they felt their counselors could be of most personal assistance to least assistance. The teachers were also asked to rank the problem areas as they expected the student would rank his problems and also in a way that reflected the teachers' perception of the counselors' relative helpfulness in the eight areas.

The eight problem areas were as follows: (1) Home-Family Relations: attitudes toward parents, rivalry with brother or sister, etc.; (2) Physical Health and Appearance: eating habits, complexion, etc.; (3) My Personality: feeling of self confidence, day-dreaming, etc.; (4) Vocational and Educational Planning: training beyond high school, etc.; (5) Boy-Girl Relations: going steady, how to date, etc.; (6) Relationship with Teachers: discipline, phasing problems, etc.; (7) School Work: what courses to take, value of certain courses, concern about grades, etc.; (8) Value Concerns and Issues: standard of right and wrong, knowing what to believe in, etc. Their data indicated that on the average, teachers were not perceptive in predicting the students' problems. Bailey and Robertson concluded that "if educational efficiency is predicted upon

teacher-pupil empathy. . . greater precision is to be desired on the part of teachers as they related to their pupils."

The advantages of this greater precision are almost obvious. Spillman (1969), comments that too often student interests have been neglected by both teacher and administrator therefore, adding confusion to the entire teaching and learning process. He further states that in order for students to become responsible for their own actions teachers must stimulate the development of their interests and help them to see clearly worthwhile goals that are acceptable to them. Storlie (1966) further indicates that if teachers could accept and clarify expressions of student interest, they could then begin to organize their own interest in relation to student interests. Although these opinions provide what is probably sound advice, they provide no empirical evidence.

Even less empirical evidence is available regarding parent assessments of student interest. Although parent involvement in educational planning and policy is undoubtedly increasing virtually none of the reports which treat parents concerns, deals systematically or comprehensively with the extent to which parental demands reflect the broader range of student interests. In reporting the results of a Gallup Poll, Fish (1970), indicated that parents are more concerned with discipline than with curriculum, with the development of social attitudes or with overall teaching effectiveness.

Because no investigations have specifically explored parent perception of student interests, the Gallup Poll findings need not be viewed as completely discouraging. If student interests and parent perception of these interests can be clearly delineated and clarified, perhaps parents, students, teachers and administrators can define a common meeting ground upon which to deal with specific curriculum concerns.

CHAPTER III

METHODOLOGY AND PROCEDURES

This chapter describes the development of the survey instrument, the selection of the experimental sample, and the procedures used in administering the survey instrument.

Questionnaire Development

A set of parallel items was developed for purposes of investigating student interest and the ability of teacher and parents to identify these interests accurately. The content of the questionnaire was based on observations of student-teacher interactions in the classroom and on a survey of course offerings at various high schools throughout the country.

The original questionnaire was distributed to fourteen educators, four of whom are currently teaching in the Center for Urban Education at the University of Massachusetts, and ten who are teaching on the secondary level. Each individual was asked to review the questions for purposes of identifying unclear statements and weak or inappropriate questions.

Judges were also asked to categorize questions using the following classifications: general curriculum content, learning/teaching variables, school environment and other. For this phase of the review, each question

was typed on a separate card and presented in a random sequence.

The validity check based on percentage of inter-judge agreement revealed an 85 per cent concensus on most items. Questions which fell below this level were eliminated. The remaining items were used in constructing the questionnaire which was administered to the sample.

The Final Questionnaire

After eliminating items with low face validity, thirty-three items remained. These items were used to construct the parallel questionnaire administered to students and teachers. Items in the two questionnaires differed only in that students were asked for personal evaluations, while teachers were asked to indicate their perception of student reactions.

Because of time constraints, the parent questionnaire consisted of only four items. These items were identical to parallel items in the teacher version of the questionnaire, except that the phrase "your students" was replaced by the phrase "your child." All parent items were based on the three point rating scale format. The four questions included representatives from each of the categories described above.

Following test administration but prior to data analysis, the twelve items comprising the "other" category were eliminated because they dealt with student opinion in areas not directly related to the concerns of the study. One other

item was eliminated because a wording error rendered student-teacher versions not strictly parallel.

The breakdown of the remaining twenty items by category is as follows: six items related to curriculum; five related to learning/teaching variables; and ten related to other aspects of the school environment. Formats used in the twenty items are as follows: eleven rating scale items (e.g., items which required the respondant to select one of three scale alternatives such as "very interested," "somewhat interested," and "not interested"); two items involved multiple choice formats; the remaining seven items were open-ended.

A list of the twenty items treated in the data analysis appears in Appendix A, which also contains instructions.

Pilot Study

The revised questionnaire was administered to a small group of students and teachers in two secondary schools in the San Francisco Unified School District. The major purpose of this pilot run was to identify problems of administration. Very careful attention was also given to time factors, and to student and teacher reactions.

This preliminary study indicated that students were favorably impressed with the comprehensive quality of the questionnaire and that they were anxious to know the results. In most cases, students expressed gratitude at finally being asked their opinions regarding school.

It was also determined in the pilot study there were no administrative problems and time was not a factor.

The Sample

The sample consisted of 50 parents, 73 teachers and 500 students selected randomly from the population representing Polytechnic High School. The student subset of the sample consisted of 75 males and 75 females from each of the -grade levels at the school, grades 10, 11 and 12. The parent sample consisted of 16 parents of eleventh graders and 18 parents of twelfth graders. No sex factor operated in the selection of parents or teachers. Thus, in analyzing data, the sex distinction is made only for students.

Administration of the Questionnaire

The final questionnaires were administered to the sample by the investigator and four persons familiar with the study. Parents were tested individually. In most instances, students were tested in groups which assembled in the school cafeteria. As a rule, teachers were also tested in groups. At the start of test administration, each individual was provided with a pencil and a separate questionnaire which contained printed directions. Directions were reviewed aloud by the tester.

Testing for both student and teacher groups was generally completed within an hour. After administration of the questionnaire, comments were invited.

Data Analysis

With the exception of one question, all items were analyzed using Spearman's rank order correlation coefficient, (Siegel, 1956). For open-ended items, responses were surveyed in order to derive categories for use in classifying responses. After these broader categories had been defined, tabulations were made of the total number of responses falling in each. These totals were used in assigning ranks to the various categories.

For questions based on bi-polar judgment (e.g., yes/no alternatives or more/less alternatives, etc.) of several related topics, the positive pole was assigned a weight of 1, and the negative pole a weight of zero. In essence then, total number of responses in the more positive category determined the rank of the various topics included in the question.

Because the three points on all rating scale items represented very positive, somewhat positive and negative evaluations, weights were assigned as follows: very positive = 2, somewhat positive = 1, negative or no opinion = 0.

A score was computed for each topic included in a particular rating item by multiplying the weight associated with each of the three points on the scale by the number of responses located at that scale point. These numbers were then summed to obtain a total favorability score for the topic. The sums were then converted to ranks which indicated the relative favorability of each topic

covered by the question.

To illustrate the procedures used for items of this type, consider Question 1 which required respondants to indicate the extent to which each of 18 curriculum areas is perceived as helpful. Separate computations were made of the number of "very helpful" responses and the number of "somewhat helpful responses" for English, then for Mathematics, then for Physical Education and so on. For each of the 18 subject matter areas in turn, the number of "very helpful" responses was weighted by a factor of 2, and the number of "somewhat helpful" responses by a factor of 1. (Other response categories were ignored because the zero weight would cancel out their effect.) Using these 18 weighted scores, a rank from 1 (most favorably perceived) to 18 (least favorably perceived) was assigned to each subject area for use in subsequent computations.

The one item which was not analyzed using Spearman's rho required respondants to select one of two alternatives to complete a statement. Comparisons among various subsets of the sample were tested for significant differences by applying Fischer's normal approximation to the binomial for uncorrelated proportions (Guilford, 1965) to proportions of positive responses.

Statistical comparisons reported in Chapter IV are of five basic types. The first type involves contrasts which compare teacher judgements with judgements made by each of the six student subgroups defined by sex and grade level combinations. The second type of comparison involves contrasts between

males and females at each of the three grade levels The third type involves separate comparisons across grades for each sex. All three types of comparisons are made for each question which appears in Appendix A.

For the four questions which constituted the parent questionnaire, two other types of comparisons are also reported. The first involves parent/student contrasts and the second involves parent/teacher contrasts. In these instances only, comparisons which include student judgements are based on data pooled over grade levels and sex.

CHAPTER IV

FINDINGS AND DISCUSSION

This chapter offers an analysis and interpretation of data collected with the questionnaire.

Results of data analyses are reported in three sections, each of which dealt with one of the major categories outlined in Chapter III: curriculum, learning variables, and general environment. Statistics for each question are tabled separately although in some instances, results of two or more items are discussed together.

In order to maximize readability, two reporting conventions have been adopted here. First, values and probability levels associated with various statistical tests have been omitted from the text. These however, do appear in tabular form in this chapter. Second, because of the large number of individual comparisons made for each item (e.g., three comparing males and females within grades, three comparing males across grade levels and three comparing females across grade levels), results of individual comparisons are not generally reported. Instead, broader trends for each segment of the sample (students, teachers and parents) are indicated and exceptions to the trends are noted.

Curriculum

The first two questions dealing with curriculum sampled opinions regarding what the school's main goal should be, and who should define the curriculum through which this goal is accomplished. Question 1 required respondants to complete the sentence: "The most important job of the school is to _____." Table 1 indicates the majority of the students at each grade level agreed that the school's major function is to educate students. Despite the fact that a sizeable number of educators have maintained that the school's primary objective should be to produce responsible citizens, relatively few students supplied answers to Question 1 which were consistent with this view. By and large, teachers predicted this response pattern quite accurately (See Table 2).

In spite of the overlap of ranks shown in Tables 1 and 2, few statistical comparison of ranks yielded significance. However, as inspection of Table 3 will verify values were generally quite high, exceeding .950 in all but four of the 15 comparisons. Thus, it appears that the failure to find significance in spite of reasonably high response correspondence may be an artifact of the small number of categories upon which ranks were based.

Agreement was also substantial on Question 2, which required respondants to indicate which of five groups of individuals is the legitimate source of curriculum definition. As might be expected, students overwhelmingly

TABLE 1

RANK AND RANK ORDER CORRELATION ASSIGNED TO FOUR CATEGORIES PERTAINING TO CURRICULUM AS A FUNCTION OF GRADE AND SEX

	Grade 10		Grade 11		Grade 12	
	M	F	M	F	M	F
a. Educate Students	1	1	1	1	1	1
b. Prepare for future	2	2	2.5	2	2	2
c. Teach students to become responsible citizens	3	4	4	4	4	4
d. Help solve problems	4	3	2.5	3	3	3
	ρ .650		ρ .950		ρ 1.000	

TABLE 2

RANK AND RANK ORDER CORRELATION ASSIGNED TO FOUR CATEGORIES PERTAINING TO CURRICULUM AS A FUNCTION OF TEACHERS

	Teachers
a. Educate students	1
b. Prepare for future	2
c. Teach students to become responsible citizens	4
d. Help solve problems	3

TABLE 3

VALUE OF SPEARMAN'S RANK ORDER CORRELATION OF COEFFICIENT BASED ON COMPARISON OF RANKS ASSIGNED BY TEACHER AND STUDENTS[1]

	M-10	F-10	M=11	F-11	M-12	F-12
Teacher	.800	.950	.950	1.000*	1.000*	1.000*
M-10	X	.650	.650		.800	
F-10		X		.950		.950
M-11			X	.950	.950	
F-11				X		1.000*
M-12					X	1.000*
F-12						X

[1] Cell labels which consists of letter-number codes designate the sex and grade level of students. M-10 for example denotes male tenth grade.

* $P < .05$; N=4

replied that student groups should be responsible for defining school programs. The student/teacher/community grouping was ranked second, with experts third and the community ranked last.

Although teachers did predict a fifth place rank for the community, as comparison of Tables 4 and 5 shows, student/teacher agreement was lacking otherwise. More teachers felt that students would prefer programs selected by students, teachers, and community groups than programs selected exclusively by students. Furthermore, teachers apparently underestimated the extent to which students would be receptive to programs defined by experts relative to those defined by teachers and administrators.

Because of these discrepancies in teacher perception of student opinion, all rank order correlations based on student teacher comparisons fell short of significance (see Table 6). All statistical comparisons among student ranks indicated a significant degree of concurrence.

Questions 3 and 4 dealt with topics which either are or could be included as courses in high school curriculum. Question 3 required respondants to indicate the degree to which each of 18 course offerings is perceived as helpful. Obtained student ranks based on weighted tabulations of the number of responses falling in the two positive response categories appear in Table 7.

With the exception of tenth grade males, all groups of students selected English as the most helpful of the 18 rated courses. Although ranks varied to

TABLE 4

RANK AND RANK ORDER CORRELATION ASSIGNED TO FIVE CATEGORIES PERTAINING TO CURRICULUM AS A FUNCTION OF GRADE AND SEX

	Grade 10		Grade 11		Grade 12	
	M	F	M	F	M	F
a. Experts	3	3	3	3	3	3
b. Teachers/ Admins.	4.5	4	4.5	4	4.5	4.5
c. Students	1	1	1	1	1	1
d. Community	4.5	5	4.5	5	4.5	4.5
e. Student/Teacher/ Community	2	2	2	2	2	2
	ρ .975		ρ .975		ρ 1.0	

TABLE 5

RANK AND RANK ORDER CORRELATION ASSIGNED TO FIVE CATEGORIES PERTAINING TO CURRICULUM AS A FUNCTION OF TEACHERS

	Teachers
a. Experts	4
b. Teachers/Administrators	3
c. Students	2
d. Community	5
e. Students/Teachers/ Community	1

TABLE 6

VALUE OF SPEARMAN'S RANK ORDER CORRELATION OF COEFFICIENT BASED ON COMPARISONS BY RANKS ASSIGNED BY TEACHERS AND STUDENTS[1]

	M-10	F-10	M-11	F-11	M-12	F-12
Teacher	.725	.800	.725	.800	.725	.725
M-10	X	.975*	1.000**		1.000**	
F-10		X		1.000**		.975*
M-11			X	.975*	1.000**	
F-11				X		.975*
M-12					X	1.000*
F-12						X

[1] Cell labels which consists of letter-number codes designate the sex and grade level of students. M-10 for example denots male tenth grade.

* $P < .05$, N=5

** $P < .01$, N=5

some extent over groups, in general mathematics and driver education joined English in obtaining one of the first three ranks. This correspondence of individual patterns was mirrored in rankings based on all student data, for which grade and sex distinctions are disregarded, (see last column of Table 8).

Although all correlations based on comparisons of student subgroups were indicative of high student agreement, assignments of low ranks were somewhat more variable. Ranks based on all student responses indicated that special interest courses (e.g., art, music) fell in the middle range while bookkeeping, industrial arts and stenographic courses were perceived as having the lowest utility. This finding is particularly interesting in view of the fact that those courses which obtained the lowest ranks have the greatest potential for immediate and practical application (excluding courses such as driver education, home-making and swimming). This finding is even more noteworthy given the recent demands of some students for more vocationally relevant programs of study.

Although sex comparisons within grade revealed substantial agreement, sex differences were apparent on certain courses which are typically viewed as being more appropriate for one sex than for the other. Ranks for industrial arts, for example, showed a spread of 8 or 9 points in two of the three grade levels, with lower ranks being based on judgements of females. In contrast, clerical and stenographic, which exhibited a similar range, females, for whom these courses are most often intended, produced the higher ranks.

TABLE 7

RANKS AND RANK ORDER CORRELATION ASSIGNED TO EIGHTEEN CATEGORIES OF SUBJECT MATTER AS A FUNCTION OF GRADE AND SEX

	Grade 10		Grade 11		Grade 12	
	M	F	M	F	M	F
a. English	1	1	3	1	3	1
b. Physical Education	4	4	4	5	4	6
c. History	7	8	8	8	7	7
d. Civics	14	18	13	16	5	5
e. Biology	5	6	6	6	8.5	8
f. Life Science	13	13	12	10	8.5	13
g. Mathematics	2	4	2	2	1	4
h. Basic Math	6	7	7	7	6	3
i. Driver Education	3	2	1	3	2	2
j. Swimming	10	14	9	14	7	12
k. Art	9	11	14	15	11	17
l. Stenographic	17.5	16	18	17	17	16
m. Bookkeeping	15.5	15	16	13	16	14
n. Clerical	17.5	9	5	9	15	10
o. Foreign Language	11.5	12	15	12	14	11
p. Homemaking	15.5	5	10	4	13	9
q. Industrial Arts	8	17	17	18	10	18
r. Music	11.5	10	11	11	12	15
	ρ .681		ρ .551		ρ .753	

TABLE 8

RANK AND RANK ORDER CORRELATION ASSIGNED TO EIGHTEEN CATEGORIES OF SUBJECT MATTER AS A FUNCTION OF TEACHER, PARENTS AND STUDENTS

	Teacher	Parents	Students
a. English	1	1	1
b. Physical Education	13	6.5	4
c. History	14	4.5	7
d. Civics	12	8	10.5
e. Biology	11	4.5	5
f. Life Science	17	3	13
g. Mathematics	6	2	3
h. Basic Math	5	6.5	6
i. Driver Education	3	9	2
j. Swimming	15.5	11	9
k. Art	15.5	14	15
l. Stenographic	4	18	18
m. Bookeeping	7	13	17
n. Clerical	2	16	16
o. Foreign Language	18	10	12
p. Homemaking	9	15	10.5
q. Industrial Arts	8	17	14
r. Music	10	12	8

ρ (teachers vs community) = -.111 ρ (Community vs students) = .753

In attempting to reflect student opinions regarding the usefulness of various courses, teachers did quite poorly except in predicting the highest rank for English and a high rank (3) for driver education, (see Table 8). In general, teachers underestimated the extent to which students would perceive traditional academic or college preparatory classes (e.g., history, biology and foreign language) as useful. Furthermore, teachers over-rated the usefulness of the more vocationally oriented courses.

Like students, parents also ranked English first and placed mathematics in one of the top three categories. Although parent/student response patterns differed in details, parents generally rated academic courses higher than special interest courses which, in turn, they rated higher than vocational courses. Because this general trend was also apparent in the combined student data, the student/parent comparison resulted in statistical significance while the student/teacher and the teacher/parent comparisons did not. Values of rho for all comparisons are shown in Table 9.

In general, agreement was lower on the question dealing with more timely, less traditional topics of study. As student ranks in Table 10 indicate, the first three were assigned exclusively to rock and popular music, voting rights for teenagers, and career opportunities. The combined student data (see Table 11) reflects these ratings. Although the six individual student ratings showed wide variability in terms of areas in which students were least interested,

TABLE 9

VALUES OF SPEARMAN'S RANK ORDER CORRELATION OF COEFFICIENT BASED ON COMPARISONS OF RANKS ASSIGNED BY TEACHERS, PARENTS AND STUDENTS[1]

	Parents	M-10	F-10	M-11	F-11	M-12	F-12
Teachers	-.111	.116	.360	.150	.330	.134	.332
Students	.753**						
M-10		X	.681**	.939**		.844**	
F-10			X		.959**		.712*
M-11				X	.551*	.837**	
F-11					X		.684**
M-12						X	.753**
F-12							X

[1]Cell labels which consist of letter-number codes designate the sex and grade level of students. M-10 for example denotes male tenth grade.

* $P < .05$; N=18
** $P < .01$; N=18

TABLE 10

RANK AND RANK ORDER CORRELATION ASSIGNED TO FOURTEEN TOPICS AS A FUNCTION OF GRADE AND SEX

	Grade 10		Grade 11		Grade 12	
	M	F	M	F	M	F
a. Politics and Political Leaders	12	14	12	12	9	14
b. Protest Movements	8	13	7	9	6	12
c. Student Unrest	7	10	8	13	11	13
d. Interracial Dating	13	12	14	11	13	10
e. War and the Draft	11	7	5	7	4	8
f. Teenage Marriage	10	8	13	8	14	7
g. Rock and Popular Music	1	3	2	2	1.5	3
h. Voting Rights for Teenagers	3	2	3	3	3	2
i. Integration	9	5.5	6	4	10	4
j. Use of Drugs	5	5.5	9.5	6	7.5	9
k. Veneral Disease	6	4	9.5	10	12	5.5
l. Pollution	4	9	4	5	5	5.5
m. Ethnic Studies	14	11	11	14	7.5	11
n. Career Opportunities	2	1	1	1	1.5	1
	ρ .746		ρ .795		ρ .465	

the lowest rank was assigned to ethnic studies, to interracial dating, or to politics and political leaders. These three topics emerged as twelfth, thirteenth and fourteenth, respectively, in the combined data.

While all student comparisons resulted in significant values of rho despite the variability apparent in Table 11, none of the comparisons involving teachers achieved significance. Although teachers did rate popular music as having high student appeal, they attributed too much importance to drugs and student unrest and too little importance to topics such as teen voting rights and career opportunities. Parents did somewhat better than teachers, predicting that topics related to career opportunities, drugs and politics would be rated most positively. A comparison of teacher, parent, and student data in Table 11 indicates the extent of discrepancies in teacher and parent perception of student interest. The generally low correlations which are shown in Table 12 also reflect these discrepancies.

Questions 5 and 6, the last two in the set dealing with curriculum, surveyed opinions regarding sex education. Table 13 contains the proportions used in computing Fisher's Z test for each of the nine student comparisons and the six teacher comparisons for Question 5. As these entries indicate, the general consensus of students and teachers was that sex education should be taught in school. No significant differences in proportion were noted using a 2 tailed test.

TABLE 11

RANK AND RANK ORDER CORRELATION ASSIGNED TO FOURTEEN TOPICS AS A FUNCTION OF TEACHERS, PARENTS AND STUDENTS

	Teacher	Parents	Students
a. Politics and Political Leaders	14	3	14
b. Protest Movements	5.5	11	9
c. Student Unrest	3	10	11
d. Interracial Dating	10	13	13
e. War and the Draft	5.5	8	5
f. Teenage Marriage	5.5	14	10
g. Rock and Popular Music	1	9	1
h. Voting Rights for Teenagers	12	5	2
i. Integration	11	4	6
j. Use of Drugs	2	1.5	7
k. Veneral Disease	8	6.5	8
l. Pollution	13	12	4
m. Ethnic Studies	9	6.5	12
n. Career Opportunities	5.5	1.5	3

ρ (teachers vs community = .045 ρ (Community vs students = .21

TABLE 12

VALUES OF SPEARMAN'S RANK ORDER CORRELATION OF COEFFICIENT BASED ON COMPARISONS OF RANKS ASSIGNED BY TEACHERS

	Parents	M-10	F-10	M-11	F-11	M-12	F-12
Teachers	-.045	.336	.296	.177	.152	.157	.034
Students	.215						
M-10		X	.746	.777**		.596*	
F-10			X		.790**		.859**
M-11				X	.795**	.864**	
F-11					X		.876**
M-12						X	.465*
F-12							X

[1]Cell labels which consists of letter-number codes designate the sex and grade level of students. M-10, for example denotes male tenth grade.

*P<.05, N=14
**P<.01, N=14

TABLE 13

FREQUENCY AND PROPORTION OF POSITIVE RESPONSE TO QUESTION FIVE MADE BY TEACHERS AND THE SIX STUDENT SUBGROUPS

Teachers	M-10	F-10	M-11	F-11	M-12	F-12
62	75	68	70	68	68	83
67	81	73	81	72	73	91
.925	.926	.923	.864*	.944*	.932	.925

[1] Porportion of yes responses.

*The comparison of male and female 11th graderswould have achieved significance at the .05 level had a one tailed test been used. The absolute value of $\geq$ for this comparison was 1.778.

Differences were noted, however, on Question 6, which required respondants to indicate which specific topics should have priority in a sex education class. Students responses, which exhibited a significant degree of congruence (see values in Table 16), indicated that discussion of birth control and venereal disease would be most helpful. Although pregnancy received as many 4 ranks as 3 ranks over groups, for combined student responses summed over sex and grade, this topic was placed third.

Teachers predicted student response patterns fairly accurately only for twelfth grade females. Otherwise, as is clear in comparing data in Tables 14 and 15, their judgements reflected too little student concern with sexual techniques and child care. Teacher judgement did, however, single out contraceptives and venereal disease as high priority items for students. Perhaps the inclusion of contraceptives and birth control as separate topics led to some degree of confusion on the part of student and/or teacher respondants. This factor may have contributed to the lowered correlation, as student ranks on the two items were spread over a substantially wider range than were teacher ranks.

Learning Variables

The first item dealing with learning variables, Question 7, required respondants to indicate whether teaching could be improved by having more or

TABLE 14

RANK AND RANK ORDER CORRELATION ASSIGNED TO EIGHT TOPICS AS A FUNCTION OF GRADE AND SEX

	Grade 10		Grade 11		Grade 12	
	M	F	M	F	M	F
a. Contraceptives	7	8	6.5	7	8	5.5
b. Birth Control	1	2	3	1	2	2
c. Veneral disease	2	1	1	2	1	1
d. Abortions	6	6	8	8	7	7
e. Dating & Marriage	8	7	6.5	3	6	5.5
f. Pregnancy	4	3	4	4	3	3
g. Child care	3	4	2	5	4	4
h. Sexual techniques	5	5	5	6	5	8
	ρ .929		ρ .673		ρ .816	

TABLE 15

RANK AND RANK ORDER CORRELATION ASSIGNED TO EIGHT TOPICS AS A FUNCTION OF TEACHERS

	Teachers
a. Contraceptives	2
b. Birth control	4
c. Veneral disease	1
d. Abortions	6
e. Dating and Marriage	5
f. Pregnancy	3
g. Child care	7
h. Sexual techniques	8

TABLE 16

VALUES OF SPEARMAN'S RANK ORDER CORRELATION OF COEFFICIENT BASED ON COMPARISONS OF RANKS ASSIGNED BY TEACHERS AND STUDENTS[1]

	M-10	F-10	M-11	F-11	M-12	F-12
Teacher	.167	.262	.256	.381	.286	.685*
M-10	X	.929**	.852**		.881**	
F-10		X		.727*		.780*
M-11			X	.673*	.887**	
F-11				X		.792*
M-12					X	.816*
F-12						X

[1]Cell labels which consists of letter-number codes designate the sex and grade level of students. M-10 for example denotes male tenth grade.

*P < .05, N=8
**P < .01, N=8

less emphasis placed on a number of fairly general activities which would be appropriate to a variety of courses. Student ranks shown in Table 17 indicate that only field trips received a sufficient number of "more" responses to obtain the highest rank in three of the six student groups. However, in terms of the average rating over classes, students seemed to feel that increasing class discussion would improve courses more than any other type of change. The least desirable change, according to students, would be to increase homework.

Because ratings for most topics other than homework were fairly variable over classes, only two of the nine indices of student agreement achieved statistical significance. Neither did correlations which contrasted student and teacher responses achieve significance (see Table 19). Teachers did, however, correctly rate independent study and homework as the fifth and sixth alternatives. Their top rating of more individual attention and their fairly low rating of class discussion contributed to the low correlations (see Tables 18 and 19).

Question 8 required judgements of the degree to which students enjoy learning by engaging in each of 12 activities. In each of the six student groups (see Table 20), taking field trips was rated as the most enjoyable activity, a finding which is consistent with the high rating of this activity on question 7. Although other ranks varied over groups, reading books was the second or third choice in all cases except for tenth grade males. Activities receiving the lowest ratings were listening to speeches, watching demonstrations, and doing library research.

TABLE 17

RANK AND RANK ORDER CORRELATION ASSIGNED TO SIX TOPICS PERTAINING TO LEARNING VARIABLES AS A FUNCTION OF GRADE AND SEX

	Grade 10		Grade 11		Grade 12	
	M	F	M	F	M	F
a. More independent study	5	4.5	5	3.5	6	5
b. More class discussion	2	2	1	2	1	3.5
c. More field trips	1	1	3	1	5	3.5
d. More individual attention	3	3	2	3.5	4	2
e. More homework	6	6	6	6	3	6
f. More timely or current subject matter	4	4.5	4	5	2	1
	ρ .985		ρ .707		ρ .328	

TABLE 18

RANK AND RANK ORDER CORRELATION ASSIGNED TO SIX TOPICS PERTAINING AS A FUNCTION OF THE TEACHER

		Teachers
a.	More independent study	5
b.	More class discussion	4
c.	More field trips	2
d.	More individual attention	1
e.	More homework	6
f.	More timely or current subject matter	3

TABLE 19

VALUES OF SPEARMAN'S RANK ORDER CORRELATION OF COEFFICIENT BASED ON COMPARISONS OF RANKS ASSIGNED BY TEACHERS AND STUDENTS[1]

	M-10	F-10	M-11	F-11	M-12	F-12
Teacher	.714	.671	.657	.500	-086	.785
M-10	X	.985**	.828		.085	
F-10		X		.957**		.371
M-11			X	.707	.371	
F-11				X		.171
M-12					X	.328
F-12						X

[1]Cell labels which consists of letter-number codes designate the sex and grade level of students. M-10, for example denotes male tenth graders.

*P < .05, N=6
**P < .01, N=6

TABLE 20

RANK AND RANK ORDER CORRELATION ASSIGNED TO TWELVE TOPICS PERTAINING TO WAYS OF LEARNING AS A FUNCTION OF GRADE AND SEX

	Grade 10		Grade 11		Grade 12	
	M	F	M	F	M	F
a. Reading books	8	3	3	3	3	2
b. Reading magazines	6	4	4.5	6	5	4
c. Participating in discussions	7	7.5	2	4	2	5
d. Doing library research	11	11	12	11	12	12
e. Doing experiments	3	6	6	7	6	6
f. Using films and filmstrips	2	7.5	7	8	7	7
g. Using tape recorders	5	5	8	9	8	8
h. Taking field trips	1	1	1	1	1	1
i. Watching television	4	2	4.5	2	4	3
j. Working with student learners	9	9	10	5	10.5	9
k. Watching demonstrations	10	10	9	10	10.5	10
l. Listening to speeches	2	2	11	12	9	11
	ρ .747		ρ .848		ρ .942	

In spite of the variability among groups, ratings were substantially consistent, as indicated by correlations presented in Table 22. However, because of this within group variability, ranks based on pooled data exhibited a somewhat different pattern. Although field trips remained first, watching television emerged second, and reading books and magazines emerged third, and fourth, respectively. These data appear in Table 21 along with teacher and parent ratings.

Ratings in Table 21 show that teacher judgements regarding field trips and television were essentially correct. The low ratings of library research and listening to speeches were also consistent with student trends noted above. Teachers did, however, underrate student preference for reading, as indicated by the 10 and 7 ranks assigned to reading books and reading magazines, respectively. It is worth noting that these activities did receive low ratings from tenth grade males. All comparisons of student and teacher agreement were significant (see Table 22).

Although student/parent comparisons also resulted in statistical significance, parent ratings of items ranked first and second by students were off by three or four steps. Agreement was closer, however, for reading activities, library research, watching demonstrations, and listening to speeches (see Table 21). Agreement between parent and teacher ratings was sufficiently low to result in a non-significant correlation.

TABLE 21

RANK AND RANK ORDER CORRELATION ASSIGNED TO TWELVE TOPICS PERTAINING TO WAYS OF LEARNING AS A FUNCTION OF TEACHER, PARENTS AND STUDENTS

	Teachers	Parents	Students
a. Reading Books	10	2	3
b. Reading magazines	7	5	4
c. Participating in discussions	3	1	5
d. Doing library research	11	10	11
e. Doing experiments	8	3	6
f. Using films and filmstrips	5	6	9
g. Using tape recorders	4	7	7
h. Taking field trips	1	4	1
i. Watching television	2	8	2
j. Working with student learners	9	11	8
k. Watching demonstrations	6	9	10
l. Listening to speeches	12	12	12

ρ (Teachers to community) = .412 ρ (Community to students) = .677

TABLE 22

VALUES OF SPEARMAN'S RANK ORDER CORRELATION OF COEFFICIENT BASED ON COMPARISONS OF RANKS ASSIGNED BY TEACHERS, STUDENTS AND PARENTS[1]

	Parents	Teachers	M-10	F-10	M-11	F-11	M-12	F-12
Teachers	.412	X	.735**	.632*	.774**	.728**	.600*	.556*
Students	.677*							
M-10			X	.747**	.653**		.628*	
F-10				X		.827**		.932**
M-11					X	.848**	.976**	
F-11						X		.902**
M-12							X	.942**
F-12								X

[1]Cell labels which consist of letter-number codes designate the sex and grade level of students. M=10 for example denotes male tenth graders.

*$P < .05$; N=12
**$P < .01$; N=12

The next two questions required respondants to rate the degree to which students feel comfortable when engaged in certain learning activities (Question 9), and the extent to which students feel the need to improve skills related to these and other activities (Question 10). The ratings for Question 9, which appear in Table 23, indicate that student groups differed considerably in their designation of the top three activities. This factor may account in part for the fact that three of the nine student comparisons were insignificant (see Table 25). Although only eleventh graders ranked reading as the activity with which they felt most relaxed, reading emerged as first choice in the pooled data. Listening and playing, which received the highest rank when not assigned to reading, placed second and third in the combined data. Searching for information and reciting placed lowest in all individual rankings, and therefore, in combined data as well.

The ratings which appear in Table 24 show that teachers viewed playing as the activity with which students would feel most comfortable. Listening was ranked next highest, with writing and recitation ranked lowest. Although the ranks for listening and recitation were not too dissimilar to those assigned by students, ranks for reading and writing were considerably lower than those based on student responses. These and other differences contributed to the low correlations shown in Table 25.

In comparison to ratings of relaxation felt in performing certain tasks,

TABLE 23

RANK AND RANK ORDER CORRELATION ASSIGNED TO SEVEN ACTIVITIES AS A FUNCTION OF GRADE AND SEX

	Grade 10		Grade 11		Grade 12	
	M	F	M	F	M	F
a. Reading	2	3	1	1	3	2
b. Writing	4	2	3	3	1.5	3
c. Listening	1	4	4.5	4	1.5	1
d. Reciting	7	7	7	7	7	7
e. Playing	3	1	2	2	4	4
f. Searching for information	6	6	6	6	6	5
g. In discussions	5	5	4.5	5	5	6
	ρ .679		ρ .991		ρ .912	

TABLE 24

RANK AND RANK ORDER CORRELATION ASSIGNED TO SEVEN ACTIVITIES AS A FUNCTION OF TEACHERS

	Teachers
a. Reading	4
b. Writing	6
c. Listening	2
d. Reciting	7
e. Playing	1
f. Searching for information	5
g. In discussions	3

TABLE 25

VALUES OF SPEARMAN'S RANK ORDER CORRELATION OF COEFFICIENT BASED ON COMPARISONS OF RANKS ASSIGNED BY TEACHERS AND STUDENTS[1]

	M-10	F-10	M-11	F-11	M-12	F.-12
Teachers	.679	.536	.492	.500	.367	.429
M-10	X	.679	.724*		.849*	
F-10		X		.893**		.608
M-11			X	.991**	.652	
F-11				X		.715*
M-12					X	.912**
F-12						X

[1]Cell labels which consist of letter-number codes designate the sex and grade level of students. M-10 for example denotes male tenth graders.

*P $<$ .05; N=7
**P $<$ .01; N=7

yes/no judgements regarding skills which are important for improving school work showed somewhat greater consistency over student groups. The data in Table 26 show that study skills ranked first in all cases except for tenth graders, whose responses suggested that improvements are needed in speaking and writing skills more than in study skills. Improving library skills ranked last in the five of the six groups. Although ranks were somewhat more variable otherwise, all except two comparisons among student response patterns were statistically significant (see Table 28).

In contrast, teacher/student correlations were significant in only two of six instances. Teacher ratings indicated that students feel the greatest need to improve reading and writing skills, and the least need to improve library skills. Although the latter prediction was supported, other aspects of the teacher response pattern shown in Table 27 were contrary to the pattern displayed by students.

Comparisons of responses to Questions 9 and 10 suggest that these two items may be viewed to some extent as indices of student confidence in various skill areas. The five activities and associated skills which relate Questions 9 and 10 are shown below. The labels high, low and moderate given in parentheses indicate the standing of each topic relative to other topics included in this list as well as to the topics included in Questions 9 and 10.

TABLE 26

RANK AND RANK ORDER CORRELATION ASSIGNED TO SEVEN ACTIVITIES AS A FUNCTION OF GRADE AND SEX

	Grade 10		Grade 11		Grade 12	
	M	F	M	F	M	F
a. Improving study skills	2	2	1	1	1	1
b. Improving research skills	5	7	4	6	5	6
c. Improving library skills	7	6	7	7	7	7
d. Improving reading skills	1	3	2	4.5	3	2.5
e. Improving writing skills	4	4.5	5	4.5	4	2.5
f. Improving listening skills	6	4.5	6	3	6	5
g. Improving speaking skills	3	1	3	2	2	4
	ρ .723		ρ .634		ρ .848	

TABLE 27

RANK AND RANK ORDER CORRELATION ASSIGNED TO SEVEN ACTIVITIES AS A FUNCTION OF TEACHERS

	Teachers
a. Improving study skills	4
b. Improving research skills	6
c. Improving library skills	7
d. Improving reading skills	2
e. Improving writing skills	1
f. Improving listening skills	5
g. Improving speaking skills	3

TABLE 28

VALUES OF SPEARMAN'S RANK ORDER CORRELATION OF COEFFICIENT BASED ON COMPARISONS OF RANKS ASSIGNED BY TEACHERS AND STUDENTS[1]

	M-10	F-10	M-11	F-11	M-12	F-12
Teachers	.714*	.580	.464	.419	.607	.776*
M-10	X	.723*	.928**		.892*	
F-10		X		.794**		.830*
M-11			X	.634	.928**	
F-11				X		.714*
M-12					X	.848*
F-12						X

[1]Cell labels which consist of letter-number codes designate the sex and grade level of students. M-10 for example denotes male tenth graders.

*P < .05; N=7
**P < .01; N=7

Activities (Question 9)	Skills (Question 10)
Searching for information (low)	Library Skills (low)
Discussion, Recitation (low)	Speaking (high)
Reading (moderate)	Reading (moderate)
Writing (moderate)	Writing (moderate)
Listening (high)	Listening (low)

Discussion and recitation were rated among the lowest three alternatives on the scale which attempted to tap the degree of comfort associated with various activities. Speaking skills, which are required for successful discussion and recitation, were rated as needing more improvement than the other skills listed above. Listening, which students rated as the most comfortable of the five general areas which are common to both questions, was rated as least in need improvement. Relative to the other four areas of overlap, reading and writing received moderate ratings on both items 9 and 10. In contrast to the above pattern, which suggests an inverse relation between comfortableness of an activity and the need to improve skills which are related to that activity, the information/library topic was rated low on both scales.

Question 11 was designed to determine how useful students find each of a number of sources of information. In all cases, students ranked books as

most helpful. As Table 29 indicates, all other ranks were widely distributed among topics. Although newspapers received the greatest number of 2 and 3 ranks over groups, the data for all students combined resulted in parents being ranked second. Surprisingly perhaps, pooled data also showed low ranks for television (seventh), teachers (sixth), and friends (ninth of nine). Trends based on pooled data are described here because only five of nine comparisons between students were significant.

Teacher and student responses were sufficiently dissimilar to result in negative correlations on all six comparison (see Table 31). As is clearly apparent in response patterns presented in Table 30, teachers grossly underestimated the degree to which students find formal resources such as books and newspapers helpful. Furthermore, they underestimated the usefulness of parents as sources of information and overestimated the usefulness of television and teachers, which they ranked first and second, respectively.

General Environment

Questions 12 and 13 were completion items which were aimed at identifying the most positive and the most negative aspects of the school environment for students. Responses to these questions were classified into several fairly broad categories in order to facilitate data analysis and discussion of results. Appendices B_1, B_2 contain more detailed information

TABLE 29

RANK AND RANK ORDER CORRELATION ASSIGNED TO NINE TOPICS AS A FUNCTION OF GRADE AND SEX

	Grade 10		Grade 11		Grade 12	
	M	F	M	F	M	F
a. Teachers	4	8	2	9	6	9
b. Friends	8.5	9	8	7	8	4
c. Parents	2	2	4	5.5	5	2
d. Televisions	6.5	4	9	5.5	3	7.5
e. Radio	6.5	5	6	5.5	7	7.5
f. Newspapers	3	3	3	2	2	3
g. Books	1	1	1	1	1	1
h. Paperback books	8.5	6	7	8	9	6
i. Magazines	5	7	5	3	4	5
	ρ .625		ρ .411		ρ .521	

TABLE 30

RANK AND RANK ORDER CORRELATION ASSIGNED TO NINE SOURCES AS A FUNCTION OF TEACHERS

	Teachers
a. Teachers	2
b. Friends	3
c. Parents	9
d. Television	1
e. Radio	4
f. Newspapers	7
g. Books	8
h. Paperback books	5.5
i. Magazines	5.5

TABLE 31

VALUES OF SPEARMAN'S RANK ORDER CORRELATION OF COEFFICIENT BASED ON COMPARISONS OF RANKS ASSIGNED BY TEACHERS AND STUDENTS[1]

	M-10	F-10	M-11	F-11	M-12	F-12
Teachers	-.617'	-.848'	-.546	-.485	-.321	-.825'
M-10	X	.625*	.859**		.767*	
F-10		X		.661*		.596
M-11			X	.411	.500	
F-11				X		.682*
M+12					X	.521
F-12						X

[1]Cell labels which consist of letter-number codes designate the sex and grade level of students. M=10 for example denotes male tenth graders.

'Significant at or beyond .05 level, in a one-tailed test using a negative rejection region.

*P $<$ .05; N=9
**P $<$ .01; N=9

regarding the nature of responses which fell in each of the categories reported in the following pages.

Student data for Question 12 are reported in Table 32. It is interesting to note that classes obtained fairly high ratings over groups and that this factor was listed as most positive by the greatest number of students overall. It is also encouraging to note that people and teachers ranked second and third, respectively. Less encouraging, was the relatively low frequency with which special programs were mentioned as the most liked feature.

Teacher rankings for Question 12, which appear in Table 33, suggest that teachers either underestimated the number of students who view them positively, or, as results of Question 13 indicate, responded on the basis of their perception of the majority opinion. While teachers predicted that student reaction to them would be primarily negative, student responses resulted in teachers being ranked as the third most positive factors in the school environment.

As Appendix B shows, only one teacher indicated that students would perceive teachers as the most positive factor in the school environment. Teachers did select people fairly often in response to Question 12 and special programs quite infrequently, thereby, reflecting to some extent, trends noted in student data. In general however, teacher/student agreement was fairly low, though not appreciably lower than agreement among classes of students (see Table 34).

TABLE 32

RANK AND RANK ORDER CORRELATION ASSIGNED TO SIX CATEGORIES PERTAINING TO GENERAL ENVIRONMENT AS A FUNCTION OF GRADE AND SEX

	Grade 10		Grade 11		Grade 12	
	M	F	M	F	M	F
a. Teachers	3	2	2	4	3	2
b. Freedom	5	1	1	2	1.5	5.5
c. Extra-curricular	4	6	6	5	5	4
d. Classes	1	3	3	1	1.5	3
e. People	2	4	4	3	4	1
f. Special Programs	6	5	5	6	6	5.5
	ρ .142		ρ .657		ρ .185	

TABLE 33

RANK AND RANK ORDER CORRELATION ASSIGNED TO SIX CATEGORIES PERTAINING TO GENERAL ENVIRONMENT AS A FUNCTION OF TEACHERS

	Teachers
a. Teachers	6
b. Freedom	2
c. Extra-Curricular	4
d. Classes	3
e. People	1
f. Special programs	5

TABLE 34

VALUES OF SPEARMAN'S RANK ORDER CORRELATION OF COEFFICIENT BASED ON COMPARISONS OF RANKS ASSIGNED BY TEACHERS AND STUDENTS[1]

	M-10	F-10	M-11	F-11	M-12	F-12
Teachers	.314	.142	.200	.600	.357	.185
M-10	X	.142	.142		.500	
F-10		X		.657		.042
M-11			X	.657	.842*	
F-11				X		.271
M-12					X	.157
F-12						X

[1]Cell labels which consist of letter-number codes designate the sex and grade level of students. M-10 for example denotes male tenth graders.

*P < .05; N=6
**P < .01; N=6

On the question regarding disliked aspects of the school situation, student agreement was much higher than on the question pertaining to liked features of the environment. Teachers were listed in response to Question 13 more often than any other single factor. Administrators and discipline were also mentioned with high frequency. As Table 35 shows, only eleventh grade males listed any other alternative more frequently. In general, administrators and discipline were also mentioned with fairly high frequency. Classes and people ranked low on the negative scale indicating that relatively few students supplied these answers.

Again, teacher and student response patterns showed little statistical correspondence (see Values of rho in Table 37). Teachers misjudged affect associated with classes. In addition, too few teachers indicated student dislike for teachers and administrators. However, ranks for food, attitudes and people were quite close to those based on student responses.

Because of the fact that Question 12 required listings of positive factors, while Question 13 required listing of negative factors, the overlap of categories upon which ratings are based is small. It is worth noting however, that teachers, other people, and classes appeared as categories for both questions. Interestingly, in the combined data, teachers ranked as the third most liked aspect of the school as well as the most disliked aspect. However, as the frequency data in the Appendix Section shows, more students viewed teachers as

TABLE 35

RANK AND RANK ORDER CORRELATION ASSIGNED TO EIGHT CATEGORIES PERTAINING TO GENERAL ENVIRONMENT AS A FUNCTION OF GRADE AND SEX

	Grade 10		Grade 11		Grade 12	
	M	F	M	F	M	F
a. Teachers	1	1	2	1	1	1
b. Administrators	2	2	3.5	6.5	4	5
c. Physical Plant	5	6.5	1	5	7.5	7.5
d. Attitudes	4	4.5	3.5	2	3	3
e. People	8	6.5	6	8	5	7.5
f. Classes	6	4.5	7	6.5	6	5
g. Food	7	8	8	4	7.5	5
h. Discipline	3	3	5	3	2	2
	ρ .904		ρ .375		ρ .827	

TABLE 36

RANK AND RANK ORDER CORRELATION ASSIGNED TO EIGHT CATEGORIES PERTAINING TO GENERAL ENVIRONMENT AS A FUNCTION OF TEACHERS

	Teachers
a. Teachers	4
b. Administrators	7
c. Physical plant	2.5
d. Attitudes	2.5
e. People	8
f. Classes	1
g. Food	6
h. Discipline	5

TABLE 37

VALUES OF SPEARMAN'S RANK ORDER CORRELATION OF COEFFICIENT BASED ON COMPARISONS OF RANKS ASSIGNED BY TEACHERS AND STUDENTS[1]

	M-10	F-10	M-11	F-11	M-12	F-12
Teachers	.137	.089	.375	,357	-.094	.232
M-10	X	.904**	.648*		.744*	
F-10		X		.392		.720**
M-11			X	.375	.345	
F-11				X		.753*
M-12					X	.827*
F-12						X

[1]Cell labels which consist of letter-number codes designate the sex and grade level of students. M-10 for example denotes male tenth graders.

*P $<$ .05; N= 8
**P $<$ .01; N= 8

negative factors than as positive factors. In contrast, people, and classes were more often listed as favorable aspects of the school.

Questions 14 and 15 dealt with positive and negative characteristics of teachers. As is indicated by the scattering of ranks over topics shown in Table 38, students showed substantial disagreement with regard to the most positive attribute of teachers. This disagreement is reflected by the very low and sometimes negative correlations between student ranks shown in Table 40. Pooling over sex and grade level, the item "The one thing I like most about my teachers is _____" was responded to most frequently with the answer "nothing." The least frequent response fell in the categories helpful and dedicated.

Student/teacher correlations were generally low and/or negative (see Table 40). The greatest number of teachers felt that students would list concern as the most positive characteristic. Only two teachers predicted the response "nothing." Other details of teacher rankings are presented in Table 39.

On negative teacher traits, low student agreement was again apparent, particularly for topics with the higher ranks (see Table 41). Overall, lack of concern and boring lectures were listed most frequently as the most disliked teacher characteristics. Responses falling in the categories phoney and prejudice occurred least often.

The most frequent teacher response to Question 15 fell in the categories lack of concern, phoney, and lack of understanding (see Table 42). Only one

TABLE 38

RANK AND RANK ORDER CORRELATION ASSIGNED TO FIVE CATEGORIES PERTAINING TO GENERAL ENVIRONMENT AS A FUNCTION OF GRADE AND SEX

	Grade 10		Grade 11		Grade 12	
	M	F	M	F	M	F
a. Friendly	2	3	1	3	3	1.5
b. Dedicated	3.5	2	5	5	3.5	4
c. Helpful	5	5	3.5	1	2	3
d. Concern	1	4	3.5	4	1	1
e. Nothing	3.5	1	2	2	3.5	5
	ρ .075		ρ .475		ρ -.488	

TABLE 39

RANK AND RANK ORDER CORRELATION ASSIGNED TO FIVE CATEGORIES PERTAINING TO GENERAL ENVIRONMENT AS A FUNCTION OF TEACHERS

	Grade 1	Teachers
a.	Friendly	2
b.	Dedicated	4
c.	Helpful	3
d.	Concern	1
e.	Nothing	5

TABLE 40

VALUES OF SPEARMAN'S RANK ORDER CORRELATION OF COEFFICIENT BASED ON COMPARISONS OF RANKS ASSIGNED BY TEACHERS AND STUDENTS[1]

	M-10	F-10	M-11	F-11	M-12	F-12
Teachers	.637	-.700	.250	-.200	.287	.575
M-10	X	.075	.300		.087	
F-10		X		-.300		.175
M-11			X	.475	-.388	
F-11				X		-.325
M-12					X	-.488
F-12						X

[1] Cell labels which consist of letter-number codes designate the sex and grade level of students. M-10 for example denotes male tenth graders.

*P $<$ .05; N=5
**P $<$ .01; N=5

TABLE 41

RANK AND RANK ORDER CORRELATION ASSIGNED TO EIGHT CATEGORIES PERTAINING TO GENERAL ENVIRONMENT AS A FUNCTION OF GRADE AND SEX

	Grade 10		Grade 11		Grade 12	
	M	F	M	F	M	F
a. Boring lectures	1	5.5	3.5	2	2	1
b. Lack of understanding	5	5.5	1	5.5	4	4.5
c. Lack of concern	3	3	2	1	2	3
d. Prejudice	6	4	8	7.5	8	7.5
e. Irrelevant	2	1	5	4	5	2
f. Too strict	7	2	6	3	7	6
g. Too phoney	8	8	7	7.5	2	7.5
h. Not qualified	4	7	3.5	5.5	6	4.5

TABLE 42

RANK AND RANK ORDER CORRELATION ASSIGNED TO EIGHT CATEGORIES PERTAINING TO GENERAL ENVIRONMENT AS A FUNCTION OF TEACHERS

	Teachers
a. Boring lectures	6
b. Lack of understanding	1
c. Lack of concern	2.5
d. Prejudice	5
e. Irrelevant	7.5
f. Too strict	4
g. Too phoney	2.5
h. Not qualified	7.5

TABLE 43

VALUES OF SPEARMAN'S RANK ORDER CORRELATION OF COEFFICIENT BASED ON COMPARISONS OF RANKS ASSIGNED BY TEACHERS AND STUDENTS[1]

	M-10	F-10	M-11	F-11	M-12	F-12
Teachers	-.477	-.173	.262	-.012	.381	-.378
M-10	X	.291	.541		.333	
F-10		X		.512		.321
M-11			X	.512	.482	
F-11				X		.762*
M-12					X	.464
F-12						X

[1]Cell labels which consist of letter-number codes designate the sex and grade level of students. M-10 for example denotes male tenth graders.

*P $<$.05; N=8
**P $<$.01; N=8

teacher, however, indicated that boring lectures would be singled out by students. In general, teachers failed to adequately predict response trends of any one group of students. Predictions based on overall trends noted above were somewhat more accurate, though not particularly so.

Question 16 required respondants to indicate how helpful students with a drug problem would find various types of professionals and personal contacts. Although this question does not deal specifically with the school environment, it does provide information which suggests the extent to which students would confide in certain school personnel when faced with a very serious problem.

On this particular question, student responses were highly similar both over grade levels and between sexes within grades. Table 44, in which ranks are reported, indicates that for the most part, parents, friends and relatives were perceived as most helpful, with school personnel (i.e., counselors, teachers, school nurse, dean of students and principal) achieving the lowest ranks (excluding policeman, which was ranked eighth overall).

Teacher responses bore a significant relationship only to the responses of tenth grade males (see Table 46). The biggest discrepancy in prediction was on the parents item, which was ranked eighth by teachers. Other notable discrepancies apparent in teacher rankings (Table 45) are the high rank for teachers (second) and the school nurse (third).

TABLE 44

RANK AND RANK ORDER CORRELATION ASSIGNED TO TEN SOURCES AS A FUNCTION OF GRADE AND SEX

	Grade 10		Grade 11		Grade 12	
	M	F	M	F	M	F
a. Parents	2	1	1	1	1	2
b. School counselors	7	7	6	6	5	7
c. Policeman	10	8	8	8	8	8
d. Teachers	6	6	4	4	6	5
e. Friends	1	2	2	2	2	1
f. Relatives/Parents	3.5	3	3	3	3	3
g. Social worker	5	5	5	5	4	4
h. School nurse	3.5	4	7	7	7	6
i. Dean of students	8	9	9	9	9	9
j. Principal	9	10	10	10	10	10
	ρ .948		ρ 1.000		ρ .952	

TABLE 45

RANK AND RANK ORDER CORRELATION ASSIGNED TO TEN SOURCES AS A FUNCTION OF TEACHERS

	Teacher
a. Parents	8
b. School counselors	5
c. Policeman	10
d. Teachers	2
e. Friends	1
f. Relatives/ Parents	6
g. Social worker	4
h. School nurse	3
i. Dean of students	7
j. Principal	9

TABLE 46

VALUES OF SPEARMAN'S RANK ORDER CORRELATION OF COEFFICIENT BASED ON COMPARISONS OF RANKS ASSIGNED BY TEACHERS AND STUDENTS[1]

	M-10	F-10	M-11	F-11	M-12	F-12
Teacher	.610*	.455	.455	.455	.393	.539
M-10	X	.948**	.846**		.846**	
F-10		X		.915**		.952**
M-11			X	1.000**	.964**	
F-11				X		.964**
M-12					X	.952**
F-12						X

[1]Cell labels which consist of letter-number codes designate the sex and grade level of students. M-10 for example denotes male tenth graders.

*P $<$ .05; N= 10
**P $<$ .01; N= 10

Questions 17 and 18 deal with school rules. Question 17 required respondants to indicate the rule which is most necessary. Although the top rankings for various student groups are distributed over a number of response categories (see Table 47), student agreement was significant in six of nine comparisons (see Table 49). Tabulations of all student responses placed cutting and tardiness rules first, and the no smoking marijuana rules second. The third most frequent response was "no rule." Lowest frequency responses were the "no hats" rule, and the rule requiring students to eat in the cafeteria.

Teachers responded most often that students would perceive attendance rules, which were ranked sixth by students, as most necessary (see Table 48). Teachers did, however, match students on the third ranked response, "no rule." In addition they also selected cutting and tardiness fairly often. Although teacher/student correspondence resulted in low or negative correlations, the sizeable number of tied ranks may have lowered valued of rho to some extent.

Question 18 required respondents to indicate which of Polytechnic's rules is most unnecessary. Here, four out of the six student subgroups identified police patrols as least necessary. Responses falling in the categories of fighting and strong discipline occurred with the lowest frequency. Within grade correspondence between sexes was quite low, while correspondence over grades for each sex considered separately was generally more substantial (see Table 52). Sex differences appear attributable primarily to the fact that

TABLE 47

RANK AND RANK ORDER CORRELATION ASSIGNED TO TEN CATEGORIES PERTAINING TO GENERAL ENVIRONMENT AS A FUNCTION OF GRADE AND SEX

	Grade 10		Grade 11		Grade 12	
	M	F	M	F	M	F
a. No smoking Pot	4.5	1	2	2	3	2
b. Cutting & tardiness	3	2	1	3	2	1
c. No loitering	7	7.5	6	6.5	7	4
d. No fighting	6	7.5	5	4.5	5	7.5
e. No hats rule	9	10	6	9	7	9.5
f. Strong discipline	2	7.5	5	4.5	4	3
g. Eating in cafeteria	9	7.5	5	9	10	9.5
h. 18-day rule	9	4.5	6	6.5	1	5
i. No rule	1	3	3	1	9	6
j. Attendance	4.5	4.5	6	9	7	7.5
	ρ .554		ρ .739		ρ .697	

TABLE 48

RANK AND RANK ORDER CORRELATION ASSIGNED TO TEN CATEGORIES PERTAINING TO GENERAL ENVIRONMENT AS A FUNCTION OF TEACHERS

	Teacher
a. No smoking Pot	8.5
b. Cutting & tardiness	4
c. No loitering	8.5
d. No fighting	8.5
e. No hats rule	5.5
f. Strong discipline	2
g. Eating in cafeteria	8.5
h. 18-day rule	5.5
i. No rule	3
j. Attendance	1

TABLE 49

VALUES OF SPEARMAN'S RANK ORDER CORRELATION OF COEFFICIENT BASED ON COMPARISONS OF RANKS ASSIGNED BY TEACHERS AND STUDENTS[1]

	M-10	F-10	M-11	F-11	M-12	F-12
Teachers	-.379	-.085	.087	-.564	.136	-.397
M-10	X	.554	.598*		.106	
F-10		X		.730*		.654*
M-11			X	.739*	.442	
F-11				X		.687*
M-12					X	.697*
F-12						X

[1]Cell labels which consist of letter-number codes designate the sex and grade level of students. M-10 for example denotes male tenth graders.

*P $<$ .05; N=10
**P $<$ .01; N=10

males tended to list the no hat rule more often than females, while females tended to list the 18 day rule more often (see Table 50).

The greatest number of teachers indicated that students would view cutting and tardiness rules, prohibitions against smoking, and rules regarding eating in the cafeteria as most unnecessary. None of the teacher respondants mentioned the loitering and 18 day rules, both of which were mentioned relatively often in several student subgroups.

The most notable misconception on the part of teachers, however, occurred with respect to police patrols. Where students objected to these patrols more than to any other restriction, teacher responses resulted in a rank of 6, as shown in Table 51. Because of this and other noted differences in responses, values of rho for comparisons involving teachers were quite low.

Question 19 required respondants to indicate how relaxed students feel in various school settings. This question was included in order to provide a measure of affect toward the school in general, and to provide some indication of the extent to which positive feelings are associated with settings in which planned learning experiences occur. Ranks based on student responses are presented in Table 53.

In all grades and for both sexes, students indicated overwhelmingly that they feel most relaxed outside of the building. The gym and the library received most of the second and third place ratings, with restrooms, workshops and

TABLE 50

RANK AND RANK ORDER CORRELATION ASSIGNED TO TEN CATEGORIES PERTAINING TO GENERAL ENVIRONMENT AS A FUNCTION OF GRADE AND SEX

	Grade 10		Grade 11		Grade 12	
	M	F	M	F	M	F
a. No smoking cigarettes	5	10	4	6	4	6
b. Cutting & tardiness	2	4	1	2	3	4
c. No loitering	3	1	2.5	4	2	7.5
d. No fighting	9	8.5	8.5	8.5	5	8
e. No hat rule	4	8.5	5	10	6	9.5
f. Strong discipline	10	7	6	7	10	7.5
g. Eating in cafeteria	8	6	7	8.5	8.5	9.5
h. 18-day rule	4	3	8.5	3	7	3
i. Police patrol	1	2	2.5	1	1	1
j. Closed campus	7	5	10	5	5	2
	ρ .560		ρ .436		ρ .365	

TABLE 51

RANK AND RANK ORDER CORRELATION ASSIGNED TO TEN CATEGORIES PERTAINING TO GENERAL ENVIRONMENT AS A FUNCTION OF TEACHERS

	Teachers
a. No smoking cigarettes	2
b. Cutting and tardiness	1
c. No loitering	9.5
d. No fighting	8
e. No hat rule	5
f. Strong discipline	7
g. Eating in cafeteria	3
h. 18-day rule	9.5
i. Police patrol	6
j. Closed campus	4

TABLE 52

VALUES OF SPEARMAN'S RANK ORDER CORRELATION OF COEFFICIENT BASED ON COMPARISONS OF RANKS ASSIGNED BY TEACHERS AND STUDENTS[1]

	M-10	F-10	M-11	F-11	M-12	F-12
Teachers	.106	-.279	.294	.006	.187	-.013
M-10	X	.560	.684*		.875**	
F-10		X		.766**		.430
M-11			X	.436	.678*	
F-11				X		.763*
M-12					X	.365
F-12						X

[1]Cell labels which consist of letter-number codes designate the sex and grade level of students. M-10 for example denotes male tenth graders.

*P < .05; N= 10
**P < .01; N= 10

laboratories receiving the lowest ratings. As Table 53 shows, whenever differences in ranks occurred for a particular setting, these differences were of generally small magnitude. As a consequence of this close correspondence, judgements for student groups were highly correlated (see Table 55).

Teacher assessment of the ease students feel in different situations was essentially the same for the alternative which received the greatest favorability rating - outside the building. Teachers also successfully predicted the fairly low ranks assigned to classrooms, workshops, and laboratories. In other particulars, however, judgements were less perceptive. As Table 54 shows, teachers underpredicted the positive affect associated with the library (ranked lowest by teachers) and with the gym; they underpredicted the relatively negative affect associated with the lunchroom and restrooms. These miscalculations were reflected by fairly low correlations of teacher/student judgements in all six comparisons (see Table 55).

The final question analyzed in this study required respondants to indicate whether or not students would elect to participate in each of a variety of extra-curricular activities. All male students and one of the three groups of female students responded affirmatively to sports more often than to any other activity. Socializing (selected most often by two of the three female groups), and school dances were also high preference activities. As Table 56 indicates, the lowest rank was assigned more often to playing in the school band than to any other alternative. However, when distinctions among students are disregarded,

TABLE 53

RANK AND RANK ORDER CORRELATION ASSIGNED TO NINE CATEGORIES PERTAINING TO GENERAL ENVIRONMENT AS A FUNCTION OF GRADE AND SEX

	Grade 10		Grade 11		Grade 12	
	M	F	M	F	M	F
a. Classroom	6	6	5	5	6	5
b. Hallways	4	4	4	4	3	3
c. Outside the building	1	1	1	1	1	1
d. Gym	2.5	2	3	2	5	2
e. Restrooms	7	7	9	7	9	7
f. Lunchroom	5	5	6	6	7.5	6
g. Workshops	8	8	7	9	4	9
h. Laboratories	9	9	8	8	7.5	8
i. Library	2.5	3	2	3	2	4
	ρ .992		ρ .917		ρ .621	

TABLE 54

RANK AND RANK ORDER CORRELATION ASSIGNED TO NINE CATEGORIES PERTAINING TO GENERAL ENVIRONMENT AS A FUNCTION OF TEACHERS

	Teachers
a. Classroom	6
b. Hallways	2
c. Outside the building	1
d. Gym	5
e. Restrooms	4
f. Lunchroom	3
g. Workshops	7
h. Laboratories	8
i. Library	9

TABLE 55

VALUES OF SPEARMAN'S RANK ORDER CORRELATION OF COEFFICIENT BASED ON COMPARISONS OF RANKS ASSIGNED BY TEACHERS AND STUDENTS[1]

	M-10	F-10	M-11	F-11	M-12	F-12
Teachers	.356	.375	.142	.309	.055	.442
M-10	X	.992**	.928**		.709*	
F-10		X		.967**		.950*
M-11			X	.917**	.855**	
F-11				X		.992**
M-12					X	.621*
F-12						X

[1]Cell labels which consist of letter-number codes designate the sex and grade level of students. M-10 for example denotes male tenth graders.

*P < .05; N=9
**P < .01; N=9

positive responses were lowest for working on the school newspaper.

Except for tenth graders, within grade correlations achieved significance (see Table 58). Agreement within sex over grade levels was significant except for comparisons involving tenth grade males. These students tended to be more favorably disposed toward working on the school newspaper and playing in the school band than were other males. They were also somewhat less favorably disposed toward participating in school government and in the school chorus.

Although teacher responses did result in sports and socializing being ranked among the three most preferred activities, they also resulted in an overly high rating for the school chorus and a somewhat too low rating for student government. As is clear from comparisons of data in Tables 56 and 57, teacher judgements did correspond reasonably well to responses made by eleventh and twelfth grade females. Excluding correlations based on these comparisons, values of rho were too small to result in significance (see Table 58).

Like teachers, parents correctly selected two of the three most preferred extra-curricular activities. Comparisons of the three Parents and All Students columns of Table 57 show that parents did somewhat better than teachers in predicting responses to student government, the school choir, and the school orchestra. The parent/student correlation, consequently, was significant, where the teacher/student correlations were not.

TABLE 56

RANK AND RANK ORDER CORRELATION ASSIGNED TO SEVEN ACTIVITIES AS A FUNCTION OF GRADE AND SEX

	Grade 10		Grade 11		Grade 12	
	M	F	M	F	M	F
a. Playing sports	1	1	1	2	1	2
b. Working on school newspaper	5	6	7	6	6	5
c. Participating in sudent government	6.5	5	4	5	4	6
d. Singing in school chorus of choir	6.5	4	5	4	5	4
e. Playing in school orchestra or band	4	7	6	7	7	7
f. Attending school dances	2	2	3	3	3	3
g. Socializing	3	3	2	1	2	1
	ρ .669		ρ .892		ρ .857	

TABLE 57

RANK AND ORDER CORRELATION ASSIGNED TO SEVEN ACTIVITIES AS A FUNCTION OF THE TEACHER

Activities	Teacher	Parents	Student
a. Playing sports	3	1.	2
b. Working on school newspaper	6	4.5	7
c. Participating in student government	7	3	4
d. Singing in school chorus or choir	2	6.5	5
e. Playing in school orchestra or band	5	6.5	6
f. Attending school dances	4	4.5	3
g. Socializing	1	2	1

$\rho = .796$ $\rho = .750$

TABLE 58

VALUES OF SPEARMAN'S RANK ORDER CORRELATION OF COEFFICIENT BASED ON COMPARISONS OF RANKS ASSIGNED BY TEACHERS AND STUDENTS [1]

	M-10	F-10	M-11	F-11	M-12	F-12
Teacher	.384	.571	.535	.732*	.500	.785*
M-10	X	.669	.669		.562	
F-10		X		.892*		.892*
M-11			X	.892*	.988**	
F-11				X		.988*
M-12					X	.857*
F-12						X

[1] Cell labels which consist of letter-number codes designate the sex and grade level of students. M-10 for example denotes male tenth grade.

*P<.05; N=7
**P<.01; N=7

Summary and Discussion

Analysis of questions 1 through 6 indicated fairly high consensus among students regarding both the broader issues and several of the more specific concerns related to curriculum. Basically, students agreed that the school's proper goal is to educate students and that this goal would be best accomplished through a curriculum based on student interest. Although teacher judgements accurately reflected student opinion regarding the primary function of the school, they underestimated the degree to which student participation is desired. The majority of the teachers felt that students would prefer a curriculum defined jointly by students, teachers and community representatives.

Students generally found academic or college preparatory courses much more valuable than special interest courses such as art and music. The more vocationally oriented courses (e.g., industrial arts, clerical, etc.) were perceived as least useful. In general, teachers failed to anticipate this trend in student opinion. Parent respondants were somewhat more successful in this regard. Students also indicated relatively high interest in finding out more about current music, voting rights for teens, and career opportunities, and relatively low interest in learning more about politics and ethnic studies. Neither teachers nor parents successfully detected this pattern of interests.

Student agreement on matters relating to learning variables was somewhat weaker. Several trends did emerge, however. A compilation of responses

to several questions indicated that students prefer learning experiences which have a high activity component (e.g., field trips were preferred to activities such as watching demonstrations), and a high interaction component (e.g., class discussion was preferred to alternatives such as independent study).

Students often preferred traditional activities such as reading and discussion more than activities which require technologically advanced equipment such as tapes and filmstrips; these alternatives were also preferred to activities which may be considered somewhat innovative when applied to the secondary level (e.g., laboratory experiments). All things considered, teachers and parents were somewhat insensitive to these preferences. In addition, teachers misperceived the relative confidence students have in skill areas such as reading and writing which are necessary for successful performance in more traditional classroom settings. Teachers also underestimated the extent to which students find formal sources of information useful, relative to personal contacts and to the mass media.

On questions which sampled student opinion regarding various aspects of the school environment, students responded more positively to individuals who function in less official capacities than to teachers, administrators and other school personnel. Teachers were judged particularly harshly, as evidenced by the fact that many students indicated that they liked nothing about their teachers.

Students were also more positive toward regular classes than toward special programs, and more interested in extra-curricular activities which are not highly related to school and which require no special skills (e.g., musical or writing skills). Teachers and parents also failed to predict these general trends.

Responses to questions dealing with specific school settings indicated that most of the situations which should be highly conducive to learning (e.g., classrooms, laboratories, workshops) were rated as relatively aversive to students. Only the library was rated as being a somewhat comfortable setting. In general, teachers did assign low ratings to those situations in which planned learning experiences should occur. Other more fine-grained details of the teacher response pattern did not agree with student response patterns.

Although parents and teachers were able to assess student opinion reasonably well in several important areas, disagreement in ranks based on judgements made by the three classes of respondants was considerable in a number of equally important instances. This finding indicates that in spite of fairly high student agreement on a number of issues, student interests and preferences have not been adequately communicated to two of the groups that have been most vocal and most successful in demanding curriculum changes on behalf of students. To the extent that curriculum planners accept parent and teacher views as representative of student opinion, students may be as critical of the revised programs of study as of existing programs.

CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

The final chapter summarizes the findings of the present study and draws related conclusions. It also directs attention to salient approaches for further research in the area of student interest.

SUMMARY

The present study sought to determine whether a stable pattern of student interest could be identified, and if such a pattern emerged, whether or not this pattern is accurately perceived by parents and teachers.

A set of parallel questionnaires, consisting of three categories were developed to elicit certain data from the population participating in the study. The categories were as follows: general curriculum, learning variables, and general environment. All data were analyzed according to one of these broad categories, (See Chapter IV).

Results from the data indicated that a statistical significance agreement exists between sexes of students within grade and across grade levels. Further findings revealed that teachers and parents were able to assess student opinions reasonably well in several categories. Mainly the learning variables and the curriculum categories.

Again, the topics which received low ratings bear further comments. The fact that students expressed less interest in ethnic studies than in eleven other topics suggests that reconsideration be given to claims which imply that increased "relevance" for Black students rests solely or primarily on the introduction of courses which relate to the Black experience, its culture, and its history. The fact that students expressed even less interest in politics and political leaders is also worth noting in view of the high degree of student activism and the high level of political involvement generally attributed to residents of the Bay area in California.

Overall, the findings of the present investigation revealed that as students advance in grade levels, their perceptions of various courses are significantly dissimilar to students in lower grades.

CONCLUSIONS

The results of this study clearly suggests that a great deal of diversity exists among secondary school students and teachers with this particular study. Students that are seemingly similar due to variables of geographic location, composition of student body, present college-bound seniors, etc., do in fact exhibit a variety of differences and investigable interests.

The study also suggests that teachers/student discrepencies in perceptions of the same climate also exists and these are similarly investigable.

The questionnaire has further demonstrated its potential value and its use as valid instrument to investigate students differences and similarity and teacher perception of those interests. School boards, administrators, counselors, teachers, parents, and indeed students themselves may see their school through the eyes of a collective majority and thus recognize possible areas of concern or improvement.

IMPLICATIONS

Studies of student interest to some extent have often examined curricula, cost, physical structure, and student interest in relation to academic achievement, etc., but not student and teacher perceptions of these and other facets of the overall climate. Since behavior of students is determined by the interaction between the individuals interests and his school atmosphere the characteristics of this interest or stimulus are as important as the characteristics of the school atmosphere. This study has attempted to investigate student interest and teacher perception of those interests.

An initial suggestion for further research is that the present study be replicated to confirm and enhance the validity and reliability of both the instruments and their premises.

Similarly, it is recommended that the present study be expanded in scope so as to include a national cross section of schools. To this end, the sample

should include vocational-technical schools, private schools, parochial schools, schools of a much broader, racial composition, administrators, and business community other than parents. A greater sample would, of course, allow for the establishment of wider more representative norms and also allow the determination of specific institutional patterns with a greater degree of confidence in classification.

Such research would then enable future investigators to deal more confidently with educational interests of students as it implinges on or facilitates the attinment of school objectives. Therefore, a longitudinal study with the intention of investigating student interest and teacher perceptions in the educational climate after institutional self-analysis would be both appropriate and informative. Questions which may be answered are: (1) Do school administrators and teachers really want to know how their students see their schools? (2) Are administrators and teachers interested in establishing educational objectives on student terms? (3) Can teachers and student perception descrepancies be reduced? (4) Which aspects of the educational environment in relation to student interests are most difficult to change?

Once adequate investigations of student interest are accomplished investigators can deal more accurately with the variables of intelligence and achievement as factors responding to student interests and variables. Analysis may then be made of those interest patterns which foster greater student growth,

or those patterns which are more successful with a given student composition. For example, Silberman (1970) indicates that the diversity of individual difference is a basic fact of nature as are most other characteristics. He adds that equal educational opportunity, must, therefore, not be interpreted as uniformity of facilities, aims and techniques but quite the opposite. Schools must provide a diversity of programs and opportunities so as to compliment the diversity in human interests and abilities. To this end, the educational climate will continue to be an important component of educational success.

Further study of student interest will need to explore new dimensions. More comprehensive analysis needs to be made of faculty cultures, and administrative cultures, as well as student cultures. Other factors affecting interest patterns that need to be considered are the attempts at and results of innovations such as differentiated staffing, flexible scheduling, independent study, etc., on the behavior of students.

RECOMMENDATIONS

Based upon the findings of the investigation, the following recommendations are suggested:

1. That areas of agreement between students and teachers be used as starting points for selecting course alternatives.
2. That areas of disagreement between student and teachers

be used as starting points for analyzing problems that could be handled through a system of courses and activities.

3. That when correspondence between students and teachers regarding similar contact is negative, there should be an attempt to deal with different perceptions by associating them with areas of strong agreement.
4. That a continuous system of feedback of students perceptions about school offerings (courses) and practice be provided for teachers.
5. That alternative programs reflect a difference in the students orientation according to sex and grade level.
6. That patterns for including students selected by sex and grade level into planning activities of program development be developed and implemented.
7. That teachers develop materials specifically designed to the needs of inner city students.
8. That all programs have a systematic method for evaluating student interest as well as teacher interest.

BIBLIOGRAPHY

Atkinson, John W. "The Mainsprings of Achievement-Oriented Activity." J. D. Krumboltz, (ed.). Learning and Educational Process. New York: Rand McNally, 1965.

Bacchus, M. K. "Some Factors Influencing the Views of Secondary Modern School Teachers on their Pupils Interests and Abilities." Educational Review. 1969.

Bailey, I. A. and R. V. Robertson. "Student and Teachers' Perceptions of Student Problems." Personnel and Guidance Journal, October 1964, 171-172.

Baratz, Joan C. "Educational Considerations for Teaching Standard English for Negro Children. Fasold, R. W. and W. S. Roger (ed.). Teaching Standard English in the Inner City. Florida: Center for Applied Linguistics, 1970.

Baratz, S. S. and J. C. Baratz. "Negro Ghetto Children and Urban Education: A cultural solution." The Florida Reporter - A Language Education Journal, Vol. 7, #1, Spring 1969.

Carter, Thomas P. "Cultural Content of Linguistically Different Learners." Elementary English, Feb. 1971, 162-175.

Coleman, J. S. Equality of Educational Opportunity. Washington, D.C.: U. S. Office of Education, 1966.

Cross, J. S. and J. M. Nagle. "Student Oriented Teacher and How to Find them." National Association of Secondary School Principals Bulletin, 53:82-8, October 1968.

Duster, Troy. "Student Interests, Student Power and the Swedish Experience." American Behavioral Scientists, Vol. 11, 1967/68.

Field Act - Section 15451 through 15518 of the Educational Code, State of California, 1969.

Fish, K. L. Conflict and Dissent in the High Schools. New York: Bruce Publishing Co. 1970.

Flanders, N. Helping Teachers Change Their Behavior. University of Michigan Press, 1965.

Flanders, N. "Teachers Influences, Pupil Attitudes and Achievements." Cooperative Research Monograph. Washington, D.C.: U. S. Office of Education, 1959.

Frandsen, A. and M. Sorenson. "Interests as Motives in Academic Achievement." Journal of School Psychology, Vol. 7, No. 1, 1968-68.

Gage, N., G. Levett and G. Stone. "Teachers Understanding of their Pupils and Pupils Rating of their Teachers." Psychological Monograph, 1955.

Garrett, H. A. "A Review and Interpretation of Factors Related to Scholastic Success in College of Arts and Science and Teachers College. Journal of Experimental Education, 1949, 18, 128.

Glasman, N. S. "Teacher's Low Expectation Levels of Their Culturally Different Students: A View from Administration." Journal of Secondary Administration, 82-94, January 1970.

Goodlad, J. I. "Direction of Curriculum Change." Secondary Schools Today: Reading for Educators. Boston: Houghton Mifflin, 1969.

Guilford, J. P. Fundamental Statistics in Psychology and Education. New York: McGraw Hill Book Company, 1965.

Harris, D. B. "Life Problems and Interests of Adolescents 1935 and 1957." School Review, LXVII, 1959, 335-343.

Havighurst, R. J. "Unrealized Potentials of Adolescents." Secondary Schools Today: Reading for Educators. Boston: Houghton Mifflin, 1969

Keniston, K. "What's Bugging the Students." Educational Record, 51:2, Spring 1970.

Knox, A. B. "Interest and Adult Education." Journal of Learning Disabilities. Vol. 1, No. 4, April 1968.

Kroll, Arthur M. Issues in American Education. New York: Oxford University Press, 1970.

Labor, William. "The Logic of Non-Standard English." The Florida Reporter - A Language Education Journal, Vol. 7, No. 1, Spring/Summer, 1969.

Larson, R. G. "School Curriculum and the Urban Disadvantaged: A Historical Review and Some Thoughts About Tomorrow." The Journal of Negro Education, Vol. No. 351-360, 1968.

Lavin, D. E. The Prediction of Academic Performance. New York: Russell Sage Foundation, 1963.

McCallon, Earl L. "Interpersonal Perception Characteristics of Teachers." The Journal of Experimental Education, Vol. 34, No. 3, Spring, 1966.

McFee, Anne. "The Relation of Students' Needs to Their Perceptions of College Environment." Journal of Educational Psychology, Vol. 52, No. 1, 25-29, 1961.

Massialas, Byron G. Education and the Political System. Boston: Addison Wesley, 1969.

Ornstein, A. C. "On High School Violence: The Teacher-Student Role." Journal of Secondary Education, Vol. 45, No. 3, 1970, 99-105.

Pace, C. R. and G. Stern. "An Approach to the Measurements of Psychological Characteristics of College Environments." Journal of Educational Psychology, 1958, 49, 268-277.

Posthuma, A. B. and L. Navran. "Relation of Congruence in Student-Faculty Interests to Achievement in College." Journal of Counseling Psychology. Vol. 17, No. 4, 1970, 352-56.

Postman, N. and C. Weingarter. Teaching As A Subversive Activity. New York: Delacorte Press, 1969.

Rosenthal, R. and L. Jacobson. Pygmalion in the Classroom and Pupils' Intellectual Development. New York: Holt, Rinehart and Winston, 1968.

Shappell, D. L., F. C. Arnold and W. S. Gregory. "Differentiation of Academic Interests." Educational and Psychological Measurements, 1969, 29, 473-478.

Shuy, R. W. "Teacher Training and Urban Language Problems." Teaching Standard English in the Inner City. Florida: Center for Applied Linguistics, 1970.

Siegel, Sidney. Nonparametric Statistics for the Behavioral Sciences. New York: McGraw Hill Book Co., 1956.

Silberman, Charles E. Crisis in the Classroom. New York: Random House, 1970.

Smith, F. R. and R. B. McQuigg. Secondary Schools Today: Readings for Educators. Boston: Houghton Mifflin Company, 1969.

Sinclair, R. "Elementary School Educational Environments: Measurement of Selected Variables of Environmental Press." Unpublished doctoral dissertation, University of California at Los Angeles, 1968.

Spellman, R. J. "Students' Concerns and Protest Merits Educators' Perceptive Response." Contemporary Education, 40:332-42, May, 1969.

Storlie, F. R. "Self Initiated Interests?" Education Leadership, 293-97, Jan. 1966.

Taylor, Harold. How to Change Colleges. New York: Holt, Rinehart and Winston, 1971.

Thistlewaite, D. "College Press and Student Achievement." Journal of Educational Psychology, 1959, 50, 183-191.

Thomas, L. W., W. H. Morrill and C. Miller. "Educational Interest and Achievements." The Vocational Guidance Quarterly. March 1970, Vol. 18, No. 2, 199-202.

Weinstein, G. and Fantini, M. D. The Disadvantaged: Challenge to Education. New York: Harper and Row, 1968.

APPENDIX A

STUDENT FORM

1. The most important job of the schools is to_____

_____

2. Which kind of school program do you think students would like best? (Please check one)

a. A school program based on what experts and scholars think students should study. ( )

b. A school program based on what teachers and administrators think students should study. ( )

c. A school program based on what students are interested in studying. ( )

d. A school program based on what members of the community thinks students should study. ( )

e. A school program based on what students, school personnel, and members of the community think students should study. ( )

3. Please indicate how helpful any of these subjexts have been to you. (Check one space for each subject listed.)

Subjects	Very helpful	Somewhat helpful	Not helpful	No opinion
a. English	( )	( )	( )	( )
b. Physical Education	( )	( )	( )	( )
c. History	( )	( )	( )	( )
d. Civics	( )	( )	( )	( )
e. Biology	( )	( )	( )	( )
f. Life Science	( )	( )	( )	( )
g. Mathematics	( )	( )	( )	( )
h. Basic Math	( )	( )	( )	( )
i. Driver Education	( )	( )	( )	( )
j. Swimming	( )	( )	( )	( )
k. Art	( )	( )	( )	( )
l. Stenographic	( )	( )	( )	( )
m. Bookkeeping	( )	( )	( )	( )
n. Clerical	( )	( )	( )	( )
o. Foreign language	( )	( )	( )	( )
p. Homemaking	( )	( )	( )	( )
q. Industrial Arts	( )	( )	( )	( )
r. Music	( )	( )	( )	( )

4. Indicate your interest in knowing about each of the following topics. (Check one space for each topic listed.)

Topics	Very Interested	Somewhat Interested	Not Interested	No opinion
a. Politics and Political leaders	( )	( )	( )	( )
b. Protest Movements	( )	( )	( )	( )
c. Student Unrest	( )	( )	( )	( )
d. Interracial Dating	( )	( )	( )	( )
e. War and the Draft	( )	( )	( )	( )
f. Teenage Marriage	( )	( )	( )	( )
g. Rock and Popular Music	( )	( )	( )	( )
h. Voting rights for teenagers	( )	( )	( )	( )
i. Integration	( )	( )	( )	( )
j. Use of Drugs	( )	( )	( )	( )
k. Venereal Disease	( )	( )	( )	( )
l. Pollution	( )	( )	( )	( )
m. Ethnic Studies	( )	( )	( )	( )
n. Career Opportunities	( )	( )	( )	( )

5. Do you think sex education should be taught in the schools?

( ) Yes ( ) No

6. Which of these topics in a course of sex education would be most helpful? (Check one space for each topic.)

Topics	Most helpful	Somewhat helpful	Not helpful	No opinion
a. Contraceptives	( )	( )	( )	( )
b. Birth control	( )	( )	( )	( )
c. Venereal disease	( )	( )	( )	( )
d. Abortions	( )	( )	( )	( )
e. Dating and marriage	( )	( )	( )	( )
f. Pregnancy	( )	( )	( )	( )
g. Child care	( )	( )	( )	( )
h. Sexual techniques	( )	( )	( )	( )

7. If you were asked to help improve the way subjects are taught, which would you suggest?

(check one)	a.	( ) More independent study	( ) Less indpendent study
(check one)	b.	( ) More class discussion	( ) Less class discussion
(check one)	c.	( ) More field trips	( ) Less field trips
(check one)	d.	( ) More individual attention	( ) Less individual attention
(check one)	e.	( ) More homework	( ) Less homework
(check one)	f.	( ) More timely or current subject matter	( ) Less emphasis on current subject matter

8. What are some of the ways of learning that you enjoy the most? For example, how much do you enjoy learning by: (check one space for each example).

Ways of learning	Very much	Somewhat	Not at all	No opinion
a. Reading books	( )	( )	( )	( )
b. Reading magazines	( )	( )	( )	( )
c. Participating in discussions	( )	( )	( )	( )
d. Doing library research	( )	( )	( )	( )
e. Doing experiments	( )	( )	( )	( )
f. Using films and film strips	( )	( )	( )	( )
g. Using tape recorders	( )	( )	( )	( )
h. Taking field trips	( )	( )	( )	( )
i. Watching television	( )	( )	( )	( )
j. Working with student leaders	( )	( )	( )	( )
k. Watching demonstrations	( )	( )	( )	( )
l. Listening to speeches	( )	( )	( )	( )

9. Please indicate how you feel when you are: (check one space for each activity listed.)

Activity	Very relaxed	Somewhat relaxed	Not relaxed	No opinions
a. Reading	( )	( )	( )	( )
b. Writing	( )	( )	( )	( )
c. Listening	( )	( )	( )	( )
d. Reciting	( )	(—)	( )	( )
e. Playing	( )	( )	( )	( )
f. Searching for information	(( )	( )	( )	( )
g. In discussions	( )	( )	( )	( )

10. What kinds of activities do you think are important for making improvements in your regular school work? (check one space for each activity listed.)

Activities	Yes	No	No opinion
a. Improving study skills	( )	( )	( )
b. Improving research skills	( )	( )	( )
c. Improving library skills	( )	( )	( )
d. Improving reading skills	( )	( )	( )
e. Improving writing skills	( )	( )	( )
f. Improving listening skills	( )	( )	( )
g. Improving speaking skills	( )	( )	( )

11. Indicate how helpful is each of these sources for finding out about important people and topics. (Check one space for each source.)

Source	Very helpful	Somewhat helpful	Not helpful	No opinion
a. Teachers	( )	( )	( )	( )
b. Friends	( )	( )	( )	( )
c. Parents	( )	( )	( )	( )
d. Television	( )	( )	( )	( )
e. Radio	( )	( )	( )	( )
f. Newspapers	( )	( )	( )	( )
g. Books	( )	( )	( )	( )
h. Paperback books	( )	( )	( )	( )
i. Magazines	( )	( )	( )	( )

12. The one thing that I like best about my school is _____

_____

13. The one think that I dislike most about my school is _____

_____

14. The one thing I like most about my teachers is _____

_____

15. The one thing that I dislike most about my teachers is _____

_____

16. If I had a problem with the use of drugs and wanted some help or advice, I would consider the following people helpful:

	Very helpful	Somewhat helpful	Not helpful	No opinion
a. Parents	( )	( )	( )	( )
b. School Counselors	( )	( )	( )	( )
c. Policeman	( )	( )	( )	( )
d. Teachers	( )	( )	( )	( )
e. Friends	( )	( )	( )	( )
f. Relatives	( )	( )	( )	( )
g. Social Worker	( )	( )	( )	( )
h. School Nurse	( )	( )	( )	( )
i. Dean of Students	( )	( )	( )	( )
j. Principal	( )	( )	( )	( )

17. The one rule in my school that I feel is most necessary is _____

_____

18. The one rule in my school hthat I feel is least necessary is _____

_____

19. Please indicate how you feel in any of these places. (check one space for each place listed.)

Places	Very relaxed	Somewhat relaxed	Not relaxed	No opinions
a. Classroom	( )	( )	( )	( )
b. Hallways	( )	( )	( )	( )
c. Outside the building	( )	( )	( )	( )
d. Gym	( )	( )	( )	( )
e. Restrooms	( )	( )	( )	( )
f. Lunchroom	( )	( )	( )	( )
g. Workshops	( )	( )	( )	( )
h. Laboratories	( )	( )	( )	( )
i. Library	( )	( )	( )	( )

20. -If you were allowed to take part in one activity of your choice during the regular school day, which activity would you choose? (check one space for each activity listed).

Activities	Yes	No	No opinion
a. Playing sports	( )	( )	( )
b. Working on school newspaper	( )	( )	( )
c. Participating in student government	( )	( )	( )
d. Singing in school chorus or choir	( )	( )	( )
e. Playing in school orchestra or band	( )	( )	( )
f. Attending school dances	( )	( )	( )
g. Socializing	( )	( )	( )

TEACHER FORM

1. Students think that the most important job of the school is to_____

_____

2. What kind of school program do you think students would like best? (please check one)

a. A school program based on what experts and scholars think students should study ( )
b. A school program based on what teachers and administrators think students should study. ( )
c. A school program based on what students are interested in studying. ( )
d. A school program based on what members of the community think students should study. ( )
e. A school program based on what students, school personnel, and members of the community think students should study. ( )

3. Please indicate how helpful your students would consider the following subjects. (check one space for each subject listed.)

Subjects	Very helpful	Somewhat helpful	Not helpful	No opinion
a. English	( )	( )	( )	( )
b. Physical Education	( )	( )	( )	( )
c. History	( )	( )	( )	( )
d. Civics	( )	( )	( )	( )
e. Biology	( )	( )	( )	( )
f. Life Science	( )	( )	( )	( )
g. Mathematics	( )	( )	( )	( )
h. Basic Math	( )	( )	( )	( )
i. Driver Education	( )	( )	( )	( )
j. Swimming	( )	( )	( )	( )
k. Art	( )	( )	( )	( )
l. Stenographic	( )	( )	( )	( )
m. Bookkeeping	( )	( )	( )	( )
n. Clerical	( )	( )	( )	( )
o. Foreign Language	( )	( )	( )	( )
p. Homemaking	( )	( )	( )	( )
q. Industrial Arts	( )	( )	( )	( )
r. Music	( )	( )	( )	( )

4. Please indicate how interested you think your students would be in studying the following topics during school hours: (check one space for each topic listed)

Topics	Very interested	Somewhat interested	Not interested	No opinion
a. Politics and Political leaders	( )	( )	( )	( )
b. Protest movements	( )	( )	( )	( )
c. Student unrest	( )	( )	( )	( )
d. Interracial dating	( )	( )	( )	( )
e. War and Draft	( )	( )	( )	( )
f. Teenage marriage	( )	( )	( )	( )
g. Rock and popular music	( )	( )	( )	( )
h. Voting rights for teen-agers	( )	( )	( )	( )
i. Integration	( )	( )	( )	( )
j. Use of Drugs	( )	( )	( )	( )
k. Venereal disease	( )	( )	( )	( )
l. Pollution	( )	( )	( )	( )
m. Ethnic Studies	( )	( )	( )	( )
n. Overpopulation	( )	( )	( )	( )
o. Career Opportunities	( )	( )	( )	( )

5. Do the students in this school feel that they have adequate information about venereal disease?

( ) Yes ( ) No

6. Please indicate how helpful your students would consider the following topics in a course on sex education (check one space for each topic)

Topics	Very helpful	Somewhat helpful	Not helpful	No opinion
a. Contraceptives	( )	( )	( )	( )
b. Birth control	( )	( )	( )	( )
c. Venereal disease	( )	( )	( )	( )
d. Abortions	( )	( )	( )	( )
e. Dating and marriage	( )	( )	( )	( )
f. Pregnancy	( )	( )	( )	( )
g. Child care	( )	( )	( )	( )
h. Sexual techniques	( )	( )	( )	( )

7. If your students were asked to help improve the way subjects are taught, which would they suggest?

a. More independent study	( )	Less independent study	( )
b. More class discussion	( )	Less class discussion	( )
c. More field trips	( )	Less field trips	( )
d. More individual attention	( )	Less individual attention	( )
e. More homework	( )	Less homework	( )
f. More timely or current subject matter	( )	Less emphasis on current subject matter	( )

8. What are some of the ways that students would say they enjoy learning the most? (check one space for each example.)

Ways of learning	Very much	Somewhat	Not at all	No opinion
a. Reading books	( )	( )	( )	( )
b. Reading magazines	( )	( )	( )	( )
c. Participating in discussions	( )	( )	( )	( )
d. Doing library research	( )	( )	( )	( )
e. Doing experiments	( )	( )	( )	( )
f. Using films and filmstrips	( )	( )	( )	( )
g. Using tape recorders	( )	( )	( )	( )
h. Taking field trips	( )	( )	( )	( )
i. Watching television	( )	( )	( )	( )
j. Working with student leaders	( )	( )	( )	( )
k. Watching demonstrations	( )	( )	( )	( )
l. Listening to speeches	( )	( )	( )	( )

9. Please indicate how you think your students would say they feel when they are: (check one space for each activity listed.)

Activity	Very relaxed	Somewhat relaxed	Not relaxed	No opinion
a. Reading	( )	( )	( )	( )
b. Writing	( )	( )	( )	( )
c. Listening	( )	( )	( )	( )
d. Reciting	( )	( )	( )	( )
e. Playing	( )	( )	( )	( )
f. Searching for information	( )	( )	( )	( )
g. In discussions	( )	( )	( )	( )

10. What are some of the activities (academic) that your students feel are important for making improvements in their regular school work?

Activities	Yes	No
a. Improving study skills	(__)	( )
b. Improving research skills	( )	( )
c. Improving library skills	( )	( )
d. Improving reading skills	( )	( )
e. Improving writing skills	( )	( )
f. Improving listening skills	( )	( )
g. Improving speaking skills	( )	( )

11. How helpful would student say each of these sources is for finding out about currently important people or topics? (check one space for each source.)

Sources	Very helpful	Somewhat helpful	not at all	No opinion
a. Teachers	( )	( )	( )	( )
b. Friends	( )	( )	( )	( )
c. Parents	( )	( )	( )	( )
d. Television	( )	( )	( )	( )
e. Radio	( )	( )	( )	( )
f. Newspapers	( )	( )	( )	( )
g. Books	( )	( )	( )	( )
h. Paperbacks	( )	( )	( )	( )
i. Magazines	( )	( )	( )	( )

12. The one thing that your students would say they

Like best about this school is_____

13. The one thing that your students would say they

dislike most about this school is_____

15. The one thing I think students like most about teachers in this school is_____

_____

16. The one thing I think students dislike most about teachers in this school is_____

_____

17. The one rule in this school that your students are likely to feel to be most necessary is_____

18. The one rule in this school that your students are likely to feel to be least necessary is_____

19. How relaxed would your student say they feel in the following places:

Places	Very relaxed	Somewhat relaxed	Somewhat	No opinion
a. Classroom	( )	( )	( )	( )
b. Hallways	( )	( )	( )	( )
c. Outside the building	( )	( )	( )	( )
d. Gym	( )	( )	( )	( )
e. Restrooms	( )	( )	( )	( )
f. Lunchroom	( )	( )	( )	( )
g. Workshops	( )	( )	( )	( )
h. Laboratories	( )	( )	( )	( )
i. Library	( )	( )	( )	( )

20. If your students were given the opportunity to participate in one extra curricular activity of their choice during the regular school day, which would they suggest? (check one space for each activity listed)

Activites	Yes	No
a. Playing sports	( )	( )
b. Working on school newspaper	( )	( )
c. Participating in student government	( )	( )
d. Singing in school chorus or band	( )	( )
e. Playing in school orchestra or band	( )	( )
f. Attending school dances	( )	( )
g. Socializing	( )	( )

APPENDIX B

	M-10	F-10	M-11	F-11	M-12	F-12	Teache
A. Teachers							
a. Teachers	21	12	6	29	7	3	14
b. No help	13	2	4	1	8	12	0
B. Administration							
a. Principal	1	6	5	1	3	4	0
b. Deans	11	4	3	1	5	1	3
c. Counselors	0	0	0	0	1	1	0
C. Physical Plant							
a. Facilities	1	1	6	1	1	1	2
b. School building	4	3	5	5	1	2	13
D. Attitudes							
a. Racism	2	3	4	9	4	3	0
b, No spirit	2	2	3	.9	6	1	11
c. Communication	2	2	1	0	1	3	4
E. People							
a. Student	0	3	4	1	7	3	0
b. Hall Guards	0	1	0	0	0	0	1
F. Classes							
a. English	1	0	1	0	1	0	3
b. History	1	1	0	1	1	1	0
c. Civics	0	2	0	0	1	2	1
d. Boring	3	4	2	1	1	3	15
G. Food							
a. Food	3	3	2	14	2	6	6
H. Discipline							
a. Pigs (Police)	2	2	1	2	2	1	0
b. Rules (18 day)	4	4	2	1	4	2	5
c. Suspension	3	2	3	12	4	2	0
d. Organization	2	1	0	1	3	7	3

	M-10	F-10	M-11	F-11	M-12	F-12	Teacher
A. Teachers	8	10	8	11	11	23	1
a. Teachers	8	10	8	11	11	23	1
B. Freedom	4	3	16	14	16	2	12
a. Freedom	2	2	15	9	15	1	12
b. Open campus	2	1	1	5	1	1	0
C. Extra Curricular	7	8	3	7	4	4	3
a. Sports	7	0	2	0	2	0	1
b. Activities	0	8	0	7	0	0	1
c. Lunch	0	0	1	0	2	4	1
D. Classes	19	19	7	17	16	16	4
a. Small classes	11	6	5	5	5	4	4
b. Spec. classes	8	13	2	12	11	12	0
E. People	13	9	6	13	7	25	27
a. Students (blk)	9	9	5	12	5	25	27
b. Females	4	0	1	1	2	0	0
F. Spec. Programs	0	0	4	3	1	2	2
a. Career Progs.	0	0	1	0	1	1	1
b. Allied Medical	0	0	3	3	0	1	1