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A COMPARISON OF TOTAL SCORES ON THE
LEARNING ATMOSPHERE ATTITUDE SCALE WITH
HIGH SCHOOL STUDENT CHARACTERISTICS AND BEHAVIORS

A dissertation Presented

By

William J. Quinlan

Submitted to the Graduate School of the
University of Massachusetts in
partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

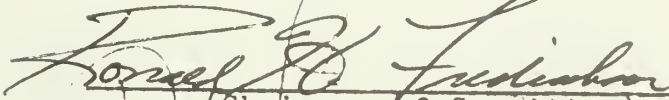August 1971

Major Subject: Education

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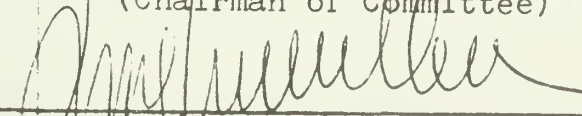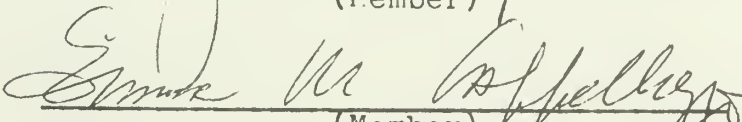HIGH SCHOOL STUDENT CHARACTERISTICS AND BEHAVIORS

A Dissertation

By

William J. Quinlan

Approved as to style and content by:

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(Chairman of Committee)

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(Head of Department)

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August 1971

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Thanks for assistance in a project of this nature can become boring and trite, similar to academy awards. Yet the willingness of persons to give of themselves in time and effort is perhaps one of the most important educational experiences for the participant. It is a charge to him to remember his experiences when others come to him seeking help. I feel that this lesson has been firmly ingrained.

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impossible to verbalize and my thanks for her dedication
will be difficult to repay.

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NATURE AND SCOPE OF THE PROBLEM

During the past decade, education has undergone signi-
ficant changes both in philosophy and practice. Student
concerns, manifested frequently by turmoil and underlaid by
commitment to a cause, have been graphically illustrated by
many young people, particularly those on college campuses.
In many cases these issues have begun to be reflected in the
thinking and behavior of high school students.

Since these critical times of change will continue to
demand an awareness not known by previous generations, it
has become incumbent upon those in education to question
their thinking and behavior and begin to develop positions
and programs that will meet the broader based requests of
the student population. This is particularly true at the
high school level where institutional change is slow to come
in many communities throughout the country. School systems
must constantly evaluate and reshape their philosophies if
they wish to continue to operate effectively in the learning
process.

Accompanying this widespread concern of schools to con-
tinue to be effective in the educational process has been a
plethora of studies investigating student behavior. Human
behavior defined $(B=f(P,E))$ meaning behavior (B) is a
function (f) of the interaction of the person (P) and his

environment (E) (Jones 1968), has been used to explain general factors that affect the adjustment of the individual to his surroundings. The function of the person (P) has been measured in many ways. Measures have been constructed to evaluate not only scholastic achievement, but also numerous aptitudes, interests, types of personality and intelligence. School systems have created testing programs that measure many types of student behavior, all with the purpose of evaluating how well the student has done in relation to school offerings.

However, student attitudes toward the school learning atmosphere have rarely been systematically studied as part of the testing program, although many conjectures have been made to explain these attitudes. Yet one of the groups that should be considered by educators when evaluating the school learning climate is the student body. The measurement of the school climate by students will enable administrators, teachers, counselors and other school personnel to understand better how students perceive their school environment. Specifically, the evaluation of student perceptions of the environment can be of great help to the following:

1. The Principal. An instrument to measure learning atmosphere as perceived by the student could help the principal clarify and balance his ever changing role as chief

administrator in the school. It is essential that the principal continue to be appraised of how the sum total, as well as sub-groups, of his school population perceive the environment for which he and the faculty are responsible. Measurement of these student perceptions will help the principal become aware of the student body as one of the groups with whom he must deal as well as a group who can aid him in program development and evaluation.

2. The Faculty of the School. Any changes in students' perceptions of their environment must be translated to those who deal directly with the students. In many cases, teachers are very much aware of the perceptions of the students they have in class, at least those who cause them trouble. A measurement of student perceptions will crystalize a teacher's awareness of environmental factors, indicating variances in these factors among different courses, grades and other demographic characteristics. These student perceptions may reveal information about curriculum, teacher attitudes as perceived by the student, facilities and other factors that may be extremely helpful to teachers in revising their programs for future years.

3. The Counselor. A scale which measures learning atmosphere can show perceptions of environment that may indicate potential troublesome behaviors. Identification of these behaviors would enable counselors to begin working

closely with these students. For example, it may be that students who have poor perceptions of their school environment may tend to absent themselves from school more frequently than those who have a more positive perception of the school environment. If it could be shown that these poor perceptions of the environment may also result in lower grades, dissatisfaction with some school procedures and other selected areas, then counselors might be able to work more closely with these students prior to a manifestation of their difficulties which usually results in some form of disciplinary action.

The whole question of students' perceptions of the school environment suggest some topics that could be hypothesized within this context:

1. Is it possible to define and measure high school environments based on the perceptions of students who are part of that environment?

2. Will different perceptions of environment occur in different ability levels within a given school?

3. Will similar perceptions of environment occur in like ability levels in different schools?

4. Will common patterns of educational environments emerge among schools when students are measured along selected variables such as grade, sex, I.Q., attendance and grade point average?

The measurement of school climates also has importance for education in a general sense. Since school programs

are currently undergoing various philosophical changes, it
is essential that the participants in the process (the stu-
dents) also be included in any discussions which call for
implementation of new concepts. We must consider those who
are the objects of new programs, as well as those who are
responsible for the implementation of them. In the latter
case, we are talking about administrators, teachers, school
boards and others who are ultimately responsible for the
philosophical direction of such new programs, but little
has been done to seek perceptions of these programs from
the student body, who are the actual recipients of these
programs.

The measurement of the learning atmosphere has, as one
of its ultimate goals the inclusion of students in the pro-
cess of evaluating and suggesting new and effective pro-
grams for learning. The direct aim of a scale that evalu-
ates student perception of the learning climate is to
involve students in the process of change, to enable them
to contribute their perceptions of the school climates as
participants, not as observers.

It is not the intention of most authors of scales that
measure student perception of environment to claim the
capacity to resolve all educational issues. It is impor-
tant, however, that the student viewpoint be known before
philosophical decisions are made. Student perception of

environment can effectively widen the spectrum of information available for the final decision-making process.

Research has shown that little work has been done on learning environments at the secondary level although limited studies have been conducted in developing an instrument for this purpose. Since this is the case, the aim of this study will be to aid in developing an instrument, the Learning Atmosphere Attitude Scale (LAAS) which purports to measure student perceptions of certain factors attributable to school learning environment. If an instrument could be developed along these lines, it might be possible to obtain information that could be helpful to administrators, teachers, counselors and concerned citizens.

Statement of the Problem

The focus of this study will be to compare the total score result of the LAAS with school data collected about the subjects. The purpose will be to see if the scale is able to identify certain characteristics of student behavior that would indicate and correlate with behavior generally thought concurrent with perceived learning atmosphere. The data collected on each student to be used in the comparison will be sex, grade, I.Q., grade point average, attendance records, extra-curricular participation and program of study.

A preliminary study will be undertaken to determine what frame of reference the students will use in their responses on the LAAS. Selected students from three schools in the study will be administered an open-ended questionnaire on school environment prior to their taking the LAAS. The purpose of the open-ended questionnaire is to support the concurrent validity with the LAAS.

Background information. In the proposed study student perception of the environment will be measured by the LAAS, an instrument which purports to measure six areas that may influence how a student perceives the school environment. Research has shown that those dealing with environmental studies have defined similar areas or characteristics as contributors to this perception. Astin and Holland (1961) assembled an eight-variable environmental assessment index to be used at the college level. They based the index on factors of institutional size, student intelligence and six student personality orientations suggested by Holland's (1959) work on vocational choice. Astin (1962a, 1963a, 1963c, 1964a) also conducted a series of environmental research projects at the college level, using the Environmental Assessment Technique (EAT). From these projects he extracted six factors, those of affluence, size, private versus public college, masculinity versus femininity, realistic or technical emphasis and homogeneity. Astin

(1964b) also was able to identify another six factors from
52 input variables at 248 colleges. The six factors were
identified with intellectualism, aestheticism, status,
leadership, masculinity and pragmatism.

Pace (1962c, 1963b) dealt primarily at the college
level where he measured student perception of environment
in five specific areas: practicality, community, awareness,
propriety and scholarship.

Stern (1970) has also conducted much of his research
in the college environment working with the Syracuse Index-
es which are based on items referring to the curriculum; to
teaching and classroom activities, to rules, regulations
and policies, to student organizations, activities and
interests, to features of the campus, to services and facil-
ities, to relationships among students and faculty -- in
short, to the various aspects of environment in high school,
college and evening college which help to give them their
unique cultural atmospheres.

Coleman (1959) has dealt with both the high school and
college areas, but one of his major works was the investi-
gation of high school climates in Social Structures and
Social Climates. Anderson (1968) directed his initial
works in the identification of classroom climate while
Centra (1970) has devised a scale that will match certain
college environmental characteristics to student character-
istics. All of these works will be discussed in detail in

Chapter II, but an indication of how important environmental influences are can be shown by the number of scales that have been devised.

Many scales have been constructed for this type of measurement but some have enjoyed a more comprehensive analysis and are considered to be among the more widely used scales. Among them are the College Characteristics Index Test (CCI) by Pace and Stern (1958), the High School Characteristics Index Test (HSCI) by Stern (1963), the Organizational Climate Description Questionnaire (OCDQ) by Halpin and Croft (1963), the College Characteristics Analysis (CCA) by Pace (1960a), the College and University Environment Scales (CUES) by Pace (1963), the Inventory of College Characteristics (ICC) by Pace (1963a), the Activities Index (AI) by Stern (1956) and the Environmental Assessment Techniques (EAT) by Astin and Holland (1961). Each of these scales attempts to measure a defined characteristic of the environment based on the perception of those individuals who are in that environment. Usually these characteristics develop from two types of presses acting in the environment either 1) as a developmental press which is defined as stimuli which are potentially conducive to self enhancing growth or 2) as control press which includes stimuli that are likely to produce countervailing responses (Stern 1970).

All of the above scales measure perception of the environment. Some of the representative areas that were considered in the development of these scales included:

1. <u>Academic</u> areas such as faculty characteristics, program course content, classroom activities and extra-curricular activities.

2. <u>Administrative</u> to include organizational structure, rules and regulations, physical plant and facilities and student personnel facilities and practices.

3. <u>Student</u> characteristics, community life, extra-curricular activities and study patterns.

General categories that were used to correlate with scale results were student perceptions of intellectual climate, comparisons with size of school, sex, types of control, programs offered, faculty, finances and types of freedom within schools.

Definition of Terms

The above mentioned environmental parameters are some of the areas of concern in the concept of school environment. There seems to be some relationship among these factors, identified in previous research, done primarily on college campuses. The LAAS instrument is an attempt to develop a device to measure perceptions at the secondary school level. There may be other factors that contribute to student perception of school environment, but the following areas are purportedly measured by the LAAS:

Subject Curriculum is defined as student perceptions
of class assignments and their relationship to student
plans for the future. Perception of the availability of
materials for class work are also sought. Students undergo
many types of pressures in the classroom as well as the
school in general. Each day they are required to attend
selected classes that are defined as part of their "educa-
tional experience". The types of courses a student takes,
and the resulting information gained, can provide lasting
impressions on him concerning these educational experiences.
Satisfaction with some of the results of the subject cur-
riculum can result in positive attitudes toward the subject
curriculum. If students perceive that they are participa-
ting in a situation fraught with numerous obstacles and
meaningless programs, they may mirror dissatisfaction which
may be manifested in the development of poor attitudes
towards their class responsibilities. Attempts on the part
of the LAAS to identify perceptions of the subject curricu-
lum, either in a positive or negative vein, will enable
those responsible for the subject curriculum to change and/
or expand the existing offerings.

Pace (1967), Stern (1970), and Astin (1961) identify
the variable of subject curriculum as a significant factor
in determining positive or negative perceptions of the
school environment. Since the subject curriculum is the

basis upon which our educational system presently functions, it is important that we seek specific student perceptions of this area as a means of formulating a more global concept of how all students in a given school perceive the subject curriculum. Positive reactions of students to certain subjects may create student desire to investigate new and interesting horizons while, conversely, negative reactions may diminish interests and create outlooks that discourage student progress.

The investigation of student perceptions is extremely important in the subject curriculum area, because it provides the school with an opportunity to evaluate its curriculum through the eyes of those who are in it. Appendix A contains the LAAS scale. The questions and the area which they cover are identified. This will give the reader an opportunity to review the types of questions asked and to see the format for the total scale.

Administration is defined as the student perceptions of the rules and management operations of the school. An indication of student feelings concerning the administration is a critical issue for those involved in the running of the school.

One of the most significant roles in the field of school management at the present time is that of the administrator. His role is not easily defined but it may

consist of such diverse responsibilities as discipline,
human relations, coordination between factions of students
and teachers, community relationships and other areas
defined only when a crisis breaks. From such a diverse
role can spring many types of student perceptions of that
role.

The student may look upon the administration from dif-
ferent viewpoints, but the prime responsibility of the
administrator lies in his capacity to provide leadership in
the creation and administration of rules and regulations
and in the general running of the school plant. How the
student perceives this responsibility is of extreme impor-
tance. Negative perceptions of this role may result in stu-
dent disregard for the administrator's position and may
negate his effectiveness. It is important, therefore, for
the administrator to obtain information concerning student
perceptions of his role to create more harmonious relation-
ships within a given school and at the same time keep the
lines of student communication open. This would be pos-
sible with the LAAS, which is devised for use in a school
system.

From a positive point of view, a school environment
scale such as the LAAS can be most helpful to the admin-
istrator. Not only will he be able to receive assistance
in gauging student perceptions of administration, but the

mere fact that the administrator seeks to obtain these per-
ceptions from students could also work positively for him.
It should demonstrate to the students that he is willing to
listen to their constructive comments as part of a continu-
ing process in the evaluation of the total school program.

The administrative procedure in high school will affect
the student as part of the environmental press around him.
Frustration with the way things are run can create student
apathy and a resulting loss of goals that have been set by
the student within the school environment. Positive aware-
ness and a desire to be part of the program can build stu-
dent self esteem and create a desire to improve the system.
It is imperative that students be given the opportunity to
be part of this program.

Teacher Influence and Relationship with Students is
defined as the students' perception of the teachers' abili-
ty to understand the student viewpoint when things go wrong
and their ability to 'know their students'. Perceptions of
how students feel about the ability of teachers to handle
fast and slow students, and the desire of teachers to give
extra attention when it is needed are also included in this
concept.

The basic issue, whether students perceive teachers as
being understanding and considerate of the student viewpoint,
is of prime concern. Teachers are the first line in the

educational process. How each student perceives the roles
of his teachers is important. In many cases the general
worth of a teacher may be easily determined by administra-
tive evaluation standards but it may be that individual stu-
dents have difficulty in relating to specific teachers for
various reasons. These difficulties may restrict a more
purposeful exchange of ideas that could be meaningful for
both teacher and student.

The use of the LAAS would give students an opportunity
to present their perceptions of the atmosphere created by
the teacher and may also be helpful in identifying problems
that may be solved if they are able to be identified on a
scale such as the LAAS. The purpose of the LAAS is not to
evaluate teachers individually, but to indicate, in general,
how students perceive teachers in their particular school.
However, the scale would also enable counselors and other
specialists to sit down and discuss with individual stu-
dents their perceptions of teachers with an aim to improving
the perception for the benefit of all involved.

Perceptions of teacher attitudes may be favorable or
unfavorable and may cross different ability tracks in a
given school. It may be possible that college preparatory
course students perceive their teachers in a favorable
light, while those students who are in the general course
do not. It may also be possible that different grades may

reflect different perceptions of the same departments. Any one of a number of these types of information could be of great help in strengthening faculty attitudes and viewpoints toward different sub-groups in the student body. Determination of such problems could result in encouraging the faculty to revise or add programs that will deal more effectively with diverse student populations.

The LAAS could also be helpful in strengthening faculty participation in situations in which faculty members are already aware of the frustrations and concerns of some of the students in some of their classes. The results of the LAAS may provide these faculty members with additional information for seeking administrative support to make course revisions that will provide more stimulating educational experiences for these frustrated students. Another way in which the scale could be helpful in the area of student perceptions of teachers is in bridging gaps in communication that may be prevalent in the school.

Since faculty participation in the educational program is paramount to creating favorable or unfavorable student perceptions, it is essential that this area be included in any scale that seeks to obtain perceptions of school environment. This particular area plays an extremely significant role in how a student perceives his educational system. All scales devised at the college level seek to obtain

student perceptions of the teacher role. It is imperative that these perceptions also be sought at the high school level.

Extra-Curricular Activities deal with student perceptions of the meaningfulness of activities that are available for them to join and whether they desire to participate in these activities. Some of the important extra-curricular activities may be defined as student elections and school events such as dances and athletic contests. The characterization of 'big school events' may be entirely different across different schools. Music may play an important role in some schools while athletic events may be characterized as the prime event in others.

Extra-curricular activities are an important facet of the school environment. These programs give students the opportunity to achieve in and to pursue programs that require different types of expertise. It is possible that these programs provide the needed impetus for some students to continue their educational program.

While most students have the opportunity to participate in activities sponsored by the school, many choose not to do so. Lack of participation in the extra-curricular activities and the subsequent determination of why students fail to participate in them could result in a reorganization of the total program.

Studies have been conducted in recent years that indi-
cate a relationship between student perceptions of environ-
ment and participation in extra-curricular activities (Herr
1965, Coleman 1959). Students who are involved in school
activities may have more of a stake in the school itself.
The type of student who does participate in the program may
have his own perceptions of what is important and what is
not important. Further, it is possible that students at
different levels in a school may perceive the extra-curricu-
lar activities program in entirely different lights.

One of the purposes of the LAAS scale would be to iden-
tify sub-groups of students who participate in the extra-
curricular program or whether the program reaches many seg-
ments of the population. It may also be important to note
that lack of participation in extra-curricular activities
may not be by choice. Many students may wish to partici-
pate but, because of responsibilities and commitments out-
side of school, are unable to do so. It should be important
to the school to know how these non-participants perceive
the extra-curricular program and whether it does affect
their perception of the total school environment, particu-
larly in view of the fact that they are not part of some-
thing that may be deemed important by their peers.

Facilities are defined as student perceptions of class-
rooms, equipment, services and other physical related

aspects of the school plant. Issues such as the availability of books and materials for students are also included. The LAAS seeks, in this area, to obtain student perceptions of whether the facilities of the school help or hinder student progress.

It may be that facilities restrict the outlook of students in a given school. It may also be possible for students to accept their school's facilities because they do not have a basis for comparison with other schools. Nevertheless, there are basic points which educators agree do affect student perceptions of the learning atmosphere. Negative reactions to facilities may show themselves in student frustration with large classes that prevent more individualized attention, with crowded cafeterias that prevent comfortable lunchtime breaks, with small and inadequate libraries, study halls with no place to write and double sessions that may prevent normal school procedures and activities from taking place. In many cases, students accept these situations, not reacting outwardly, but the effect on their learning process in terms of perceived factors that affect learning may be great. Information that will be obtained concerning student perceptions of environment in terms of facilities may enable schools to make corrective changes to create a better learning environment.

Self-Peer Relations may be defined as the feelings that the student perceives about the school: his

satisfaction or dissatisfaction with it. This concept is also concerned with the students' perceptions of whether they are able to express their strong personal beliefs without fear of reprisal. Students are also asked to comment on how they perceive themselves in the school, whether they are doing well or not and if they feel that there is an opportunity for personal recognition and achievement.

Students have strong feelings and attitudes about their place in the school society. Coleman (1959) has characterized numerous types of pressures and demands that are constantly being made on students, both from their peer group and in the environment about them. In many cases, students who are seemingly happy in a school environment may be frustrated and unmotivated by what is going on about them. These frustrations may result in poor perceptions of the school environment, but with outward indications of apparent success and contentment.

Identification of this type of student is critical because it may be possible that his individual talents will fail to develop maximally because of a lack of satisfaction with the environment in which he operates. Counselors, teachers and administrators must always be looking for this type of student, whose apparent outlook differs markedly from his perceived feelings. Much can be done for this type of person if changes can be made to encourage a wider and

more constructive development of his capacities.

Summary. These areas of definition comprise the LAAS
scale. In certain cases there are items and concepts that
relate closely to other scales which were alluded to at the
beginning of the chapter. Further discussion of some of
the studies conducted on school environment will reveal
similarities of variables that affect student perception of
climate. Although the stress on combinations of factors
that contribute to student perception of the environment
differ, there is agreement that there are environmental fac-
tors which do indeed affect human behaviors. Bloom (1964)
sums this thinking quite cogently:

> ....We regard environment as providing a
> network of forces and factors which sur-
> round, engulf and play on the individual.
> Although some individuals may resist this
> network, it will only be the extreme and
> rare individuals who can completely avoid
> or escape these forces. The environment
> is a shaping and reinforcing force which
> acts on the individual.

The direction of this study is to compare student perception
of the environment with some of the variables that may con-
tribute to this perception.

Limitations of the Study

While there has been an attempt to solicit a reasonably
diverse sample of subjects, there is no reason to conclude
that this sample will be truly representative of secondary

school students. The sample which will be studied is com-
prised of students from seven schools in Western Massachu-
setts and three schools from Eastern Massachusetts. While
an attempt was made to obtain schools of various sizes, the
selection of the schools was not done on a completely random
basis. Consequently, caution must be utilized in drawing
generalizations from the findings.

The major thrust of this study, then, is to gain clues
to the elusive concept of environmental perception through
the use of a 30 item instrument. Preliminary pilot studies
with this instrument have indicated that there may be some
value in its use, in that it can discriminate between stu-
dent populations. The extended administration of the LAAS
to the school systems selected for the study is an outgrowth
of the pilot studies that have been conducted during the
past two years. These studies and others will be discussed
in the review of literature in Chapter II.

CHAPTER II
REVIEW OF LITERATURE AND RELATED RESEARCH

Research in the past ten years has begun to concentrate on the concept of perceived environment and how it affects the learning process. As already stated, much of the current work in this area has been done at the college level, using college populations. Only in the latter part of the 1960's has any substantial work been done in the creation of student scales in measuring environments at the secondary and elementary school level.

Bloom (1964) in his book Stability and Change in Human Characteristics reports that relatively little testing has been done to measure the environments in which individuals react. With this framework in mind, he advances the following premises:

1. much individual variation may really be environmental variation,

2. there is a dearth of direct measurements of environment,

3. if we hypothesize a major change in environment will bring about a corresponding change in a characteristic, then again we will need measurements of environment and its its changes, as well as measurement of human characteristics and its changes.

These premises are the basis for the study done with the LAAS and described in this report. Since little work has been done at the high school level in terms of varying

types of high school populations, the attempt will be made
to identify certain characteristics that may contribute to
student perceptions of the school environment in which they
function.

It is reasonable to assume, however, based on Bloom's
premises, that if the individual does undergo certain types
of perceptual and attitudinal changes, these changes were
caused, in part, by factors operating somewhere in the envi-
ronment. Bloom also contends that these changes by environ-
mental factors have the greatest quantitative effect on a
characteristic at its most rapid period of change. When a
child is part of the educational process, numerous charac-
teristics are in the process of rapid change and conse-
quently the factors in the school environment may be some
of the primary causes of student change.

Educational environment may be broadly defined as
encompassing both the home environment as well as the actual
school environment. Bloom (1964) has theorized that it is
likely that the home environment will be more powerful than
the typical school environment in the early school years,
but in later years, as the student passes on to high school
and college, the school environment becomes a more powerful
force than the home setting.

In this context, Coleman (1959) has stated that the
effects of group attitudes upon achievement is similar to
those that occur among prisoners in jail or among workers

in a factory:

> The institution is different, but the
> demands are there, and the students
> develop a collective response to these
> demands. This response takes a similar
> form to that of workers in industry--
> holding down effort to a level that can
> be maintained by all. The student's
> method of enforcing the work restricting
> norms are similar to those of workers--
> ridicule, kidding, exclusion from the
> group.

Coleman (1959) also found that certain characteristics
in a school appeal more highly to the student value system
than other characteristics. In a study of secondary schools,
he found that characteristics of club participation, ath-
letics, dating, cars and relationships with the opposite sex
were factors that influenced student behaviors in the school
climate. He further found that the press of academic suc-
cess varied greatly in the teenage culture. Students who
gave up numerous extra-curricular and athletic programs to
spend more time studying were scorned and ridiculed by their
peers, while those who spent more time participating in the
activities were praised. Coleman also found that academic
success had some bearing on the popularity of boys among
boys and girls among girls, but the main popularity factors
among teenagers of the opposite sex were clothes for girls
and cars for boys.

Additionally, community and parental pressures also
played a role in student behavior. Student populations in

wealthy communities gave little real status to academic achievement despite high interest in college admissions. Coleman also found an interesting paradox in questionnaires given to students and their parents. The results of parental questionnaires indicated a desire on the part of the parents to encourage academic achievement rather than success in extra-curricular activities, but student response on questionnaires regarding what they felt their parents would want indicated that they perceived parental pressures for extra-curricular and club participation as more important than academics.

These seemingly conflicting evaluations may stem from lack of communication on the part of both groups. It does become obvious that individual students must absorb the characteristics of the adolescent culture if they are to be an accepted part of the school environment. Since this type of pressure, according to Coleman, seems to be prevalent at the secondary level, it seems logical that measurement of student perceptions will aid in an analysis of the student environment. This is why the LAAS is being investigated as a basis for obtaining perceptions of school environment at the secondary level. Hopefully, the concepts and ideas expressed in the scale will help to identify and assess some of the issues that students perceive as being important in their school environment. The comparison of the

selected student characteristics and the LAAS total score
result should give us some directions concerning the issue.

With the above comments on environment serving as a
basis for the concept of environmental measurement, we can
now review selected theoretical statements and current envi-
ronmental research to provide a more definitive direction
which will be taken during the course of the present study
utilizing the LAAS. It will be necessary to discuss related
studies covering the following aspects of school environ-
ments: descriptions and definitions of school environment,
the current status of scale development, current research
involving the use of similar scales and the relationship of
the aforementioned factors used in research to the current
study using the LAAS.

School environments - descriptive. The bulk of the
research dealing with school environments has been done at
the college level. Many of the references in this section
will include this type of research with an aim towards re-
fining the concepts and descriptive procedures for use at
the high school level using the LAAS.

The study of campus climate from any perspective is a
relatively new endeavor in educational research. Most of
the work in measuring college climate was undertaken in the
1950's and 1960's. At best, description of college climate
is difficult and elusive. Smith (1955) suggests that every

college has a certain spiritual life of its own which makes it more than an assemblage of teachers, students and buildings. He believes that each college has an atmosphere which is felt, the moment one steps onto it, to be different from other environments and which acts as a powerful force upon all who live within it.

Campus climate to Rice (1965) in analogous to 'quintessence', an intangible entity that gives meaning to students, administrators and faculty. Eddy (1959) pictures campus climate as the sum total of the experience of the student while he holds membership in the college community. One other important aspect that Eddy discusses has significance for the basis of the LAAS study. He mentions the fact that parts of the environment may be positive, neutral or negative and that the status of these factors can, to a great part, be within the control of the college. His premise is that further research must be conducted on school environments so that educators may first identify what factors make up an educational environment and then study the relationship that these factors have with student behavior, individually and as a group. In order to accomplish this research, Eddy (1959) suggests that all components of a school system, large and small, seemingly important and relatively unimportant, must be investigated, understood and used efficiently to reinforce the best which the

educational system has to offer. This aim is no small task because it may be close to impossible to reliably identify all characteristics that make up climate at the present time.

The present study seeks to identify factors which allegedly make up educational climate and correlate them with related student behaviors. For this purpose, the Learning Atmosphere Attitude Scale (LAAS) was developed for secondary schools. The study design called for a comparison of selected student characteristics with student perceptions of subject curriculum, administration, extra-curricular activities, facilities, teacher interest and attitude, and self-peer relationships as recorded by the LAAS. These six factors represent the major areas that have been identified by researchers as contributing to the concept of perceived press by students in a given environment. It may be found that these six factors do not significantly relate with how students behave in their environment and that it will be necessary as Stern (1970) says, "to match each individual with his own needs and with those things that he perceives as press". For now, however, we will try to infer perceived press from characteristic groups of individuals who are responding to an environmental situation.

A word should be mentioned here concerning the basic concepts of need and press developed by Murray (1938).

Press results from a reaction to what is in the environment.
If an individual perceives something and reacts to it, he
has, in effect, reacted to the press of a particular vari-
able. The resulting reaction of the individual to that
'press' is precipitated by a desire on the part of the indi-
vidual to seek some form of closure, or to put it another
way, to satisfy a 'need'. Stern (1970) restates the same
premise when he says that the determination of the needs an
individual has, can only be made from an examination of the
interactions in which he engages.

Murray further distinguishes two types of press; alpha
press - the press that exists identified by scientific
inquiry. It is objective in nature and is identified only
by the trained observer. Beta press, subjective in nature,
is the subject's own interpretation of the environment as
it is perceived by him. The concept of environment in terms
of beta press provides an external reaction to the interna-
lized needs of the individual. The purpose of this study is
to seek the individual's reaction to the environment as
defined broadly by Murray as beta press. The LAAS will seek
student perceptions of selected factors currently existing
in the schools and purportedly creating some forms of press
on the student population.

A number of definitions by researchers who have attacked
the problem of school environment have been developed.

Coleman (1966), from his work at the secondary level and Pace (1963) from his research at the college level, seem to summarize the basic concepts that have contributed to the definition of school environment.

Coleman (1966) states that 'the school environment of a child consists of many things, ranging from the desk he sits at to the child who sits next to him, and including the teacher who stands in front of his class'. His research confirmed the fact that the environment of the school does include a myriad of factors and variables that influence student behaviors from numerous and diverse directions. Peer pressures, community philosophies, parental attitudes and student perceptions of themselves all were identified as contributing factors in the formation of student perception of the environment.

Pace (1963) approached the concept of school environment in the following manner:

> Behavior is typically conceived as determined by an interaction between individual and environment, between person and situation. The characteristics of the stimulus are consequently as important as the characteristics of the individual. The college environment is the stimulus; but it is a very complex stimulus, consisting of professors, books, laboratories, and students. It is a network of interpersonal relationships, of social and public events, of student organizations and extracurricular activities, of housing and feeding, of counseling and curricula, and other conditions which impinge upon the awareness of students.

For him the cumulative factors stated constitute an educational press upon the awareness of students. Pace feels that this psychologically tends to make some kinds of behavior more satisfying and rewarding than other behaviors in a particular environment. In a sense, Coleman also found this to be true at the high school level where the pressure of adolescent sub-cultures tended to affect the goals that students set for themselves.

Significant in either of these definitions is the fact that application of environmental concepts can be applied to most types of school situations. However, there are underlying issues at the secondary school level which strongly suggest that more work must be done with these school populations.

One of these issues is the divergency of the secondary school population as opposed to the college population. We have numerous students in our secondary schools who will never go to college, yet it is important that they have the opportunity to present their perceptions of the school environment. This wide range of student populations can cause significant methodological differences between college and secondary school environmental perceptions and makes work at the secondary level important. To this end, work at the secondary level has been utilizing basic concepts of college environment definitions, but only in an attempt to structure

the work to this different environment. Rizzo (1969) relies
heavily on Pace's (1963) definition of environment in her
attempts to create a scale that measures both teachers' and
students' perceptions of school environments. She sought
to determine whether or not these perceptions of the same
environments differ. They did as we will see in a later
review of her work.

Walberg and Anderson (1967) have approached secondary
school environments from a different perspective: the
classroom climate. They attempted to identify factors that
comprised classroom environment from a structural and affec-
tive dimension. Structural dimensions were defined as the
structure of the classroom in terms of democracy, stratifi-
cation and heterogeneous variables, while affective dimen-
sions were defined as classroom levels of satisfaction,
intimacy and friction. A review of their work revealed
that classroom climates do affect the progress of students.

Attempts similar to those cited above will be made
utilizing the LAAS. Using the six factors identified in
Chapter I, the following definition is presented. Environ-
ment is defined as the sum total of student perceptions of
subject curriculum, rules and regulations, extra-curricular
activities, facilities and teachers, as they interact on
the student. For this study, the perception of the school
environment will be measured using the LAAS as the scale.

It is interesting to note that the above definitions of the school environment concept seem to crystalize themselves as specific factors that are identifiable, in spite of the fact that the populations are different. Whether it be at the secondary or college level, certain characteristics seem to contribute to the definition of a learning environment.

Scale development. Although many scales have been developed which purport to measure school climates, those that were mentioned in Chapter I represent a summary of diversified work done in the field. Since many of the scales have been developed using college facilities and populations, the bulk of the material covered relates to these scales, but the scales dealing with high school populations must also be considered. A review of the scales dealing with student perception of the environment is appropriate so that the different approaches used in the process of evaluation may be understood.

Two scales, The Activities Index (AI) developed by Stern, Stein and Bloom (1956) and the College Characteristics Index (CCI) by Pace and Stern (1958), have contributed significantly to the development of environmental measures. Since the development of the two scales was done using similar populations, the reporting of the research will include both scales. In the research, the AI is characterized as a need scale, while the CCI instrument, using the same basic

concepts, was developed for the purpose of measuring academic press in given schools.

In its present form, the AI consists of thirty, ten item scales which correspond to needs adapted from Murray's need-press concepts, classifying both environmental pressures and characteristic ways in which an individual strives to structure the environment for himself.

Pace and Stern (1958a and 1958b) developed the College Characteristics Index (CCI) as a measure of student perception of the college environment. The scale was primarily concerned with describing aspects of a college situation that would tend to satisfy, support, reward or reinforce an individual who was characterized by a certain need.

The basis for development of the two scales was part of research programs that had a basic aim of increasing fundamental knowledge about college characteristics. Once the characteristics were selected, attempts were made to relate them to student attributes and institutional factors, with an aim towards exploring ways in which the results might promote a more effective education for the students involved.

Each of the variables representing needs perception on the AI were reformulated in a parallel version measuring press of college environment in the CCI. The following formal elements guided the selection of items for both scales:

Academic - faculty characteristics, program course and
content, classroom activities, teaching pro-
cess, examinations, outside preparation of
work, extra-curricular academic programs,
chapel, special programs and other related
areas of press;

Administration - organizational structure, rules and
regulations, physical plant and facilities,
student personnel activities and facilities;

Student - student characteristics, community life,
extra-curricular activities, study patterns
(Stern 1970).

These widely defined areas enabled a large cross sec-
tion of items to be collected for the process of obtaining
student perceptions of these variables. In some cases the
elements of the CCI do not apply to most high schools (i.e.,
perception of chapel, community life pertaining to dormi-
tories) but there were many characteristics that were uti-
lized and included when the High School Characteristics
Index (HSCI) was constructed from the CCI.

In the administration of the AI and CCI to colleges
and universities, student populations across the country in
a cross section of schools were given both scales. From
this sample, reliabilities for the scale were computed using
the Kuder-Richardson formula 20. Results for the AI were
.72 and .71 and for the CCI reliabilities were .65 and .66.

The reliabilities were drawn from a sample population of 4021 cases drawn from 36 programs in 32 schools (for the AI) and from 4196 cases in 59 programs from 51 institutions (for the CCI).

Extraction of first order factors of the AI and CCI was achieved by Sanders (1962). From these procedures, 23 significant factors were obtained, 12 of the factors were obtained from the AI and 11 from the CCI. On the AI, three categories were created from the 12 factors. The categories were: 1) achievement orientation, 2) dependency needs, and 3) emotional expression. Each of the categories had factors which were identified as contributors to the overall student needs profile. Some of the personality factors extracted were the inverse of the same factor in a different category:

Dimensions of Personality (AI)

Achievement Orientation	Dependency Needs	Emotional Expression
Self Assertion	Applied Interests	Closeness
Audacity - Timidity	-Constraint -Expressiveness	Sensuousness
Intellectual Interests	-Diffidence -Egoism	Friendliness
Motivation	Orderliness	Expressiveness- Constraint
Applied Interests	Submissiveness -Timidity -Audacity Closeness	Egoism -Diffidence Self Assertion

-Indicates inverse factor

The CCI factor analysis resulted in a breakdown into two areas which were characterized as Intellectual and Non-Intellectual Climates:

Institutional Dimensions (CCI)

Intellectual | Non-Intellectual

-Work - Play
-Non Vocational
Aspiration Level
Intellectual Climate
Student Dignity
Academic Climate
Academic Achievement
Self Expression

Self Expression
Group Life
Academic Organization
Social Form
Play -Work
Vocational Climate

-Indicates inverse factor

The above listed factors combine on the two scales to build profiles of schools based on needs (AI) or press (CCI) as perceived by students in given schools. Since the LAAS measures student perception of the school environment, the work done with the CCI in measuring student perceptions of the environment merits further discussion.

Stern (1970) in working with college climates characterized by the CCI as Intellectual (High) or Non-Intellectual (Low), made comparisons with certain administrative and organizational differences of schools. Using the variables of size, sex, location, control, program, student activity, faculty, finances and tuition, he compared student perceptions and other characteristics to obtain the following results.

He found that the Low schools had six times as many
students as the High ones, that the ratio of men to women
was equal in the High schools but that there were four
times as many men in the Low schools. He also found that
High schools tended to be in the Middle West and Northeast
and that High schools tended to be private and non-sectarian.
In the aspect of programs, he found that High schools tend
to offer a general liberal arts program with a possible MA
degree for advanced work but that the Low schools generally
offered a variety of technical and occupational programs as
well as more advanced programs. Student activities at the
High schools generally were related to student government
and dormitory social activities while the Low schools did
not deem these as important. Faculty ratios at the High
schools for all professors and students were about 8 to 1,
and 10 to 1 for all full time instructors; at Low schools
the ratios were 15 to 1 for all professors and students and
27 to 1 for full time professors. Tuition at High schools
tended to be higher and resources, although equal in terms
of money were actually lower in the Low schools because of
more students who had to be served.

This type of research enabled Stern to ascertain the
types of need-press constructs that were possessed by the
student body and to ascertain the type of productivity that
has resulted in the makeup of the student body. This

important information would enable schools to see what types of factors seem to be contributing to the student perception of the environment. This process, using different variables, is the direction in which study with the LAAS is going. The variables used in this study involve sex, grade, I.Q., extra-curricular participation, attendance, grade point average, grade placement, all variables that affect student perception of the high school environment.

Further studies involving the AI and CCI have been made. Thistlethwaite (1959a) administered the CCI to 1,000 National Merit Scholarship winners at 36 colleges and noted that the college environment was an important determinant of the student's motivation to seek advanced intellectual training when the comparison criterion for achievement is the percentage of the college's alumni who later earn doctorate degrees. Furthermore, he found that college press differs greatly from school to school. One college environment can be associated with achievement in natural sciences, while another is related to accomplishments in the arts. It is interesting to speculate on whether this type of difference also exists at the secondary level. Different types of environments in secondary schools may also exist because of the different interests that characterize big school events or the community involvement itself. The subject curriculum attitudes may vary widely depending on

what type of stress is put on the need to achieve. In this context it might be well to speculate if the need to achieve is greater in a ghetto school or in a suburban community school.

McPhee (1961) undertook to investigate both the AI and CCI. Her attempt was to answer the question of the relationship between the needs of the individual student and his estimate of the environmental emphasis. This was accomplished by obtaining the general relationships between the corresponding need (AI) and press (CCI) measures and by checking the specific relationship of each CCI item to a relevant personality need scale. Using 100 students in basic psychology classes at Syracuse, McPhee found no significant correlations between the scale scores on the AI and the parallel scores on the CCI. Another finding of her study was that there was no strong relationship between personality need and the student's perception of the environmental press, as reflected by individual items. Although it is not possible to statistically prove this point in regard to the LAAS, it will be assumed, for the purposes of this study, that the perceptions of the scale items in the LAAS will be a reflection of the perceived climate of the school environment rather than a reflection of personality needs of individual students.

A different approach to the determination of environment existed in the construction of the College and

University Environment Scales (CUES) (Pace 1963) which des-
cribes five dimensions of subscales; practicality, communi-
ty, awareness, propriety and scholarship in an attempt to
describe the major features of the college environment by
recording those features which form an impression upon the
awareness of the students. A principal components-varimax
routine was conducted with the CUES that yielded the five
factors that accounted for 88 percent of the correlation
matrix variance. Thirty items represent each factor. The
median correlations between each set of items used in the
final CUES scales and the original factors from which they
were derived were reported as .73, .59, .62, .57, and .73
respectively. Using some 237 institutions of higher learn-
ing with responses from over 15,000 students, reliabilities
were developed for individual scales that ranged from +.81
on the Propriety scale to +.92 on the Scholarship scale.

Interscale correlations on the CUES using 48 schools,
revealed that the practicality score has definite negative
relationships to the awareness and scholarship scores but
that there is a strong positive relationship between aware-
ness and scholarship. It is also apparent that there is a
significant, though moderate (.40) positive relationship
between community and propriety.

From this data, Pace (1963) discusses the point that
CUES could really be defined as a two dimension scale; a

bipolar dimension of intellectuality--non-intellectuality and a dimension related to the community--propriety combination which seems to be concerned with social relationships.

CUES Scale Intercorrelations for 48 Schools

	V	III	II	IV	I
V Scholarship		63	00	28	-58
III Awareness			10	08	-51
II Community				40	28
IV Propriety					-18
I Practicality					

According to Pace (1967) the CUES is concerned only with aggregate judgements of the students and it should be clear that the scale's purpose is to describe institutional environments and not individual students.

Astin and Holland (1961) have created an eight variable environmental assessment index, the Environmental Assessment Technique (EAT), which creates an index based on institutional size, student intelligence and six student personality orientations suggested by Holland's work (1959) which dealt with orientations. The personality orientations measured were realistic, intellectual, social, conventional, enterprising and artistic. Significant correlations involving the CCI and EAT were reported in Astin and Holland's

study done in 36 schools:

EAT	CCI	r
Size	Aggression	.64
Intelligence	Understanding	.70
Orientation:		
Realistic	Humanities,	
	Social Science	-.81
Intellectual	Deference	-.55
Social	Narcissm	.59
Conventional	Passitivity	.42
Enterprising	Humanities,	
	Social Science	.79
Artistic	Sensuality	.69

Further work by Astin and Holland (1961) obtained indices on
each of the six classifications for 335 institutions of
higher education, using information from the U.S. Office of
Education. Starting with the year 1961, Astin began a longi-
tudinal study of the characteristics of incoming freshman at
248 colleges and universities. With the Environmental
Assessment Technique as the scale, he factor-analyzed the
results of the scale administration to 127,212 students.
From this analysis he obtained six major characteristics of
entering classes; intellectualism, aestheticism, status,
leadership, masculinity and pragmatism. These were then com-
pared to environmental factors in two separate interaction
studies, one showing that the aspirations of incoming fresh-
men were congruent with the characteristics of the environ-
ment that they had selected, and the other suggesting that
career choice over a four year period conformed more and
more to the career choice dominant in the student's college

environment (Astin 1965a).

Astin's type of comparison of certain student character-
istics is the basic aim of this study involving the LAAS.
In this particular situation, the identified student charac-
teristics will be sex, grade, I.Q., grade point average,
attendance in high school, participation in extra-curricular
activities, and course placement. These student characteris-
tics that have been identified for the comparison with the
LAAS total score, have not been utilized to any great degree
in comparison studies with other environmental scales, except
in the work that Herr did with the HSCI.

Astin (1964a) also described the characteristics of the
institutions to which the students went. From this data, he
was able to match the personality profile of the student to
the profile of the college and its climate. Conclusions from
the studies mentioned above indicate

1. that institutions represent press on students
   related to goals, curriculum, standards, etc.
   of the institution,

2. that various curricula offer varying levels of
   psychological support to the student and make
   differential demands for conformity,

3. that individuals with certain kinds of abilities,
   choose institutions, vocational goals and curricula
   that they feel are somehow appropriate.

These conclusions should be pursued at the high school level

to see if selected variables also contribute to student perception of the environment at that level.

Work on the High School Characteristics Index has been limited. Current data (Stern 1970) indicated that some 1,043 seniors in 13 high schools have been utilized in an initial factor sampling. Seven factors were extracted from the HSCI scale matrix, accounting for 59.3% of the common variance between them. The seven factors identified were: 1) Intellectual Climate, 2) Expressiveness, 3) Group Life, 4) Personal Dignity, 5) Achievement Standards, 6) Orderliness, 7) Practicalness.

Some work has been done in research utilizing the HSCI. Comparisons have been made by Herr (1962, 1963, 1965); Kasper, Munger and Myers (1965); Herr, Hansen and Knight (1966); and by Herr and Hansen (1964).

Using the HSCI as his basic instrument, Herr (1963) attempted to compare student responses to the 30 scales of the HSCI to student variables of 1) sex, 2) grade level, 3) mental ability, 4) types of grammar school previously attended, either parochial or public, 5) father's education, 6) father's occupation, 7) mother's education, 8) level of extra-curricular participation, and 9) grade point average. He analyzed the data in several ways; he obtained the mean and standard deviation on each scale for the total population and then analyzed what the major demands or emphasis

was that the student population perceived. He then examined
the differences in personal history variables through the
use of x^2. Herr concluded that this procedure would enable
persons to identify the major emphases, the global aspects,
of a particular high school. In connection with the relation-
ship of student characteristics to perceived scores on the
environmental scales, Herr found that perceptions of high and
low G.P.A. students differed, that environmental perceptions
of medium or high participants in extra-curricular activities
also differed from those students who did not participate
actively. He also found that perceptions of press which
discriminate between high and low achievers, participants and
non participants, are also associated with other variables
such as mental ability and sex.

This study is especially important to the study which
will use the LAAS. Ability on the part of the LAAS to dis-
criminate between some of the selected characteristics will
provide further opportunities to explore more fully the rela-
tionship of the LAAS factors to certain student characteris-
tics. This type of study aims to seek the comparisons of
sex, grade, I.Q., grade point average, attendance, extra-
curricular activity participation and program placement.

Although the concept was not considered in the initial
study by Herr, he did (Herr and Hansen 1964) obtain findings
regarding truancy that are worthy of mention. It was found

that there were press differences between students dissimilar
in attendance rate, but matched for I.Q., age and socio-
economic background. Herr and Hansen also found that chronic
truants perceived a higher intellectual climate and more
emotional constraints than those in regular attendance.
Although these findings do indicate some differences in per-
ception by those who have poor attendance, the question of
why this is so, still presents a problem. It may be that
attendance in combination with other factors may be the fac-
tor that results in negative perceptions of school environ-
ment. The LAAS total score of students will be compared to
the attendance rate of the students to investigate this par-
ticular phenomenon.

Stern (1970) suggests that comparison of the AI and
HSCI at the high school level may be a fruitful course of
action. He feels that since the high school is such a diver-
sified type of system, in that it includes students who will
never get to college, students in technical programs and
numerous sub-groups, that it would be interesting to compare
the results of the two scales with selected students. This
study involving the LAAS is attempting to get at part of this
problem. Students have been divided by sex and grade, with
all types of programs included in the sample. One of the
strong points that does favor the study is the inclusion of
a more diversified sample of students than that which would
be available at the college level.

Ramey (1964) found that the High School Characteristics Index Test was able to discriminate between schools that were prejudged to be widely different in terms of environment. Six press scales were identified as having an adequate reliability coefficient for use in the study. The six clusters identified were; Objective-Intellectual (.87), Cultural-Liberal (.85), Defensive-Regulated (.84), Spirit-Achievement (.80), Scientific-Serious (.79) and Hostile-Aggressive (.65). All clusters were found to be significantly different in all schools by using the F value with selected degrees of freedom except in the Defensive-Regulated press. He concluded that the High School Characteristics Index Test was able to differentiate between environments.

Further studies at the high school level, in addition to those by Herr et al. and Ramey, have attempted to correlate student and teacher perceptions of the same environment. Rizzo (1969) developed an adaptation of Pace's (1963) College and University Scales for use at the high school level. The Perceived Environment Profile (PEP) purports to measure high school environments in five dimensions; Practicality, Community, Awareness, Propriety and Scholarship. Using some 700 students and 145 faculty members of six schools, she concluded that a great diversity in environments does exist in secondary schools and that this

diversity is seemingly related to the variables of size, location, composition of student body, dropout rate, college bound aims of seniors, and other types of measureable characteristics. It will be interesting to see if the same types of conclusions hold true in the study using the LAAS and the selected student characteristics.

Rizzo, in the same study, also found that perceptions in school environments by teachers and students differ. This finding is significant in that the purpose of the LAAS is to identify student perceptions of the environment as a means of helping the faculty to understand how the student views the school environment. Assumptions on the part of the faculty that students perceive the same press in the environment as the teacher perceives can lead to difficulty in meeting the needs of the students in the school. Rizzo feels that much work needs to be done at the high school level in obtaining student perceptions of school environments and the results of her study indicate that the teacher-student perceptions of the same environment can be different.

Working with a sample of 800 high school pupils, Anderson and Walberg (1967) used the Learning Environment Inventory to develop measurements of individual classroom environments. At the secondary level, with the LEI, they conducted various studies with the 800 students who took the Harvard Project Physics course during the 1967-68 school year. The LEI scale describes classroom climate among

fourteen dimensions: intimacy, diversity, formality, speed
of class work, environment (availability of books and mate-
rials), classroom friction, class objectives, teacher favor-
itism, class challenge, apathy of the class and class demo-
cracy, cliqueness, satisfaction and disorganization. Each
of the fourteen dimensions contains seven items, selected
by factor analysis, which are statements descriptive of typi-
cal high school classes. For each of the fourteen dimen-
sions, the mean response on the seven items was calculated
to provide a collective or group perception of the class-
room climate. Interclass correlations ranged from a high of
.84 for difficulty and .82 for intimacy, formality and dis-
organization to a low of .43 for the dimension of diversity.

Using the LEI and earlier forms, Walberg (1967) iden-
tified the structural dimensions and affective dimensions of
the high school classroom atmosphere. He concluded that the
structural aspects (i.e., the structure of the classroom as
described by democratic, stratefied or heterogeneous vari-
ables) of the classroom climate as perceived by students
are strongly related to affective perceptions (i.e., per-
taining to classroom levels of satisfaction, intimacy and
friction). He also concluded that research must look at
the many facets of groups climate to understand what is
going on in the classroom.

Anderson (1968) concludes that high school classroom
social climate does not affect individual learning but that

climate properties affect learning differentially for various measures of learning and for students differing in sex and mental ability.

Walberg and Anderson (1967) have also studied the relationship between structural and affective aspects of high school classroom climate measured at mid-year and final grades of students at the end of the year. Conclusions indicate that students who gain most in achievement perceive their classes as socially homogeneous, intimate and working to one goal. These students were well organized and had little friction with their classmates.

The studies of Walberg and Anderson, conducted with PSSC Physics students during a single year, give some indication of a climate that may exist in selected classrooms, but it is impossible to apply these findings to a cross section of student populations which may not come from the academically competitive program such as PSSC Physics. Nonetheless, the functioning of climates within these classrooms does give rise to speculation concerning a broader population of students in many types of curriculum and whether the same types of climates affect students in all types of classes.

Pilot studies with the LAAS. Studies have already been conducted in schools using the LAAS. Kelly (1969) using a 25 item LAAS scale and a sample of 56 high school

students, 28 high phase college preparatory students and 28 low phase work-study students, tested the internal consistency of the LAAS. Using a weighted scores modification of the Kuder-Richardson Formula, he obtained values of .87 and .81 respectively on internal consistency of the two groups.

A second study (Kelly 1969) which utilized a different sample of students was initiated to examine the question of construct validity. It was hypothesized that students from diverse curricula would have divergent attitudes about school. In this study, samples of college preparatory, general and work-study students were used to test the hypothesis. A one-way analysis of variance of mean scores for these groups indicated a significant difference between means. These results suggest that the 25 item LAAS seems to have some degree of construct validity in that it is able to distinguish between groups of students hypothesized to have divergent attitudes about schools.

When students were administered the LAAS on a test-retest basis (Keochakian 1970), the condition produced reliability findings of .87, .80, .82. These correlations were obtained when Form A of the LAAS was administered to 2,772 students, grades 7 through 12, in an initial testing procedure and compared to responses recorded between six and seven weeks later.

In this chapter we have demonstrated ways in which researchers define environment and the scales that have been

devised to measure it. The procedures used in previous
scale development parallel the steps taken in the develop-
ment of the LAAS. In addition, construction of scales such
as the CCI, HSCI and the EAT have included the formal dimen-
sions of academic, administrative and student factors as
necessary items that must be used in the construction of
scales that will seek student perceptions of the school envi-
ronment.

Studies cited, such as those by Stern, Herr, Rizzo,
Astin and Holland correlated selected variables and charac-
teristics of sample populations to scores on scales that
measure student perception of environment. This is the
direction that will be taken in the present research study
with the LAAS using secondary school populations. Although
some studies conducted at the college level may have appli-
cation for students at the secondary level, there is need
for replication and new work in the area of secondary school
environmental assessment utilizing secondary school popula-
tions, since the state of knowledge obtained from environ-
mental studies at the secondary school level is extremely
limited.

The information currently generated from these studies
does indicate that school climates are generally character-
ized by student perceptions of academic programs, adminis-
trative structures and student perceptions of activities
and programs that are non-academic in nature. These general,

and widely defined areas, enable large cross sections of
items to be generated in the measurement of school environ-
ments. Whether the students are in a college setting,
which has a tendency to allow students a wider latitude of
freedom, or at the high school level where certain environ-
mental characteristics may be more important than those at
college, environmental factors seem to play a role in the
perceived observations of students.

The present study seeks to expand some of the thinking
about secondary school environments by using the LAAS. It
may be possible, through the use of the instrument, to look
more closely at the organizational and functional aspects
of the school through the perceptions of students. There
is some evidence that students in selected classes may
affect the growth and progress of each other. There are
also indications of the fact that different schools are per-
ceived by their student populations in different ways. The
purpose of the present study is to compare selected student
behaviors and characteristics with the total score results
on the LAAS which purports to measure student perceptions of
secondary school environments in selected areas.

CHAPTER III
METHODOLOGY

This chapter deals with the research procedures that were used in this study. There is also a description of the instrument and procedures used in analyzing the data.

The instrument. The basic instrument which is used in this study is the Learning Atmosphere Attitude Scale, Form A. This is an unpublished 30 item Likert Scale experimental inventory which purports to measure some dimensions of learning climates in secondary schools. It consists of items that deal with perceptions of students towards teachers, peers, curriculum, facilities, school activities and administration. The scale has undergone four revisions by Ronald Fredrickson with assistance from Simon Keochakian and Francis Kelly, all from the University of Massachusetts. The scale in its original form consisted of 100 items. Through item analysis procedures, the scale was reduced in stages to 25 items. Finally five items dealing with attitudes towards physical facilities were added to bring the scale to its present length of 30 items. Items were written in both positive and negative format to comply with accepted test construction procedures. (see Appendix A).

Use of the LAAS as an experimental instrument was made by Keochakian (1970). In researching student answers to questionnaires stated in opposite form, he used five forms

of the LAAS. Form A, the form used in the present study, was administered to all subjects in Keochakian's sample population. Six to seven weeks later, all subjects selected in a quasi-random fashion, took one of five forms A, B, C, D, or 4 with the intent that 20% of the subjects would take each of the five forms.

While the direction of the study by Keochakian did not involve the actual evaluation of the LAAS as a measure of student perception, certain data was obtained that provided additional information concerning its capacity to measure student perceptions. Reliability Coefficients using the 'coefficient alpha' (Nunnally 1967) resulted in a test-retest reliability for Form A of .87. In addition, Keochakian found that differences in discrepancy scores varied markedly between Junior and Senior High School students and between male and female populations. These findings did indicate that the populations in the sample schools were differing in terms of perceptions of their environments.

Refining the instrument. The procedures for establishing the items currently used in the scale began with some 100 items that were collected from 1100 secondary students (grades 7 - 12) who were interviewed to determine their attitude about their school. From this initial pool of items, the first item analysis was conducted from a scale

administered to 1,200 secondary students. A revised scale
of 50 items resulted and this new scale was administered to
a second group of secondary students. On the new test, the
subjects with the highest total 25 scores and those with the
lowest 25 scores were selected for still another revision of
the scale with a different population.

Statements in this second revision which had a t value
= 1.75 were selected as useable items in a revised 25 scale
test. The t-test procedures which were run on these polar-
ized groups were derived from the procedures suggested in
Techniques of Attitude Scale Construction (Edwards 1957).
After the 25 item scale was devised, five additional items,
purporting to measure facilities of the school, as perceived
by student observations, were added to make the 30 items
now comprising Form A of the scale. The pilot studies con-
ducted with the LAAS scale were discussed on pages 52 and
53.

Scoring. The subjects respond to each item on a five
point gradient ranging from 'strongly agree' (value of 1)
to 'strongly disagree' (value of 5) with an undecided neu-
tral point of 0 (value of 3). The actual responses are
made on a separate DIGITEK DS 1120-C five point answer sheet.

Of the 30 items, 16 are cast in the negative format and
14 in the positive format. In terms of scoring, the re-
sponses to the positive items are reversed so that a high
score represents a positive attitude toward school climate.

The basic issue in this study is to compare the total score on the LAAS with selected variables of student behavior and biographical characteristics. The six sub-constructs which are contained in the scale will be analyzed in terms of their relationship to the student variables also (Appendix B). The present scoring system, however, does not display these subset scores in the presentation of the total score.

Administration. The procedure for carrying out the administration of the LAAS scale followed specific instructions. The instructions were uniform in all cases, but the actual administration location varied with the individual school situation. Whenever possible, an entire school was tested at one time, which was accomplished in four cases. Homeroom teachers served as room monitors and handed out and collected the test materials. Instructions were read over the public address system. If it was not possible to test an entire school at once, subjects were tested in varying size groups by a trained test administrator. Standardized instructions (Appendix C and D) were utilized by all administrators.

At the completion of the testing, each answer sheet was scanned visually to check for various errors and invalidating characteristics. Sheets which had been marked in ink or had light pencil marks were remarked and retained. Sheets with missing names or fictitious names were rejected.

Subjects who had selected the neutral response ("undecided")
on all 30 items or who marked a systematic pattern (for ex-
ample - 1, 2, 3, 4, 5, 4, 3, 2, 1, etc.) were also rejected.
An excessive number of item omissions was also a basis for
elimination. However, if a subject omitted only one or two
items, the "undecided" position was marked for those one or
two items and the sheet was retained. Fortunately, fewer
than 3% of the total number of sheets were invalidated.

Reliability of the LAAS instrument. The initial reli-
abilities of the scale support its use as an experimental
instrument. Pilot tests conducted with samples of secondary
school students which resulted in reliabilities of .87 and
.81 using the Kuder-Richardson Formula 20 have already been
discussed. The reliability of the scale Form A using the
alpha coefficient was .85.

In the present study, the randomly selected population
(N = 568) total scores on the LAAS were analyzed using a
Reciprocal Averages Program (RAVE) which assumes that a
single variable underlies all items in the instrument (in
this case student perception). A maximized reliability of
.87 was obtained. In the initial computation of reliabili-
ty for the sample, the reliability was .85. This result
accounts for 72 percent of the total variance of the two
variables in common. Kerlinger (1964) states that high
reliability is no guarantee of good scientific results, but
that there can be no good scientific results without

reliability. In brief, he states that reliability is a necessary but not sufficient condition for the value of research results and their interpretation.

Validity of the LAAS scale. Presently, the validity of the LAAS scale relies primarily on the extensive contact with students in the original development of the items. In the original pilot testing, performances on the LAAS differentiated between a high performance class and a low performance class. It is difficult to compare the scale in this manner because no other scale is currently in use that measures these particular constructs at the high school level. As noted, Stern (1970) was concerned with the aspects of Intellectual and Non-Intellectual categories in the CCI. Pace (1963) utilized the five areas of Practicality, Community, Awareness, Propriety and Scholarship in his scale construction while Walberg was concerned with the structural dimensions of the classroom using the fourteen factors of the LEI.

In an attempt to compare student responses to the variables on the LAAS, an open-ended questionnaire (Appendix E) was administered to students from three selected secondary schools. The open-ended questionnaire sought unstructured student responses as to how they perceived their school subject curriculum, teacher attitudes towards them, extra-curricular activities program, administration of the school

and relationships with other students in the school. Students were encouraged to respond as freely and as fully as possible to the seven questions asked. This procedure enabled students to respond to the specific constructs in their own way using their own words.

Once the open-ended questionnaire was administered to the students, they were then asked to take the LAAS scale, Form A. The purpose in this procedure was to investigate and establish the concurrent validity of the LAAS and the student's free responses to the variables purportedly measured by the LAAS. Correlations between scores on both scales would establish some measure of validity and would suggest that further research be done with larger populations to see if students' self-reported information is consistent with the results of the LAAS.

Before the open-ended questionnaire was administered to the sample populations, it was given to small pilot group samples. These administrations were made with three separate groups who evaluated the questionnaire after taking it.

Once the questionnaire was completed for administration, it was given to 336 students in three schools. Students were from Old Rochester Regional High School, Mattapoisett, Massachusetts, Wareham High School, Wareham, Massachusetts and Silver Lake Regional High School, Kingston, Massachusetts. The student sample population was chosen from strata

which divided the population by sex and grade.

Table 1

Three Randomly Selected School Populations Used in the
Administration of the LAAS and the
Open-Ended Questionnaire by Sex and Grade

| | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | Total |
	M	F	M	F	M	F	M	F	M	F	M	F	
Old Rochester	8	9	6	9	6	9	6	4	5	6	5	5	78
Silver Lake	0	0	0	0	22	31	26	23	21	27	14	15	179
Wareham	0	0	0	0	12	10	11	8	9	8	11	10	79
Total	8	9	6	9	40	50	43	35	35	41	30	30	336

Administration of the open-ended questionnaire and the
LAAS was done by the author in each of the selected schools.
Both scales were completed by students within a one hour
period in each school. All schools were tested in the same
week. The open-ended questionnaires were then rated by
three independent judges and the mean scores for each indi-
vidual question and the total score on the questionnaire
were used in computing the correlations with the student
LAAS total score and the LAAS sub scales (Table 11).

Agreements between the three judges who rated the open-
ended questionnaire were high and in many cases the mean
score of the open-ended items was the actual score of each

of the three judges. Student responses on the open-ended questionnaire were clear-cut in most cases. Answers to each of the seven questions were rated 3 (positive response), 2 (undecided), 1 (negative response). The individual question scores were then added to obtain a total score for all seven questions. The total score could range from 21 (high) to 7 (low).

Other considerations should also be raised in terms of instrument validation. In their text, <u>Scales for the Measure-</u> <u>ment of Attitudes</u>, Shaw and Wright (1967) suggest:

> We would expect that different schools would have at least slightly different environments. It follows, then, that a valid scale would yield different scores for these groups. If the scale can discriminate to that extent, then it can be considered to have construct validity.

All the schools yielded different patterns of results during the administration of the LAAS. Total mean scores in the sample schools differed and mean scores for sub-scales also indicated varying patterns of student perceptions within schools. These differences would indicate some form of construct validity.

Anastasi (1961) describes face validity as a desirable feature in any test because it refers to what the test superficially measures in the eyes of those who are taking it. It is necessary to have the cooperation of test takers in an undertaking of this nature as well as the interest of the students in completing the scale; their willingness to

take time and voluntarily make constructive comments, would indicate an interest in the scale itself. Schools where the scale was administered also felt that it was essential for them to have the results and an analysis of the scales sent to them for their own use. This further interest in the results of the scale indicates a potential use for school purposes.

Stern (1970) has also discussed the validity of environmental scales. He suggests that there are two types of validation to be considered; validation by equivalence and validation by consequence. The former is usually considered to have been established if there is agreement with other types of appraisals, either objective or judgemental. Validation by consequence refers to a behavior that occurs which was predicted by the appraiser.

Stern (1970) further states that in personality measurement there is no clear consensus regarding appropriate standards for the appraisal of perception of environment. In order to compensate for this problem he suggests the following basic approaches:

1. an analysis of the scale to determine its capacity to discriminate between subjects classified in groups on the basis of some discrete, predetermined external criterion such as occupation, avocation or major field;

2. a process of specifying in advance the behavioral consequences likely to be associated with given scale scores;

3. an inquiry into the relationship between person
   and environment to be taken into account in the
   prediction of behavior.

The procedure used in the LAAS study involves the use of
the above approaches. The specified population in this
study comprised students in the secondary (7 - 12) area and
the characteristics of behavior selected are only some of
an inumerable group of potential variables.

Pace (1963) characterizes three factors that influence
student perception of the environment:

1. characteristics of the perceiver,

2. the perceiver's familiarity with the school,

3. the perceiver's particular role in the school.

These issues are considered as part of the basic con-
struction of the study involving the LAAS. The perceiver
is identified by the selected variables used in the study,
i.e., sex, I.Q., G.P.A., attendance and course; he is iden-
tified in terms of his familiarity with the school by the
time he has spent in it (grade) and his intensity of extra-
curricular activity participation which combined with some
of the previously mentioned variables can build some pattern
for establishing the student's particular role in the school.
It must be stressed that the variables used in this study
are not considered to be the only constructs that may serve
to establish the capacity of the perceiver to properly pre-
sent observations of school climate. This study is

restricted to these variables as possibly significant, but not necessarily the only contributors to the building of a student profile of perception of the school climate.

The Sample

The schools. Six secondary schools in Western Massachusetts were involved in the study described in this report. Three junior high schools, Birchland Park Junior High School, East Longmeadow, Massachusetts; Spencer Junior High School, Spencer, Massachusetts, and St. Agnes Junior High School, Dalton, Massachusetts provided the junior high school populations. The three high schools involved in the study were East Longmeadow High School, East Longmeadow, Massachusetts; David Prouty Senior High School, Spencer, Massachusetts, and Waconah Regional High School in Dalton, Massachusetts. All of the schools have been assigned different names for the purposes of this study. The selection of the schools in this study provided diversity of size and type of school. Additional consideration was also given to the fact that there was a wide range of socio-economic levels in the selected communities. The selected schools represented both a suburban and rural population. A large urban school was not included in this study because a single urban school would not have provided data that would make it possible to compare different schools. It would be better to take an urban

population across cities and compare results with similar schools in this category.

All of the schools which were selected for the study agreed to participate. No school declined to participate. In all cases, the cooperation and interest of the schools served to maximize the study procedures in a favorable manner.

Table 2

Six Selected School Populations Described by
Enrollment, Sample Size, Grades, Type and Location

School	Enrollment	Sample Size	Grades	Type	Location
Brookdale Place	500	107	7 - 8	P	Suburban
East Langston	731	156	9 - 12	P	Suburban
Premier	535	111	9 - 12	P-R	Rural
Southwestern	262	54	7 - 8	P	Rural
St. Mary's	51	51	7 - 8	I	Suburban
Western	419	89	9 - 12	P-R	Rural

I - Independent Private
P - Public School
R - Regional School

The student sample. Selected students were stratified by sex and grade in each of the schools, given ID numbers

and then randomly selected from a table of random numbers.
The number of students by school are reported in Table 2. At
least 20% of the population was chosen except in St. Mary's
Junior High School where all students in the population
were included. The school, a small parochial junior high
school, had a total of 51 students in grades 7 and 8 and it
was felt that a 20% random sample of the group would have
been too small to facilitate comparisons among schools. The
total number of students in this school was smaller than any
of the other randomly selected populations. The mean score
of the randomly selected population was close to the total
population mean score. The mean total score for the random-
ly selected population was 95.6761 while the total popula-
tion mean total score was 94.84. This will be reported in
more detail in Chapter IV, Table 5.

Identification of variables. The purpose of this study
was to ascertain if there are relationships between selected
student characteristics and the total score of the LAAS.
The selected variables were 1) sex, 2) grade, 3) intelli-
gence quotient, 4) grade point average, 5) attendance, 6)
intensity of extra-curricular participation, and 7) course
placement. The data was analyzed for the total school popu-
lation as well as for each individual school.

Information about each of the subjects used in the ran-
dom sample was collected at the school the student attended.

A data information sheet was developed for collecting information from the schools' permanent cumulative record on each student in the selected population (Appendix F). All of the data was gleaned from the official cumulative records by the author. Whenever there was conflicting or ambiguous information, the data was checked with the counselors or administrative staff at the school for resolution. All data was classified as confidential and personal and was handled accordingly.

Intelligence Quotient. The I.Q. for the selected students was taken from the school records. In all cases the tests were administered within the last two years. The Lorge Thorndike I.Q. test was administered in three of the schools and the Otis I.Q. was given in the other three. The range of scores for the two tests were similar and since comparisons were made within schools as well as across schools, no conversions were made with the I.Q. scores.

Grade point average. Calculations of grade point averages in the selected schools differed. Two of the institutions used a grading system of 0 - 4 (4 is equal to A) while four involved in the study used point averages (90-100 A, 80-89 B, etc.). In order to equalize the grade point averages for all schools, the grade averages were changed to z-scores and then ultimately to t-scores. This process involves a computation of the mean for each school, the

standard deviation of the selected schools and then the computation of a z-score by use of the computational formula:

$$z = \frac{x - \overline{x}}{s}$$

and then converted to t scores: 10z + 50.

Attendance. Attendance was collected from the school records and was determined by the number of days absent from school. This type of information was not difficult to collect and it was straight forward in terms of how many days students missed in ratio to a school year of 180 days.

Extra-curricular participation. Extra-curricular participation was based on a rating system of High (3), Average or Medium (2), and Low or no participation (1). Since the intensity and importance of extra-curricular participation varies across schools, a list of all activities of each student was gathered. The procedure for gathering this data was from cumulative records, requests that individual students complete an activity participation form and a check with the guidance counselors for any other significant participatory activities of the selected students (Appendix G).

Once the list was made, counselors or administrators in the selected schools rated their school's student participation only on the basis of the activities listed. No names were provided for the rating by guidance and administrative personnel. After the ratings were completed, the student names were given to the counselors and they again

selected the top and average participants. Any discrepancies between the ratings were discussed and a final extracurricular rating was then established and used in the data analysis.

Course assignment. Course assignment was based on the subjects that the student was currently taking and the courses from last year when the LAAS was administered. If there were any questions about the actual placement, the decision was made by the counselor in the school. Because of the small number in a variety of programs, it was concluded that the rating of college and non-college was the most feasible.

The open-ended questionnaire. As was mentioned earlier in this chapter, the open-ended questionnaire was constructed from the items that comprised the LAAS (Appendix E). The selection of the sample was made by the author from three schools in Eastern Massachusetts. One was a regional school, grades 7 through 12, another a town school grades 9 through 12 and a third a regional senior high school, grades 9 through 12. A random 10% to 15% sample across grades and sex were made for this study. The purpose of this research was to establish concurrent validity with the LAAS total score.

Selected students were given the open-ended questionnaire by the author and encouraged to answer the questions as fully and as truthfully as possible. No one was rushed

to complete the questionnaire. An extra sheet of paper was made available in case there was insufficient room to answer the questions. When this procedure was completed students were asked to comment on the test folder about the concept of the scale. Most students felt that the scale was a good idea and many suggested that the results be given to the school administrators.

The scale results were correlated to see if there was a similarity between student responses on a non-structured, open-ended scale with the LAAS. Similarity in responses would support the idea that the LAAS, in terms of administration and correction time, is a far easier instrument to administer and correct.

Procedure for analysis. A series of correlations using the Statistical Package for the Social Sciences (SPSS) was the initial program used to analyze the data. The program computed mean scores, standard deviations and all essential information on each of the independent variables used in the program. In addition, all data on the dependent variable, the LAAS total score, was also computed.

Once the data was gathered by the SPSS program, each of the variables were then correlated with each other, both within and across schools, so that it was possible to see relationships throughout the study. Levels of significance for all relations were also computed.

Another procedure in the analysis involved the use of the BMD02R program which provided the generation of a stepwise multiple regression involving all of the independent variables in the study, sex, grade, I.Q., G.P.A., attendance, extra-curricular participation, course placement, with the dependent variable, the LAAS total score. Two types of analysis were run. One involved the aforementioned variables and each of the six schools involved in the study as a variable. This analysis enabled the influence of school as a factor in the student perception of environment to be determined. A second analysis involved only the high schools with an additional variable of course placement. The junior high schools were not involved in the analysis of course placement because none of the junior high schools involved had that type of program.

Yet a third type of analysis involved direct and stepwise regressions in each of the sample schools through the use of the Cornell University Multiple Regression Analysis program (MUREG). Each of the schools was analyzed comparing the variables in the study with their relationship to the LAAS total score.

Levels of significance for all step-wise equations were computed through the use of t-scores (McNemar 1962) computed in the following manner:

$$t = \frac{b_{X_j}}{SE_{b_{X_j}}}$$

(i.e., a t test which divides the obtained beta coefficient by the standard error of the beta)

Once the t-scores were computed their levels of significance were checked at the .05 level. All correlations used in this study were checked at the .05 level of significance.

The analysis of the data involving the open-ended questionnaire utilized the SPSS program with the Pearson Product Moment correlations. This straightforward check on the relationship between the two instruments was one step in providing some data relative to the concurrent validity of the LAAS scale.

The hypotheses. The hypotheses to be tested follow in the null form:

1. There will be no relationships between the total score of student responses on the open-ended questionnaire and the LAAS total score;

2. There will be no relationship between the sex of students and the LAAS total score.

3. There will be no relationships between the grade placement of students and the LAAS total score;

4. There will be no relationships between student I.Q. and the LAAS total score;

5. There will be no relationships between student
   grade point average and the LAAS total score;

6. There will be no relationships between the
   number of days a student is absent and the
   LAAS total score;

7. There will be no relationships between the
   intensity of student participation and the
   LAAS total score;

8. There will be no relationships between course
   enrollment of high school students and the
   LAAS total score.

Summary of Limitations

Little information has been gathered concerning the
LAAS as a valid instrument. The computed reliabilities
indicate that its use as an experimental instrument is war-
ranted. The validation of the instrument in terms of its
acceptance by those who have used it and the data thus far
collected in its support, indicated that a wider range of
administration was warranted. Whether the scale items and
the constructs which make up the scale are actual measures
of student perception of the school environment is, at this
point, a subjective judgement.

The results of the study can be generalized to the
schools that were part of the study but generalization

beyond that point is not suggested. Since the LAAS does seem to differentiate between schools, it would seem that student responses within a school would vary according to variables which have been suggested in the literature as relevant to student attitudes about his educational environment.

C H A P T E R   I V
FINDINGS AND DISCUSSION

This chapter presents an analysis of the LAAS as the
basic instrument of measuring student perceptions of school
environment. A comparison of the LAAS total score results
across the six schools involved and an analysis of each
individual school will be included.

The basic goal of this study was to compare the
results of the LAAS total score with selected variables
both across and within the six schools involved in the study.
The reason for both types of analysis was that, as the study
progressed, it became apparent that differences between
schools were not only reflected in the variables that were
selected, but also in the LAAS total score results.

Since different types of factors were creating a
unique profile of student perception within the school it-
self, it was felt that individual school results would be
beneficial in showing the different dimensions of the pro-
files. Hopefully the diverse results of individual schools
will give school counselors and other interested school per-
sonnel ideas on how they can best analyze data for their
own individual schools.

Composite data. A summary of all variables by school
is included in Table 3. This information serves to charac-
terize the types of populations used in the study so that

Table 3

Total and Mean Scores by School of all Variables

School	Sex M	Sex F	Grade Pl.		I.Q.		G.P.A.	Numb. Absences	Extra-Curr. Hi	Avg	Low	Course Col.	Non-C.
Brookdale Place J.H.S. 107	54	53	7 -- 49	8 - 58	M* 113.8 SD* 15.0 R* 70-142		50.5 10.2 23-68	7.2 6.3 0 - 35 9.3% = 0**	19	29	59	None	
East Langston 156	80	76	9 - 45 10 - 42 11 - 42 12 - 27		M* 115.0 SD* 13.4 R* 77-142		49.7 10.0 30-75	10.5 8.4 0 - 42 9.6% = 0	16	42	98	107 –	49
Premier 111	55	56	9 - 32 10 - 31 11 - 24 12 - 24		M* 106.2 SD* 11.3 R* 81-131		49.8 9.8 29-76	9.3 10.0 0 - 60 9.9% = 0	12	17	82	54	57
Southwestern J.H.S. 54	26	28	7 - 28 8 - 26		M* 101.00 SD* 11.3 R* 72-123		50.6 10.2 28-72	7.6 7.9 0 - 47 7.4% = 0	5	29	20	None	
St. Mary J.H.S. 51	24	27	7 - 33 8 - 18		M* 111.6 SD* 15.2 R* 65-145		49.5 9.8 28-65	5.2 3.3 0 - 14 11.8% = 0	17	24	10	None	

Table 3 (cont.)

	Sex		Grade Pl.		I.Q.	G.P.A.	Numb. Absences	Extra-Curr.			Course	
	M	F						Hi	Avg	Low	Col.	Non-C.
Western 89	43	46	9	– 30	M* 112.6	50.0	8.9	35	18	36	61	28
			10	– 22	SD* 12.3	9.9	10.5					
			11	– 20	R* 84–144	27–77	0 – 61					
			12	– 17			6.7% = 0					
TOTALS 568	282	286	7	– 110	M* 111.1	50.0	8.6	104	159	305	222	134
			8	– 102	SD* 13.9	9.9	8.5				212 J.H.S.	
			9	– 107	R* 65–145	23–77	0 – 61					
			10	– 95			9.2% = 0					
			11	– 86								
			12	– 68								

*SD – Standard Deviation
*M – Mean
*R – Range
** – percent with no absences

results presented can be better understood. The information
across schools yielded counts for the dichotomous variables
and mean scores and standard deviations for the continuous
variables. All of the data in Table 3 are divided both
within schools and across schools.

A total of 568 students were randomly selected for the
study. Selection was made on the basis of a stratified ran-
dom sample by grade, sex and course. A total of students
by grade is listed in Table 4.

Table 4

Total Sample Populations Across
Schools by Grade and Sex

Grade		Male	Female
7	110	52	58
8	102	52	50
9	107	56	51
10	95	44	51
11	86	43	43
12	68	35	33
TOTAL	568	282	286

Of the number of students in the sample from the three
junior high schools and the three senior high schools, 212

students were from the seventh and eighth grade populations in the junior high schools and 356 students were from the nine through twelve populations of the senior high schools.

The mean I.Q. for the groups across schools was 111.1 with a Standard Deviation of 13.9. The I.Q. across schools tended to be higher than the approximate national average of 100, but three of the schools were in locations which normally yield higher I.Q.'s. Brookdale Place and East Langston are both in a community which has many professionally oriented residents and St. Mary's is a parochial Junior High School which has a tendency to be selective. These results tended to increase the overall mean scores across the schools involved. The minimum I.Q. across all schools was 65 and the maximum was 145.

The Grade Point Average across schools, computed as T-Scores to equalize the grading system between schools, had a mean score of 49.9 and a median score of 50.0. The Standard Deviation for all schools was 9.9. The range for the T-Scores was from a minimum of 23 to a maximum of 77.

The number of days absent varied among schools (Table 3). However, the mean number of days absent was 8.6, while the median was 6.1. The range of days absent was from a high of 61 to a low of 0. Of the total population used in the study, 52 students or 9.2% had no days absent during the school year 1969-70, the year when the data were collected.

The intensity of extra-curricular participation across schools revealed that 104 students were actively engaged in extra-curricular activities while 305 were not. Another 159 students were moderate participants in extra-curricular programs. How these students were rated is explained later in this chapter.

The information collected on the variables both across and within schools produced wide ranges of data. At no one school did there seem to be an imbalance of samplings that was contrary to the observable total school population. From the data collected in the sample, it would seem that most representative segments of the school populations were included in the study.

Learning Atmosphere Attitude Scale results. The data concerning the LAAS (Table 5) shows a breakdown by individual schools and across the schools. Mean scores and standard deviations are included. The potential range on the LAAS is from a negative-low score of 30 to a high or positive score of 150. The mean score across schools was 95.7 with a standard deviation of 16.2. The minimum score obtained in this study was 45 while the highest score was 135. Median score for the LAAS across schools was 95.6.

Although evaluation and interpretation of the sub scales of the LAAS is not the prime aim of this study, the information presented in Table 5 is worthy of note. Students in

Table 5

LAAS Sub Scale and Total Score Mean Results Across and Within Sample Schools

Schools	Sub Sc.1 Self Percep	Sub Sc.2 Teachers	Sub Sc.3 Facilities	Sub Sc.4 Extra-C.	Sub Sc.5 Administ.	Sub Sc.6 Curric.	Total	
Brookdale Place	25.2	21.5	13.3	9.7	4.4	18.6	91.8	Mean
	4.8	5.3	3.3	2.7	1.9	4.7	17.0	SD
East Langston	26.0	20.3	14.3	9.8	4.6	18.5	93.4	Mean
	4.8	4.7	3.0	2.5	1.8	4.3	15.7	SD
Premier	24.7	20.1	15.5	9.5	4.1	20.0	93.9	Mean
	4.3	4.6	2.7	2.8	1.9	3.8	14.2	SD
Southwestern	25.0	21.5	12.9	9.2	5.2	20.4	92.2	Mean
	3.9	4.4	3.2	2.7	2.0	3.8	14.6	SD
St. Mary's	28.5	25.8	16.9	11.9	5.9	22.2	111.2	Mean
	3.9	4.3	2.7	2.3	1.7	3.8	13.7	SD
Western	26.2	21.7	15.8	10.0	5.0	19.8	98.4	Mean
	4.5	4.4	2.4	2.5	1.9	4.0	14.7	SD
TOTAL	25.8	21.1	14.7	9.9	4.7	19.5	95.7	Mean
	4.6	4.9	3.1	2.7	1.9	4.3	16.2	SD

each of the schools interpreted the school environment in a
different way. It might be possible to construct school pro-
files of the sample schools from student perceptions of the
environment using the IAAS sub scales.

For example, on Sub Scale 1 (Student Perception of Self)
students at East Langston, St. Mary's and Western scored
above the mean score across schools while Premier, South-
western and Brookdale Place had scores below the mean. It
is possible that students who scored above the mean in the
sample schools could have a more positive perception of
their place in the school environment than those who scored
below the mean scores when the LAAS is administered. Further
work should be considered in evaluating this data, but
other sub scale results also presented opportunities for
similar observations.

Most schools were close to the mean score in Sub Scale
2 (Student Perception of Teachers) except for St. Mary's
which had an extremely high rating of teachers compared to
the other schools. The fact that St. Mary's is a private
school may have influenced student perception in this area.
Interestingly, although all other schools were close to each
other, ratings tended to be negative in East Langston and
Premier, and slightly positive in all other schools except
St. Mary's. All schools tended to rate facilities (Sub
Scale 3) in a positive manner except Southwestern which had

the least positive ratings of all schools. By observation,
this school seemed to have the poorest facilities of the
schools involved in the study.

Students at St. Mary's and Western rated their extra-
curricular activities (Sub Scale 4) higher than the mean
scores of all schools and Southwestern was the lowest rated
school in terms of its extra-curricular program. Discussions
with teachers and administrators at this school indicated a
lack of program in extra-curricular areas. This was not
noted by staff members at the other schools.

Ratings by students of administrative policies and regu-
lations (Sub Scale 5) tended to be negative in all schools.
The school which had the highest mean score although it was
still negative was St. Mary's, the private school. Students
in the sample schools tended to rate administrative policies
in a negative manner in spite of overall tendency toward
positive perceptions of the school climate.

Students perceived the subject curriculum (Sub Scale
6) in a positive manner in all schools but there was a wide
difference between the school mean scores. St. Mary's had
a mean score of 22.2 while East Langston had a mean score
of 18.5. The median score for the subject curriculum area
was 18.0.

From the above information, it is possible to see dif-
ferent trends emerging in the selected sample schools. The

schools involved had varying perceptions of constructs that comprise the LAAS and these differences helped to create unique profiles within the schools themselves. The results in Table 5 suggest that more work must be done in these areas if student perceptions of specific sub scales are to be analyzed. Since the primary purpose of this study was to evaluate the total score results of the LAAS with student characteristics, further analysis of the sub scales will not be included. From the information presented, however, it is reasonable to conclude that students in different schools have different perceptions of constructs that purportedly make up their school environment. Further analysis of the total score data collected in this study, and the selected student characteristics, will reaffirm this observation.

Analysis of data. Analysis of the total score of the LAAS with the selected variables utilized various forms of individual correlations and multiple regression analyses. The selection of multiple regression techniques was made when it became apparent that Pearson Product Moment correlations, although providing significant levels of correlation, were not providing the independent correlations between the variables and the LAAS total score that were being sought. The correlations between the LAAS total score and the selected variables across all schools ranged from .37 to -0.17. Further analysis within schools continued to

provide significance at the .05 level and beyond for many of the correlations (Table 6).

Reference to individual school profiles will utilize Table 6 only as a measure of comparison. The use of the Step-Wise Multiple Regression was more powerful in crystaliz-ing the relationships between the variables and the LAAS total score.

The purpose of the step-wise regression was to deter-mine the order in which variables were added to the multiple regression equation. This procedure enables the observer to determine which variables are the most important in pre-dicting LAAS total score and in indicating the level of sig-nificance of the selected variable in relation to its corre-lation with the LAAS total score.

When the variables are added to the equation in the step-wise process, the first step in the procedure includes only one independent variable; the one most highly correlated with the dependent variable which, in this case, is the LAAS total score. The process continues with the second step adding another variable, not related to the first variable, which is the next highest correlate with the dependent vari-able. Variables are added to the equation until a point is reached at which a new variable does not increase the multi-ple correlation (R) by a statistically significant amount.

Wightman (1968) states that although the last

Table 6

Correlations by School of LAAS Total Score with Selected Variables

School	Sex	Grade	I.Q.	G.P.A.	Attend.	Ex.-Curr.	Course
Brookdale Place (107)	-.10	.06	.11	.26**	-.07	.14	-----
East Langston (156)	.12	-.03	.25**	.45**	-.15*	.22**	-.15*
Premier (111)	.14	-.11	.12	.41**	-.24***	.25*	-.18*
Southwestern (54)	-.07	.12	.31*	.34**	.01	.20	------
St. Mary's (51)	.27*	.06	.51**	.58***	-.06	.41**	-----
Western (89)	.05	-.20*	.17	.43***	-.19*	.04	-.30**
Across all Schools (568)	.07	-.09*	.19**	.37***	-.17**	.25**	-.20**

* P < .05
** P < .01

significant step is chosen by a predetermined process, it is still of interest to follow the development of the equation from the beginning to the end. As each step is added, a perusal of weights will reveal alterations, sometimes drastic, in the weight assigned any one variable from one equation to the next.

The cutoff point, mentioned in the preceding paragraph, that determined the last significant step in the equations, was made on the basis of F-ratios based on the increase in R^2. An F ratio of 2.5 was selected as the stopping point for each of the step-wise regressions. Any scores lower than that point add little to the equation. Nevertheless, all steps in the step-wise regressions will be given to show the order of appearance for all variables used in the study.

Two step-wise regressions were run involving the LAAS total score with all selected variables across schools since schools in the study were both junior and senior high schools causing the course placements to be different, particularly in the area of program. All three high schools had various course placements which segregated students into college, business, general and vocational or practical arts programs. This was not true of the junior high schools where groupings may have been made because of academic ability but not as a specific course placement as described

for the high schools. To differentiate between the schools involved, it was necessary to run a second step-wise regression and include the variable of program across all high schools (determined as college or non-college) for the sample population. The second run was then made without the influence of the junior high schools which had no college and non-college programs. In addition, a multiple direct regression program, regression on LAAS for each school (MUREG), was run with the LAAS total score and all selected variables within schools.

The initial step-wise regression (Table 7) included all of the selected variables and each school in the study as a separate variable. The reason for this was to separate, as much as possible, the specific influence of each school as a contributor to the correlation with the LAAS total score. The resulting equation (Table 7) did include certain schools as strong contributors to the correlation with the LAAS total score.

All steps included in the reporting of the step-wise equation (Table 7) were significant contributors to the variance of the LAAS total score. Across all schools, the most important contributor was grade point average. In terms of a student's score on the LAAS, his grade average in school will be the single most important contributor to the score that he obtains on the LAAS. The grade point

Table 7

Step-Wise Regressions Across All Schools, Variable Names,
Beta Weights and F Ratios for Each Step

Step No.	R	RSQ	G.P.A.	St. Mary's	Western	Extra-Curricular	Brookdale Place	Grade	Southwestern	Sex / Attendance / I.Q. / East Langston	F Ratio Step
1	0.3682	0.1356	.60								88.7794
2	0.4808	0.2311	.60	17.4							70.2157
3	0.4945	0.2446	.60	18.2	5.2						10.0329
4	0.4984	0.2484	.57	17.4	4.5	1.4					2.8491
5	0.5019	0.2519	.57	16.7	3.8	1.5	-2.5				2.6339
6	0.5046	0.2546	.57	14.8	4.0	1.6	-4.2	-0.7			2.0454
7	0.5079	0.2580	.57**	12.1**	3.4*	2.0*	-6.6**	-1.4**	-4.5		2.5306
8											0.8780 NS

* P < .05
** P < .01

average does cross course enrollment and all grade boundaries.
Students who were in all grades and in college and non-
college programs seemed to be governed in their reported per-
ception of the school by the grades they received in school.
It is important to note that when grade point averages were
computed, no consideration was given to the weighting of
grades. The only consideration was that all courses were of
equal credit. For example, Algebra II, Bookkeeping II and
General Mathematics were all equal credit full year courses
in the schools utilized in the study. Consequently, student
grades in all three courses were treated equally in the com-
putation of the T-scores.

The second most important variable in the initial step-
wise equation was one of the schools in the study, St.
Mary's Junior High School. The suspicion that selected
schools were affecting the correlation between the indepen-
dent variables and the LAAS total score was confirmed as
four schools were identified as contributors in the equa-
tion, although only three were significant. St. Mary's had
the highest mean score of all schools on the LAAS total
score and also had high averages on most of the other con-
tinuous variables. One other school which entered the equa-
tion at a significance level was Brookdale Place Junior
High School which had the lowest mean score on the LAAS
total score. Brookdale Place was the fifth variable to

enter the regression. Western had some unique student characteristics that played a part in the equation process and also had the second highest mean score.

Two other variables were found to be contributing to the first step-wise equation. Intensity of participation in extra-curricular activities was significantly related to the LAAS total score across all schools, while grade placement also was related (negatively) to the results of the LAAS total score.

From the first step-wise regression equation, it is possible to conclude that in the schools used in this study, grade point average, extra-curricular activities and certain selected schools are variables that significantly contribute to the total scores students obtain on the LAAS. Because of the fact that selected schools did affect the student responses on the LAAS, it was felt that an individual analysis of schools was important to differentiate the types of student responses within given schools.

A second step-wise regression was run to ascertain the importance of course placement in relation to the LAAS total score. Since the Junior High Schools did not have a course placement concept, it was necessary to run the equation with only the high schools included. The analysis produced a similar result, in spite of the college and non-college addition to the equation (Table 8).

Table 8

Step-Wise Regression Across High Schools
Variable Names, Beta Weights and
F-Ratios for Each Step

F Ratio	Step No.	R	RSQ	G.P.A.	Western	Grade	Extra-C.	Attn.	I.Q.	Course
79.5598	1	0.4284	0.1835	.65						
7.6337	2	0.4481	0.2008	.65	4.6					
4.3850	3	0.4589	0.2106	.65	4.5	-1.4				
6.7328	4	0.4748	0.2255	.61**	2.9*	-2.0**	2.7**			
0.9740 N.S.	5									

* $P < .05$
** $P < .01$

For the three high schools, the most significant contributor to the equation continued to be grade point average but the variables of grade placement and extra-curricular participation were reversed in the order of their significance in the equation. One of the reasons for this shift is that grade placement became a more significant predictor of student perception of the school environment as students in the sample schools reached the higher grades. The higher the grade placement, the less positive were student perceptions of their environment on the LAAS total score. Since this trend continued in all four grades at the high school level, the variable of grade placement appeared as a more powerful contributor than intensity of extra-curricular participation.

One school, Western, appeared as the second most important variable in the equation, appearing before both grade placement and extra-curricular activities. Since Western had by far the highest mean score of the three high schools (Table 3), it was reasonable to assume that it would appear as a significant variable. The other two high schools had mean scores close to the average scores across all schools. Consequently, they did not appear as high contributors when combined with all other variables used.

It would appear that across all high schools in the sample group, grade point average is the most significant

predictor of student perception of the school environment using the LAAS total score. Other variables that are predictors of student perception of the environment in the high schools, using the LAAS, were grade placement and the intensity of extra-curricular participation.

The continuing appearance of selected schools in the step-wise equations, in the case of the above result, Western, suggested that one of the powerful predictors of student perception of the environment is the individual school. Since the LAAS is constructed with the purpose of providing school profiles concerning student perception of the environment, it was felt that individual school analyses using the LAAS total score and all variables would be useful.

The analyses of the individual schools involved the Cornell Multiple Regression Analysis (MUREG). This program carries out the standard statistical analysis of multiple regression for any number of variables up to 140. In the case of the individual schools involved in the analysis, the eight variables were used, seven independent variables of sex, grade, I.Q., grade point average, number of days absent, intensity of extra-curricular participation and course placement, and the dependent variable, the LAAS total score.

Two types of regression analysis were made. First, a direct regression, in which given observations on a

dependent variable, in this case the LAAS, and the aforemen-
tioned independent variables, estimated the regression of
the LAAS on all independent variables; and secondly, an
analysis using a step-wise regression which chose, in succes-
sion, the most important independent variable accounting for
the most variation in the LAAS and which continued to analyze
the variation in a descending order of importance until the
F values become non-significant.

Each of the schools involved in the analysis was subjec-
ted to both types of regression. Table 9 shows the results
of the direct regression and Table 10 the findings in the
step-wise process. In the vast majority of cases, both of
the analyses resulted in listings of the variables in the
same order of importance. Three schools differed slightly
(Brookdale Place, East Langston and St. Mary's).

Since the differences appear to be slight in the two
types of regressions, attention in the analyses was primari-
ly devoted to the direct regression. This regression was
able to account for the ordering of all variables through
the use of beta prime scores which provide the order of im-
portance for each variable in its relationship to the LAAS
total score. Significance levels were computed for both
regressions. From these data, it will be possible to con-
struct a school profile relating to the LAAS total score.

Table 9

Ordering of Variables in Sample Schools Direct Regression

Rank	Brookdale Place	East Langston	Premier	Southwestern	St. Mary's	Western
1	G.P.A.**	G.P.A.**	G.P.A.**	G.P.A.	G.P.A.	G.P.A.**
2	Sex*	Extra-C.	Extra-C.	I.Q.	I.Q.	Grade
3	Extra-C.	Grade	Grade	Sex	Extra-C.	Course
4	Grade	Attendance	I.Q.	Extra-C.	Sex	I.Q.
5	I.Q.	Course	Attendance	Grade	Attendance	Sex
6	Attendance	I.Q.	Sex	Attendance	Grade	Extra-C.
7		Sex	Course			Attendance

* P < .05
** P < .01

Table 10

Ordering of Variables in Sample Schools on Last Significant Step
of the Step-Wise Regressions

Rank	Brookdale Place	East Langston	Premier	Southwestern	St. Mary's	Western
1	G.P.A.**	G.P.A.**	G.P.A.**	G.P.A.**	G.P.A.**	G.P.A.**
2			Extra-C.**			Grade**
3			Grade*			

* P < .05
** P < .01

The following hypotheses, previously stated in Chapter III in null form, were investigated using the LAAS total score and the selected variables:

1. There is a positive relationship between the LAAS total score and student responses on the open-ended questionnaire.

2. There is a positive relationship between LAAS total score and sex of the student.

3. There is a negative relationship between the LAAS total score and the grade placement of students.

4. There is a positive relationship between the LAAS total score and the intelligence quotient of students.

5. There is a positive relationship between the LAAS total score and the grade point average of students.

6. There is a negative relationship between the LAAS total score and the number of days a student is absent.

7. There is a positive relationship between the LAAS total score and the intensity of student participation in extra-curricular activities.

8. There is a positive relationship between the LAAS total score and the course enrollment of high school students.

The sections dealing with the hypotheses will present all data gathered in the analysis. The correlations that were run within and across schools are shown in Table 6. Reference to these correlations will be made in the analysis of each of the hypotheses. Primary attention will be given to the step-wise regressions run across and within schools.

Hypothesis I
Open-Ended Questionnaire - LAAS Total Score

The results of the correlations between the total score
and sub scales on the open-ended questionnaire and the LAAS
total score and sub scales were significant (Table 11). 336
students from three schools were given both scales in an
attempt to measure concurrent validity between the LAAS total
score and the student's free responses to the variables pur-
portedly measured by the LAAS. The mean scores of three
independent judges were used as the total score on the open-
ended questionnaire.

The correlations between the sub scales of the open-
ended questionnaire and the sub scales of the LAAS scale
varied from .30 to .51 respectively. All correlations were
significant at the .01 level or higher. The highest correla-
tion on sub scales between the two instruments (.51) was on
the sub scales that purport to measure student perception of
themselves in relation to their peers and the school in
general. The second highest correlation (.47) was between
the two sub scales that measure student perception of the
teaching staff. Based on the correlations obtained, these
two sub scales had the largest influence on student percep-
tion of the school environment when the open-ended question-
naire and the LAAS scales were used.

All of the other correlations between the sub scales

Table 11

Correlations Between LAAS Total Score, Sub Scales and
Open-Ended Questionnaire Total Score, Sub Scales

Question	Area	SSI Self	SSII Teacher	SSIII Facilities	SSIV Extra-C.	SSV Admin.	SSVII Curr.	Total
1	Curriculum (Subjects to student goals)	.24**	.28**	.30**	.07	.24**	.35**	
2	Curriculum (classes)	.28**	.34***	.28**	.12*	.17**	.30***	
3	Administration	.30**	.27**	.28**	.21*	.32**	.30***	
4	Extra-Curricular	.29**	.14	.24***	.31***	.12*	.14**	
5	Facilities	.18***	.14*	.32**	.10*	.05	.17***	
6	Teacher Role	.33*	.47**	.33***	.05	.27***	.33***	
7	Self-Peer	.51**	.43**	.44***	.24**	.31***	.41**	
Total		.52**	.50***	.53**	.27***	.36***	.49***	.65**

* P < .05
** P < .01

ranged from .35 to .30. Facilities and Administration sub
scales had correlations of .32, Extra-Curricular sub scales
.31 and two open-ended questions which dealt with subject
curriculum had correlations with the single sub scale of the
LAAS that dealt with subject curriculum of .35 and .30 re-
spectively. The reasons for using two questions in the open-
ended questionnaire was to specifically define the areas
that students were to answer. One of the open-ended ques-
tions dealt with student perception of curriculum in terms
of individual student goals and the second question of the
subject curriculum area dealt with subject curriculum in
relation to the classes and assignments in which students
participated. The overall correlation between the LAAS total
score and the open-ended questionnaire total score was .65.
From the data collected in the sample population, it would
seem that there is a significant relationship between the
sub scales and the total scores of the two instruments.

Caution must be used in the interpretation of the corre-
lations obtained in this study. The ratings of the open-
ended questionnaire were done by three independent judges
but their ratings for each question were restricted to a 3
(positive), 2 (undecided) and 1 (low) rating resulting in a
potential range for the total score of 7 to 21. Conversely,
the LAAS scores ranged from a low of 38 to a high of 128,
with item responses ranging from 5 (strongly agree) to 1
(strongly disagree). Rater reliabilities between the three
raters were .88, .93, and .94 (Appendix J).

Further research should be done in the area of student
responses with the LAAS and the open-ended questionnaire
but findings in this study support the use of the LAAS as
an instrument that measures student perception of the school
environment in that there is a significant positive rela-
tionship between student free responses to the selected con-
structs on the LAAS and the open-ended questionnaire. The
accumulated evidence gives support to reject the null
hypothesis.

<div align="center">

Hypothesis II
Sex - LAAS Total Score

</div>

There was only one significant correlation between sex
and the LAAS total score (Table 6). St. Mary's Junior High
school showed a positive relationship between the two vari-
ables. In this particular school girls tended to perceive
the environment in a more positive manner than boys. It
should be noted, however, that St. Mary's had the highest
mean total score on the LAAS and that the LAAS total score
range for that school was 84 to 135, as compared to an across
school total score range of 45 to 135. It would seem that
the student perception of the school environment at St.
Mary's tended towards a positive level, but that girls were
more positive in their perception than boys.

In the step-wise regressions (Tables 7 and 8), sex was

not a significant factor in either equation. When all
schools were included in the first equation (Table 7), sex
did appear as a contributing variable before attendance,
I.Q. and East Langston. In the second equation (Table 8)
sex did not appear at all. This indicated that sex at the
high school levels did not appear to be a significant con-
tributor to student perception of the environment using the
LAAS. This point was further confirmed in the individual
analysis (Tables 9 and 10) which showed sex as a relatively
low contributor to the equations in all three high schools.

At the Junior High School level (Table 9) sex was a
significant factor in student perception using the LAAS at
Brookdale Place Junior High School and was a relatively
high contributor at Southwestern and St. Mary's Junior High
Schools (Tables 9 and 10).

These findings also indicate that boys and girls do not
follow set patterns of perception of the school environment
across schools. It is also indicated that student percep-
tion of the environment is influenced by sex more at the
junior high school than at the senior high school level in
the sample populations used (Tables 9 and 10). In the direct
regression (Table 9), boys in three schools (Brookdale Place,
East Langston and Southwestern) tended to perceive the envi-
ronment in a more positive manner than girls, while the
situation was reversed in the other three schools. The same

was also true in the step-wise regression (Table 10) where girls were related to positive perceptions in Premier and St. Mary's; whereas boys tended to perceive environments more positively in Brookdale Place and Southwestern while the variable of sex did not appear in East Langston or Western.

In the sample population, sex does not appear to be a significant influence on student perception of the school using the LAAS, although sex does seem to influence perception more at the junior high school level. The accumulated evidence, however, does not support a rejection of the null hypothesis.

<center>Hypothesis III
Grade Placement - LAAS Total Score</center>

The Pearson correlation between grade placement and the LAAS total score across all schools was -0.0934 significant at the .013 level (computed). Each student was numerically assigned his grade placement (1 indicating grade 7, 2 grade 8, 3 grade 9...). With a negative relationship an increase in one variable indicates a decrease in the other variable. The plots for this combination of variables for these particular correlations revealed that students in the sample who were in grades 7, 8 and 9 had slightly more positive perceptions of their schools than those students in grades 10, 11 and 12 (Table 6).

Individual schools did not have significant correlations

except in the case of Western. Interestingly, all three of
the high schools did have negative correlations while the
three junior high schools had positive ones. This further
indicates a tendency towards more positive perception of the
school environment at the lower levels in the selected
schools. Since the findings also suggest that changing
student perceptions have a tendency to become less positive
as students reach higher levels in school, reasons for this
changing attitude would be interesting to research.

Using the step-wise equation (Table 8), grade placement
was a significant variable in the three high schools and
was a variable included in the equation across all schools
(Table 7), but not at a significant level.

In the individual school analysis, grade placement was
significant in Premier High School in the direct regression,
and in Premier and Western in the step-wise analysis. Grade
placement was a low yield variable in all junior high
schools, but it did appear in the equation.

From these findings it is possible to conclude that
students in the sample schools, who are in the lower grades,
tend to have more positive perceptions of the school envi-
ronment as measured by the LAAS. Some of the data would
also indicate that different school populations vary in
terms of their perception of the school according to grade.

The accumulated evidence as described indicates that

grade placement is related to the LAAS total score across
schools and within some schools and that the null hypothesis
be rejected.

Hypothesis IV
I.Q. - LAAS Total Score

Data in Table 6 indicates that the correlations between
I.Q. and the LAAS total score were significant across schools
at the .001 level. It is also interesting to note that I.Q.
is related to other variables selected for this study. An
inspection of the correlation matrix (Table 12) revealed a
relationship of .519 between grade point average and I.Q.
and a correlation of .263 between intensity of extra-
curricular participation and I.Q. From this information it
is possible to conclude that some of the I.Q. contribution
to correlation with the LAAS total score may be due to
other variables in combination with I.Q. The step-wise
regressions across schools and with only the high schools
revealed this to be true. In both step-wise equations, I.Q.
did not appear as a significant variable. Yet its relation-
ship to G.P.A., which in this case is independent of I.Q.,
and extra-curricular activities still points to I.Q. as a
contributor, only when other variables are in the equation.

The analysis of individual schools showed some different
perspectives. I.Q. was a highly contributing variable in

Table 12

Correlation Matrix All Variables, Sub Scales, All Schools

	Sex	Grade	I.Q.	G.P.A.	Atten.	Extra-C.	Course	SS I	SS II
Sex	1.000	-0.011	0.051	0.242	0.055	0.083	-0.026	0.022	0.028
Grade		1.000	0.115	-0.006	0.157	0.012	0.735	-0.037	-0.147
I.Q.			1.000	0.519	-0.062	0.263	-0.127	0.280	0.053
G.P.A.				1.000	-0.229	0.279	-0.162	0.425	0.203
Atten.					1.000	-0.179	0.236	-0.187	-0.094
Extra-C.						1.000	-0.204	0.275	0.130
Course							1.000	-0.105	-0.163
SS I								1.000	0.524
SS II									1.000

Table 12 (cont.)

	SS III	SS IV	SS V	SS VI	All Sc.	LAAS To	LAAS AD	Brook.
Sex	0.085	0.060	0.117	0.039	0.023	0.066	0.079	-0.008
Grade	0.099	-0.090	-0.167	-0.082	0.088	-0.093	-0.066	-0.501
I.Q.	0.104	0.246	0.098	0.071	-0.069	0.189	0.196	0.098
G.P.A.	0.189	0.285	0.176	0.291	-0.008	0.368	0.375	0.024
Atten.	-0.072	-0.158	-0.054	-0.116	-0.038	-0.161	-0.159	-0.075
Extra-C.	0.121	0.324	0.095	0.147	0.255	0.248	0.224	-0.012
Course	0.100	-0.167	-0.161	-0.088	0.106	-0.131	-0.109	-0.541
SS I	0.427	0.465	0.385	0.556	0.107	0.811	0.781	-0.056
SS II	0.470	0.296	0.478	0.585	0.209	0.819	0.818	-0.064
SS III	1.000	0.251	0.341	0.484	0.268	0.676	0.671	-0.208
SS IV		1.000	0.211	0.344	0.106	0.558	0.513	-0.026
SS V			1.000	0.432	0.173	0.595	0.588	-0.062
SS VI				1.000	0.179	0.812	0.801	-0.108
All Sch.					1.000	0.234	0.234	-0.542
LAAS To						1.000	0.979	-0.117
LAAS AD							1.000	-0.139
Brook.								1.000

Table 12 (cont.)

	E. Lang.	Premier	Southwestern	St. Mary's	Western
Sex	-0.020	0.001	0.010	0.016	0.011
Grade	0.396	0.327	-0.349	-0.363	0.263
I.Q.	0.176	-0.172	-0.236	0.013	0.047
G.P.A.	-0.020	-0.006	0.021	-0.017	0.002
Atten.	0.122	0.029	-0.032	-0.122	0.021
Extra-C.	-0.137	-0.177	0.032	0.200	0.191
Course	0.362	0.417	-0.364	-0.353	0.254
SS I	0.036	-0.109	-0.058	0.183	0.038
SS II	-0.103	-0.103	0.024	0.299	0.052
SS III	-0.080	0.131	-0.183	0.223	0.152
SS IV	-0.016	-0.078	-0.079	0.232	0.012
SS V	-0.040	-0.165	0.090	0.199	0.067
SS VI	-0.146	0.058	0.067	0.194	0.025
All Sch.	-0.397	-0.081	0.103	0.402	0.759
LAAS To	-0.084	-0.054	-0.030	0.303	0.074
LAAS AD	-0.073	-0.036	-0.026	0.285	0.075
Brook.	-0.296	-0.237	-0.156	0.151	-0.208
E. Lang.	1.000	-0.303	-0.199	-0.193	-0.265
Premier		1.000	-0.160	-0.155	-0.212
Southwestern			1.000	-0.102	-0.140
St. Mary's				1.000	-0.135
Western					1.000

two of the schools when each school was analyzed separately.
In St. Mary's, a private parochial junior high school, and
in Southwestern Junior High School, I.Q. was the second most
important variable. Brookdale Place and all high schools,
did not reveal I.Q. as an important contributor to student
perception of the school environment.

Although no schools revealed significant relationships
between the LAAS total score and I.Q., it would seem that
I.Q. can play a role in the determination of student percep-
tion of some school environments. Evidence presented some
basis for rejecting the null hypothesis in some schools, but
the overall evidence indicates that this was not possible
in all schools or in the total sample across schools.

<div align="center">Hypothesis V
Grade Point Average - LAAS Total Score</div>

There was a high correlation, significant both across
schools and within schools between grade point average and
perception of the school environment (Table 6). This rela-
tionship is not only within a particular course enrollment
but within all parts of the school environment.

The step-wise equations in Tables 7 and 8 also rated
grade point average as the single most important correlate
between all variables and the LAAS total score. The same
was also true in the MUREG analyses (Tables 9 and 10) where

grade point average was the highest and/or the most significant independent variable in its relationship to the LAAS total score.

Students in the sample schools who are achieving a measure of success in school work tend to perceive the school in a positive manner. Those who are not achieving in their school work tend to perceive the school in a less positive perspective. Whether the students are in a college or non college course did not affect the variable of grade point average.

Since this correlation persisted across all schools and in all analyses made of the sample population, it is concluded that the accumulated evidence gives adequate support to reject the null hypothesis V.

Hypothesis VI
Number of Days Absent - LAAS Total Score

Negative but significant correlations were found through the use of the bi-variate correlation of the LAAS total score with the number of days that a student was absent. This result indicated that students who scored high on the LAAS tended to be absent a lower number of times than those who perceived the school environment in a less positive manner. It would appear that students who are in school for most days have a tendency towards a positive perception of the school while those who are more

frequently absent tend to manifest a less positive perception of the school environment (Table 6).

One school had a positive correlation between absenteeism and the LAAS total score, meaning that high scores were equated with high absentee rates and low scores with lower results on the LAAS. The school was observed as the poorest in terms of facilities and varied types of programs but student respect for the administrator seemed to be extremely high. It is conceivable that students felt a positive perception of the school in spite of high rates of absenteeism and that this positive perception was related to those running the school rather than the school itself. It would seem that this result is again an indicator of selected schools creating their own profile of student perceptions which may be opposite to across school results.

In spite of the significance in the Pearson correlations, the step-wise analyses (Tables 7 and 8) failed to show significant relationships between the number of days absent and the LAAS total score. A number of reasons may have contributed to this failure. It was assumed in this study that students who were absent from school had a tendency to do so because of a dislike of the school climate. This did not appear to be the case in the regressions. Number of days absent did appear in both equations which were run across schools but in neither case was the variable significant.

In the analyses of individual schools (Tables 9 and 10),
attendance was a low variable in terms of entering the equa-
tion in all schools. This would indicate that attendance is
not a significant factor in student perception of the school
environment in the sample schools. This particular variable,
of itself, does not seem to affect student perception but,
as was shown in the correlational analysis (Table 6) it does
have some relationship when not controlling for the other
variables.

It was interesting to note that all three high schools
had significant negative correlations (Table 6) between the
number of days absent and the LAAS total score when the cor-
relations were utilized, but that this result did not show
up when the variable was isolated. In addition, at the
junior high school level, these correlations were not signi-
ficant. The junior high school results found correlations
to be slightly positive or close to 0. This may indicate
that in the sample schools attendance may be a clearer in-
dicator of dissatisfaction with school at the high school
level than at the junior high school level. At the junior
high school level, the positive correlation between high
absenteeism and the LAAS total score would indicate that
students who tend to be absent do not reflect dissatisfac-
tion of the school climate in their perception of the school
as shown on the LAAS.

Days absent could not be isolated as a single variable
that is related to student perception of the school envi-
ronment. It did not appear as a significant contributor in
the step-wise equations, and even though it did appear as
significant in some of the correlations, the data presented
did not give adequate support to reject the null hypothesis.

Hypothesis VII
Extra-Curricular Participation - LAAS Total Score

In the analysis that was conducted involving intensity
of extra-curricular participation and perception of school
environment, significant findings resulted in all correla-
tions made across schools and within three schools (Table 6).

The determination of participation in extra-curricular
activities involved an analysis of the types of activities
that were considered important across given schools, a
request for students to complete an extra-curricular acti-
vities form (Appendix G) followed by a check with school
authorities on the extent of reported extra-curricular
activities participation made by students. From this infor-
mation students were rated as High (3), Average (2) or Low
(1) in terms of participation. No participation also
received a 1 rating.

In the step-wise equation using all schools (Table 7)
intensity of extra-curricular participation was the fourth

most significant variable in the analysis. Two schools, Western and St. Mary's, appeared in the equation after grade point average. In this particular equation and in the following one using high schools (Table 8) extra-curricular activities were a significant contributor. Three variables, G.P.A., grade and intensity of extra-curricular participation, were considered significant in the analysis performed across all schools.

In the second equation run among the three high schools, extra-curricular participation again was a fourth contributor and remained significant in the analysis. In this case only Western appeared as a school in the equation but grade placement was the third most significant contributor.

Students who have a high degree of participation in extra-curricular activities tended to perceive the school in a more positive manner across the sample schools; those who have little or no participation tend to regard the school environment in a less positive manner.

In the individual school analysis, (Table 9) extra-curricular activities appeared as a significant variable in the determination of the LAAS total score in Premier High School and as a high contributor in Brookdale Place, East Langston and St. Mary's. Participation in extra-curricular activities was not an important variable in Southwestern where there are limited programs or at Western where there

is a diversified program which evidently is not a factor
that influences student perception of school environment.
This result within schools again demonstrates the uniqueness
of schools in terms of what influences student perception
and what variables seem to significantly contribute to this
perception.

The evidence across schools and, in some cases, within
schools, suggests that there is a relationship in the sample
population between student perception of the school environ-
ment as measured by the LAAS total score and the intensity
of participation in extra-curricular activities. The evi-
dence gives support for a rejection of the null hypothesis.

Hypothesis VIII
Course Placement - LAAS Total Score

Since three junior high schools were involved in this
study, it was necessary to make some adjustments relative
to course placement. None of the junior high schools had a
course placement at their level. The selection of college
or non-college programs occured at the ninth grade level in
all three high schools.

The second step-wise regression was run specifically
to identify the variable of course placement but the regres-
sion also provided an independent analysis of the high
schools. From the data gathered across schools, it was
determined that course placement is not a factor that

influences student perception of a given school. In the step-wise analysis it was the last variable to appear in the run (Table 8). Only the first four variables to appear in the equation were determined to be significant in terms of the calculations utilizing the F score.

In the separate schools, (Table 9) course was a contributing variable only in Western where this factor seemed to be more important in influencing student perception of the school environment than in all other variables except grade point average and grade placement. Since extra-curricular participation was a contributing factor in most other schools, but not Western, it seems that the variable of course placement is more significant at Western than the intensity of extra-curricular participation. One conclusion from this result is that there is more emphasis at Western on course placement than on extra-curricular activities.

From the information presented, it is not possible to reject the null hypothesis. Although the MUREG analysis did indicate that course placement was a high contributing variable at Western, the evidence across all schools in the step-wise analyses and the individual analyses in five of the six schools, indicates that it is not possible to clearly say that course placement is a factor that influences student perception of the school environment. It is not possible to reject the null hypothesis.

SUMMARY, CONCLUSIONS AND IMPLICATIONS FOR FURTHER RESEARCH

The final chapter presented will summarize the findings
of this study and will present related conclusions. There
will also be suggested directions for further research in
the areas of secondary school environments.

Summary

This study sought to determine relationships between
selected student characteristics and the LAAS total score.
The following hypotheses were tested:

1. There is a positive relationship between the open-
    ended questionnaire and the LAAS total score.

This hypothesis was supported by the significant corre-
lation of .65 between the total scores of the two scales
that were administered to selected students in three high
schools. Since there was a significant correlation between
the two scales, use of the LAAS to measure the selected
factors that purportedly comprise school environments was
warrented in this study. Further work must be done to evalu-
ate the sub scales and their relationship to student percep-
tion of the school environment in the areas of factor analy-
sis and comparison of the LAAS to other external criteria as
they become available.

2. There is a positive relationship between the LAAS
    total score and the sex of the students.

Since there was only one school which showed a significant correlation between sex and the LAAS total score and the finding that sex did not appear significant in any equation when the step-wise multiple regressions were used, it is not possible to establish significant relationships between student perceptions of the school environment and the sex of the student. In the sample schools sex was not a major factor that contributed to student perception of the school when the LAAS scale was used.

3. There is a negative relationship between the LAAS
    total score and the grade placement of students.

Students in the sample schools seemed to be less positive in their perception of the school environment as they spent more time in school. All three junior high schools showed positive correlations (Brookdale Place .06, Southwestern .12, St. Mary's .08) between the LAAS total score and grade placement, while all three high schools showed negative correlations (East Langston -.03, Premier -.11, Western -.20) between grade placement and the LAAS total score. Both step-wise regressions across schools found grade to be a significant contributor to student perception of the environment. From this data it is possible to conclude that in the sample schools, grade placement is a significant contributor to student perception of the school environment.

This hypothesis is supported by the evidence collected in the sample schools.

    4.   There is a positive relationship between the LAAS total score and I.Q.

No data supported this hypothesis but correlations between I.Q. and grade point average (.52) and I.Q. and the intensity of extra-curricular participation (.26), do indicate that I.Q., in combination with other variables, may be related to student perception of the environment. The isolation of the I.Q. variable, however, does not support the hypothesis as having a significant relationship with the LAAS total score.

    5.   There is a positive relationship between the LAAS total score and the grade point average of students.

This finding was the most significant relationship of the study. In all cases and in all analyses, grade point average was the most significant contributor to the student perception of the school environment when the LAAS is used.

    6.   There is a negative relationship between the LAAS total score and the number of days that a student is absent.

There was a tendency for the high schools to show significant negative correlations (<.05) between the LAAS total score and the number of days absent (East Langston -.15, Premier -.24, Western -.19). This relationship would indicate a tendency on the part of students to positively

rate the school environment if their attendance patterns are low and to rate the school environment negatively if the patterns of absence are high. The step-wise analyses, however, both within and across schools did not indicate that attendance and the LAAS total score had significant relationships in the determination of the school environment. In both equations, attendance did appear but the variable contributed little to the overall equation. Since there was little strength in the attendance variable in the step-wise equations when it was isolated, it would seem that the overall data does not support acceptance of this hypothesis. The significant correlations, although not high, do suggest consideration of further research in studying relationships between attendance and student perception of the school environment.

      7.   There is a positive relationship between the LAAS total score and the intensity of student participation in extra-curricular activities.

The correlations across all schools were significant ($< .05$). In the step-wise analyses, extra-curricular activities also appeared as a significant contributor in the equations both across all schools and in the analysis run with only high schools. In the individual school analyses, extra-curricular activities were significant contributors to the student perception of school environment in Premier

High School and were high ranked variables in Brookdale
Place, East Langston and St. Mary's. In Western and South-
western extra-curricular activities were not high ranking
variables that affected student perception of the school
environment when the LAAS was used.

Although some schools did not show participation in
extra-curricular activities as a significant contributor to
student perception of the school environment, the accumu-
lated evidence across schools and in some of the sample
schools gives support to the acceptance of the hypothesis.

8. There is a positive relationship between the LAAS
    total score and the course enrollment of high
    school students.

Data collected in the sample schools does not support
this hypothesis. In the regression equations that were run
with high school students, course placement appeared as a
high contributor only at Western High School, where course
placement seems to be more important than extra-curricular
participation in influencing student perception of the
school environment. Based on the evidence collected, it is
not possible to accept the hypothesis.

Conclusions

From the data gathered, many interesting issues arise
in the area of the student perception of the school

environment. The suspicion that students in different
schools have different perceptions of their school environ-
ments proved true in the sample schools. The perception of
the school environment does vary, however, in terms of stu-
dent perception of selected constructs, for example some
schools rate teachers and administrators low but rate faci-
lities high. It would seem then, that the school environ-
ment is shaped by those who staff the school, those who
live in the community, the attitudes of those who come in
contact with the students and numerous other factors that
Bloom (1964), Pace (1963) and Stern (1970) would refer to
as wide ranging.

Different combinations of student perceptions contri-
buted to total score results. This study did not pursue
the analysis of the sub-scales that purportedly contribute
to the LAAS total score. Indications of how students in
the sample schools rated the constructs were discussed in
Chapter IV. From the information collected, there are
indications that analysis of these sub-scales, with selected
variables, might produce further evidence concerning the
capacity of the LAAS to measure student perception of
school environments. Further, step-wise regressions within
schools can provide opportunities for all schools to analyze
their environment using their own population and to extract
factors that seem to influence student perception of the
environment.

In this study, the most significant factors that influenced student perception of the school environment when the LAAS scale was used, were grade point average, the intensity of extra-curricular participation and grade placement. It would seem that these are areas that must be considered by administrators and counselors when they are planning the curriculum for individual students. Success, in the sample schools, was not placement in a college or non-college course, but graded achievement wherever that might be. It is reasonable to conclude that there is perhaps a relationship between a satisfied student and a successful student. This puts a great responsibility on the school in placing students in a proper program. Frequently, students are placed where other persons feel they should be placed, but experience in this study indicates that poor grades and poor perception of the school are possibly related. Course placement, however, was not a critical issue in the determination of how a student perceives his school environment in the sample schools. Administrators, principals, counselors and others involved in the educational process must take some hard looks at the importance of student achievement as a means of improving student perception of the school environment and subsequently improving student desire to be successful within the school.

Extra-curricular participation is also a ranking variable in the student perception of the school environment.

A sense of belonging seems to be a critical issue in student perceptions of his environment and extra-curricular activities are one way of achieving this success. Since there is a possible relationship between extra-curricular participation and positive perception of the school environment when the LAAS is used, it might be possible for schools to consider spending more time involving students in extra-curricular programs.

Another issue that schools must consider in the student perception of environment is the variable of grade placement. The indications in the study were that students in the junior high schools had a tendency toward positive perception of the school environment while those in the high schools had tendencies toward negative perception about the school environment. At some point in time the issue of perception seems to change, for many, from positive to negative. Since this is indicated in the sample schools studied, it may be worthwhile to consider further work in researching the affect of grade placement on student perception of the environment and whether student attitudes do indeed change as they proceed to higher grades.

Since the main basis for validity of the LAAS scale prior to this study was primarily with extensive student contacts as the scale was developed, another consideration of the results in this study was in expanding some of the information concerning the validity of the scale.

As mentioned previously in Chapter II, some measure of construct validity can be considered if the scale yields different scores for different groups or in this case different schools (Shaw and Wright 1957). The mean scores for all schools did vary and analysis of specific characteristics such as grade point average, intensity of extra-curricular participation, grade placement and some of the schools themselves identified these variables as significant contributors to student perception of the school environment.

Additionally, interest of students reflected a desire to participate in this type of evaluation with the aim of presenting their views on the school environment. The interest of the participants reflected a face validity which Anastasi (1961) suggests is a desirable feature in any test because it reflects the interest and desire of the participants to take the scale with an aim towards receiving some results or creating some change. Group meetings with students after the scale was administered reflected, not only an interest, but also an awareness on the part of the students concerning the purported constructs of the LAAS scale. Written comments by the students also reflected a desire to be included in evaluations of the school environment.

Since the manifested interest of students reflects the desire of them to participate in evaluation of the school

environment, it can be said that the LAAS scale does possess some form of face validity.

Further clues concerning the validity of the LAAS scale were received through the administration and comparison of the scale with the open-ended questionnaire using a selected population. The purpose of this procedure was to investigate the possible concurrent validity of the LAAS total score and the total score of the student's free responses to the variables purportedly measured by the LAAS. If we can accept the more natural free responses to the LAAS constructs as an indication of true student feeling about perceptions of the school environment, then the total score correlations between the two scales of .65, significant at the .001 level, does suggest that some measure of concurrent validity exists between the two scales.

A further criterion for the establishment of validity for the LAAS are the steps suggested by Stern (1970). He feels that the following approaches should be considered in establishing validity of perception scales:

1) an analysis of the scale to determine its capacity to discriminate between subjects classified in groups on the basis of some discrete predetermined external criterion such as occupation, avocation or major field,

2) a process of specifying in advance the behavioral consequences likely to be associated with given scale scores,

3) an inquiry into the relationship between person and environment to be taken into account in the prediction of behavior.

This study did find relationships between the LAAS
total score and grade point average, extra-curricular
activities, grade placement and selected school populations
(Tables 7 and 8). In addition, significant correlations
($<.05$) were found between the LAAS total score and the
selected variables of grade, I.Q., grade point average,
intensity of extra-curricular participation and course place-
ment both across and within selected sample schools (Table
6).

If we assume that student perceptions of the school
environment are reflected in the variables of grade point
average, extra-curricular participation and unique school
environments, then the LAAS total score may be utilized as
a measure of student perception of the learning atmosphere.

The constant appearance of selected schools as factors
that influence student perception of school environment
supports the issue of individual school profiles. Factors
that create student loyalty or disloyalty to selected
schools are critical issues that must be faced, and hope-
fully resolved, by those who are charged with the respon-
sibility of creating a challenging and perceptive educational
environment.

It is no longer possible to impose the will of a
selected few on a large educational facility. Students have
become perceptive, imaginative and committed and will not be

stifled by conservative and archaic approaches to education.
Involvement of students in the planning of curriculum,
encouragement of teacher and student planning councils and
the development of new perspectives in educational planning,
are philosophical issues that are difficult to accept for
some, but these directions are the most productive course
of action to be followed if schools are to maintain their
educational perspective.

Implications

The results of this study present some challenges to
educators. The issue of student perception of the school
environment can be a difficult concept to accept. To seek
the perception of those who are the receivers in the educa-
tional process, is to find new thinking that will stimulate
new growth. Involvement of students in the evaluation of
the school environment hopefully can produce some new per-
spectives from students that may help to produce better
educational climates. The LAAS, hopefully, is a step in
this direction.

Further work must be done with the LAAS as a measure
of student perception of the environment. A factor analy-
sis of the scale is now a logical step. It would also be
wise to further check the sub-scales of the LAAS to see if
these sub-scales do measure the areas which they are

purportedly assigned to measure. Work should also be done with urban populations which were not included in this particular study. Possible differences across schools between urban and suburban populations would be interesting to investigate.

Some of the differences that were found among the schools in the study merit further discussion. One of the schools, St. Mary's Junior High School, had the highest mean scores for the LAAS scale. Both boys and girls had high perceptions of the school environment. It would be interesting to see if all types of private schools have students who think so positively of the school environment. Perhaps schools which are selective have built-in environments that lend themselves to more positive student perceptions of their environments. It may also be that parents have more of a stake in these private schools and consequently show more of an interest in their child's progress. If this is the case, perhaps public schools can benefit from this type of interest and encourage more parental interest in their operation. This is not an easy task.

More work must also be done at the secondary school level in other areas. The issue of how a student perceives himself in relation to the school environment is a critical issue. This factor was one of the sub-scales in the LAAS scale, but a complete study on the relationship of student

perception of himself to the student perception of how he perceives his environment is extremely important.

Another issue that should be investigated is the relationship of student grade placement and the perception of the school environment. At some point in time the issue of perception in the sample schools seems to change, for many, from positive to negative. This point was shown in the current study where grade placement became a significant negative factor in the influencing of student perception of the school environment in a positive direction at the higher levels of school. Further work dealing with this issue must be done, not only by research, but also in the schools where these students now reside. Perhaps a longitudinal study with elaborate checkpoints along the way would enable us to analyze the time where this change takes place.

Student participation, the involvement of the learner with those who teach, is a concept that will be expanded in the seventies. Many students are committed to their role of learning in a most positive way. Their refreshing ideas and philosophies provide numerous opportunities for school systems to create new and dynamic programs. Students' evaluation of the school environment is a single step in this direction. It must be expanded to provide school systems with profiles that will enable those responsible for the educational programs to meet the demands and expectations of the students whom they serve.

APPENDIX A

LEARNING ATMOSPHERE ATTITUDE SCALE

Form A

Directions

On the following pages you will find 30 statements that a person such as yourself might make about his or her school and education. You are asked to read each statement carefully and then give your honest and frank opinion to the statement. This is not a test and there are no right or wrong answers. Please feel free to answer exactly the way you feel about your school and not how you think other people (teachers, parents, students, etc.) might want you to feel.

You have all been provided with an answer sheet to be used in marking your responses. Record all of your answers on the answer sheet and make no marks on the booklet itself. Please answer all of the questions.

In answering the questions try to follow these steps:

1. Read the statement carefully.
2. Think about how the statement relates to your school.
3. Use a black lead pencil (preferably #2 or softer) in marking your answers.
4. Find the number on the answer sheet that matches the statement you are considering.
5. For each question blacken only one space on the answer sheet. Use the following instructions.

If you strongly agree with the statement,
your answer to the question would look like
this on the answer sheet:

1. ▓ 2. II   3. II   4. II   5. II

If you agree with the statement, your answer
to the question would look like this on the
answer sheet:

1. II 2. ▓   3. II   4. II   5. II

If you are undecided about the statement,
your answer to the question would look like
this on the answer sheet:

1. II 2. II   3. ▓   4. II   5. II

If you disagree with the statement, your
answer to the question would look like this
on the answer sheet:

1. II 2. II   3. II   4. ▓   5. II

If you strongly disagree with the statement,
your answer to the question would look like
this on the answer sheet:

1. II 2. II 3. II   4. II   5. ▓

6. Try to avoid blackening "Undecided" if possible.
7. This scale is not timed but work as fast as you
    can.

		Strongly agree	Agree	Undecided	Disagree	Strongly disagree
1.	I go to school only because I have to.	1	2	3	4	5
2.	Teachers are usually understanding when a student does something wrong.	1	2	3	4	5
3.	Only a few teachers in this school seem capable of handling both the fast and slow students.	1	2	3	4	5
4.	The facilities in this school make it difficult to be a good student.	1	2	3	4	5
5.	If I had my choice, I would choose to go to another school.	1	2	3	4	5
6.	My teachers really know me.	1	2	3	4	5
7.	There are few activities that I care to join in school.	1	2	3	4	5
8.	There is little opportunity in school to do the things that I enjoy doing.	1	2	3	4	5
9.	I would like to take an active part in school elections.	1	2	3	4	5
10.	Most of my classes are boring and have no connection with my life today.	1	2	3	4	5
11.	In this school, students treat each other with respect.	1	2	3	4	5
12.	Students don't have enough books and materials available to them in this school.	1	2	3	4	5

		Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
13.	A student can take little pride in the appearance of this school.	1	2	3	4	5
14.	Most of the classrooms in this school seem dull and unexciting.	1	2	3	4	5
15.	Teachers are considerate of my feelings.	1	2	3	4	5
16.	My own opinions are just as important as the opinions of other students.	1	2	3	4	5
17.	Assignments need to be more understandable.	1	2	3	4	5
18.	I feel that I am doing well in school.	1	2	3	4	5
19.	Homework assignments are not purposeful.	1	2	3	4	5
20.	I think that I will earn awards by the time I finish high school.	1	2	3	4	5
21.	Teachers do too much talking in class.	1	2	3	4	5
22.	I can express strong personal beliefs in my classes.	1	2	3	4	5
23.	I can understand the teachers most of the time.	1	2	3	4	5
24.	Teachers have an "I don't care" attitude when a student needs extra attention.	1	2	3	4	5
25.	I like to support the big school events.	1	2	3	4	5

		Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
26.	This school is more concerned with rules and regulations than with what we are learning.	1	2	3	4	5
27.	My school subjects are related to what I want to do with my life after high school graduation.	1	2	3	4	5
28.	The textbooks are understandable.	1	2	3	4	5
29.	A student needs permission to do most things in this school.	1	2	3	4	5
30.	High school education makes a person a better citizen in the community.	1	2	3	4	5

APPENDIX B

Correlations across Schools of LAAS Sub Scale
Scores with Selected Variable

	Sex	Grade	I.Q.	G.P.A.	Attend.	Ex.-Curr.	Course
SS I (Self)	.02	-.03	.28**	.42**	-.19**	.28**	-.21**
SS II (Teacher)	.02	-.14**	.05	.20**	-.09*	.13**	-.11*
SS III (Facilities)	.08*	-.09**	.10**	.19**	-.08*	.12**	-.08
SS IV (Extra-C)	.06	-.09*	.25**	.28**	-.16**	.32**	-.27**
SS V (Admin)	.12**	-.16**	.10**	.18**	-.05	.10*	-.14**
SS VI (Curr)	.04	-.08*	.07*	.29**	-.13**	.15**	-.08

* < P .05
** < P .01

APPENDIX C

LEARNING ATMOSPHERE ATTITUDE SCALE

Directions for Administrators

THE SCALE YOU ARE ABOUT TO TAKE IS CALLED THE LEARNING
ATMOSPHERE ATTITUDE SCALE. IT CONSISTS OF 30 STATEMENTS
THAT A PERSON SUCH AS YOURSELF MIGHT MAKE ABOUT HIS OR HER
SCHOOL AND EDUCATION. WE ARE ASKING YOU TO TELL US HOW
MUCH YOU AGREE OR DISAGREE WITH EACH STATEMENT. SINCE THIS
IS NOT A TEST, THERE ARE NO RIGHT OR WRONG ANSWERS. THE
INFORMATION WHICH IS COLLECTED WILL BE SENT TO THE UNIVER-
SITY OF MASSACHUSETTS WHERE THE RESULTS WILL BE ANALYZED.
THE RESULTS FOR ANY GIVEN STUDENT WILL NOT BE SEEN BY ANY-
ONE WHO IS CONNECTED WITH THIS SCHOOL AND WILL NOT BECOME
A PART OF YOUR RECORD. YOUR RESPONSES WILL BE USED TO GET
A TOTAL PICTURE OF THE WAY STUDENTS, AS A GROUP, FEEL
ABOUT THIS SCHOOL.

YOU WILL NOTE THAT YOU ARE TO MARK ALL OF YOUR ANSWERS ON
THE SEPARATE ANSWER SHEET. TURN NOW TO YOUR ANSWER SHEET
SO THAT WE CAN FILL OUT SOME BACKGROUND INFORMATION TO-
GETHER. WHERE IT SAYS "SCHOOL", PRINT THE NAME OF THIS
SCHOOL. THEN MOVE OVER TO THE RIGHT SIDE OF THE SHEET
WHERE YOU ARE TO FILL IN YOUR NAME. READ THE INSTRUCTIONS
AT THE TOP AND MARK YOUR NAME AS INSTRUCTED. REMEMBER TO
FILL IN YOUR LAST NAME FIRST. PRINT ONLY ONE LETTER IN
EACH BOX. AFTER YOU HAVE PRINTED YOUR LAST NAME, FIRST
NAME, AND MIDDLE INITIAL, BLACKEN THE LETTER BOX BELOW
WHICH MATCHES THE LETTER THAT YOU PRINTED ABOVE............
(Allow sufficient time for this. Give as much help as
needed.)...
THEN GO DOWN TO THE BOTTOM OF THE SHEET. WHERE IT SAYS
"GRADE", BLACKEN THE SPACE WHICH CORRESPONDS TO YOUR
GRADE. FOR EXAMPLE, IF YOU'RE IN THE SEVENTH GRADE, BLACKEN
THE BOX WHICH HAS THE NUMBER SEVEN UNDER THE WORD "GRADE."
TO THE RIGHT, MARK THE MONTH AND THE LAST TWO NUMBERS OF
THE YEAR YOU WERE BORN. FOR EXAMPLE, IF YOU WERE BORN IN
THE MONTH OF JULY OF 1954, YOU WOULD BLACKEN THE BOX UNDER
THE WORD JULY IN THE "MONTH" COLUMN. THEN YOU WOULD PUT A
5 IN THE BOX AT THE TOP OF THE FIRST COLUMN UNDER "YEAR"
AND A 4 IN THE SECOND COLUMN. THEN YOU WOULD BLACKEN THE
NUMBER BOXES BELOW WHICH CONTAIN THE 5 AND 4 IN THE CORRECT
COLUMNS. IN MARKING THE YEAR OF YOUR BIRTH, BE SURE TO
FIRST MARK THE NUMBERS AT THE TOPS OF THE COLUMNS BEFORE
BLACKENING THE NUMBER BOXES. IN THE COLUMN MARKED "SEX"
INDICATE YOUR SEX BY BLACKENING B FOR BOY OR G FOR GIRL...

TURN NOW TO THE DIRECTIONS PRINTED ON YOUR SCALE ON THE
SIDE HEADED BY THE WORDS LEARNING ATMOSPHERE ATTITUDE
SCALE. READ THE DIRECTIONS THERE TO YOURSELF. RAISE
YOUR HAND IF THERE ARE ANY QUESTIONS.......................
(Allow a minute or so for this phase.)

READ EACH STATEMENT CAREFULLY. IN SOME CASES YOU MAY
NOT BE EXACTLY SURE WHAT A STATEMENT MEANS. TRY TO
ANSWER AS YOU UNDERSTAND THE STATEMENT. WE ARE INTER-
ESTED IN HOW YOU FEEL ABOUT EACH STATEMENT AS YOU
UNDERSTAND IT. THEREFORE, TRY TO AVOID BLACKENING
"UNDECIDED" IF POSSIBLE.

ARE THERE ANY QUESTIONS?........THEN TURN TO THE STATE-
MENTS YOU ARE TO RESPOND TO ON THE REVERSE SIDE. REMEM-
BER TO MARK ALL YOUR ANSWERS ON YOUR ANSWER SHEET WITH A
BLACK LEAD PENCIL. (Circulate through the group as the
students are working to be sure they are working correctly.)

(When it looks like most people have finished, proceed
with additional instructions.) WHEN YOU ARE SURE THAT YOU
HAVE GIVEN AN ANSWER TO ALL 30 ITEMS, TURN YOUR ANSWER
SHEET OVER AND LIST ALL OF THE SCHOOL ACTIVITIES IN WHICH
YOU TAKE PART. LIST SUCH THINGS AS MUSICAL GROUPS, SPORTS
GROUPS, CLUBS, AND STUDENT GOVERNMENT. (Answer any ques-
tions which students may have about whether a particular
activity should be listed.)

(When everyone has finished, go on with the instructions.)
BEFORE WE COLLECT YOUR MATERIALS, BE SURE THAT YOU HAVE
30 ANSWER MARKS ON YOUR ANSWER SHEET. ALSO, BE SURE THAT
YOU HAVE GIVEN US YOUR NAME, BIRTH DATE, AND SEX IN THE
APPROPRIATE WAY.

(Then collect all materials from each student separately,
if at all possible. When collecting materials, check to
see that the identification has been filled in.)

APPENDIX D

LEARNING ATMOSPHERE ATTITUDE SCALE

Directions for Administrators

THE SCALE YOU ARE ABOUT TO TAKE IS CALLED THE LEARNING
ATMOSPHERE ATTITUDE SCALE. IT CONSISTS OF 30 STATEMENTS
THAT A PERSON SUCH AS YOURSELF MIGHT MAKE ABOUT HIS OR
HER SCHOOL AND EDUCATION. WE ARE ASKING YOU TO TELL US
HOW MUCH YOU AGREE OR DISAGREE WITH EACH STATEMENT.
SINCE THIS IS NOT A TEST, THERE ARE NO RIGHT OR WRONG
ANSWERS. THE INFORMATION WHICH IS COLLECTED WILL BE
SENT TO THE UNIVERSITY OF MASSACHUSETTS WHERE THE RESULTS
WILL BE ANALYZED. THE RESULTS FOR ANY GIVEN STUDENT WILL
NOT BE SEEN BY ANYONE WHO IS CONNECTED WITH THIS SCHOOL
AND WILL NOT BECOME A PART OF YOUR RECORD. YOUR RESPONSES
WILL BE USED TO GET A TOTAL PICTURE OF THE WAY STUDENTS,
AS A GROUP, FEEL ABOUT THIS SCHOOL.

YOU WILL NOTE THAT YOU ARE TO MARK ALL OF YOUR ANSWERS
ON THE SEPARATE ANSWER SHEET. TURN NOW TO YOUR ANSWER
SHEET SO THAT WE CAN FILL OUT SOME BACKGROUND INFORMATION
TOGETHER. WHERE IT SAYS "SCHOOL", PRINT THE NAME OF THIS
SCHOOL. WHERE IT SAYS "GRADE", INDICATE YOUR PRESENT
GRADE. WHERE IT SAYS "TEST" INDICATE THE LETTER OR NUMBER
WHICH DESIGNATES THE FORM OF THIS SCALE. THIS INFORMATION
CAN BE FOUND UNDER THE TITLE ON THE FRONT OF THIS SCALE.
FOR EXAMPLE, IF YOUR SCALE IS DESIGNATED FORM B, YOU WOULD
MARK A "B" ON YOUR ANSWER SHEET IN THE SPACE MARKED "TEST".
THEN MOVE OVER TO THE RIGHT SIDE OF THE SHEET WHERE YOU ARE
TO FILL IN YOUR NAME. READ THE INSTRUCTIONS AT THE TOP AND
MARK YOUR NAME AS INSTRUCTED. REMEMBER TO FILL IN YOUR LAST
NAME FIRST. PRINT ONLY ONE LETTER IN EACH BOX. AFTER YOU
HAVE PRINTED YOUR LAST NAME, FIRST NAME, AND MIDDLE INITIAL,
BLACKEN THE LETTER BOX BELOW WHICH MATCHES THE LETTER THAT
YOU PRINTED ABOVE..
(Allow sufficient time for this. Give as much help as
needed.)..
THEN GO DOWN TO THE BOTTOM OF THE SHEET. YOU WILL FIND A
BLACK LABELED "FORM OF THIS TEST IS:" WHICH HAS EIGHT BOXES
MARKED A, B, C, D AND 1, 2, 3, 4. BLACKEN THE BOX WHICH
CORRESPONDS TO THE FORM OF YOUR SCALE. THIS SHOULD BE THE
SAME AS THE INFORMATION YOU PRINTED IN THE SPACE MARKED
"TEST" AT THE TOP OF THE SHEET. BELOW WHERE IT SAYS
"GRADE", BLACKEN THE SPACE WHICH CORRESPONDS TO YOUR GRADE.
FOR EXAMPLE, IF YOU'RE IN THE SEVENTH GRADE, BLACKEN THE
BOX WHICH HAS THE NUMBER SEVEN UNDER THE WORD "GRADE". TO
THE RIGHT, MARK THE MONTH AND THE LAST TWO NUMBERS OF THE

YEAR YOU WERE BORN. FOR EXAMPLE, IF YOU WERE BORN IN
THE MONTH OF JULY OF 1954, YOU WOULD BLACKEN THE BOX
UNDER THE WORD JULY IN THE "MONTH" COLUMN. THEN YOU
WOULD PUT A 5 IN THE BOX AT THE TOP OF THE FIRST COLUMN
UNDER "YEAR" AND A 4 IN THE SECOND COLUMN. THEN YOU
WOULD BLACKEN THE NUMBER BOXES BELOW WHICH CONTAIN THE 5
AND 4 IN THE CORRECT COLUMNS. IN MARKING THE YEAR OF
YOUR BIRTH, BE SURE TO FIRST MARK THE NUMBERS AT THE
TOPS OF THE COLUMNS BEFORE BLACKENING THE NUMBER BOXES.
IN THE COLUMN MARKED "SEX" INDICATE YOUR SEX BY BLACKENING
B FOR BOY OR G FOR GIRL......................................

TURN NOW TO THE DIRECTIONS PRINTED ON YOUR SCALE ON THE
SIDE HEADED BY THE WORDS LEARNING ATMOSPHERE ATTITUDE
SCALE. READ THE DIRECTIONS THERE TO YOURSELF. RAISE
YOUR HAND IF THERE ARE ANY QUESTIONS.......................
(Allow a minute or so for this phase.)

READ EACH STATEMENT CAREFULLY. IN SOME CASES YOU MAY NOT
BE EXACTLY SURE WHAT A STATEMENT MEANS. TRY TO ANSWER AS
YOU UNDERSTAND THE STATEMENT. WE ARE INTERESTED IN HOW
YOU FEEL ABOUT EACH STATEMENT AS YOU UNDERSTAND IT. THERE-
FORE, TRY TO AVOID BLACKENING "UNDECIDED" IF POSSIBLE.

ARE THERE ANY QUESTIONS?........NOW TURN TO THE STATEMENTS
YOU ARE TO RESPOND TO ON THE REVERSE SIDE. REMEMBER TO MARK
ALL YOUR ANSWERS ON YOUR ANSWER SHEET WITH A BLACK LEAD
PENCIL. (Circulate through the group as the students are
working to be sure they are working correctly.)

(When everyone has finished, go on with the instructions.)
BEFORE WE COLLECT YOUR MATERIALS, BE SURE THAT YOU HAVE 30
ANSWER MARKS ON YOUR ANSWER SHEET. ALSO, BE SURE THAT YOU
HAVE GIVEN US YOUR NAME, BIRTH DATE, AND SEX IN THE APPRO-
PRIATE WAY.

(Then collect all materials from each student separately,
if at all possible. When collecting materials, check to
see that the identification has been filled in. Be
especially careful that all students have indicated the
form of their scale on the answer sheet.)

APPENDIX E

OPEN-ENDED QUESTIONNAIRE

The following questionnaire is designed to give
you an opportunity to comment on your school and
education. You are asked to give your honest
and frank opinions in these questions. This is
not a test and there are no right or wrong answers.
Please feel free to answer exactly the way you feel
about your school and not how you think other people
(teachers, parents, students, etc.) might want you
to feel.

Curriculum Questions

1)   Do you feel that the subject curriculum that is
presently offered in your school is helping you
to reach goals that you have set for yourself?
Why?

2)   What do you think of your classes and the
assignments given in them?

Administration Question

3)   What is your reaction to the rules and regulations
in your school? Do they help your education or
hamper it?

Extra-Curricula Activities

4)   Please comment on the extra-curricula activities
      as they affect you. Discuss your role in school
      elections and big school events.

Facilities

5)   Do you feel that the appearance of your school,
      the types of classrooms and other facilities,
      helps or hampers your education? Why?

Teacher Role

6)   Please comment on the ability of your teachers
      to provide YOU with training and education. Do
      your teachers take an interest in you as a stu-
      dent? Are they able to provide education for
      all of the students that they have?

Self-Peer Relationships

7)   This question gives you an opportunity to comment
      on how you perceive your school in relation to
      yourself. Are you given the opportunity to do
      things that you enjoy, to express your own beliefs
      in school and class discussions? What type of
      success do you think you will have in this school?
      Would you prefer to go somewhere else to school?

APPENDIX F

DATA SHEET

School _____

Stu. No.	I.Q.	G.P.A.	Attend.	Extra- Curricular	Course	Grade	Sex	LAAS Score

APPENDIX G

EXTRA CURRICULA ACTIVITIES

1969 - 70

In an attempt to obtain information about participation
in extra-curricula activities, we may have missed some
activities in which you participated last year. Would
you please list ALL activities in which you participated
last year? These activities could involve school athle-
tics, plays, music, intramurals and many types of clubs.
The intent here is to obtain a complete listing of extra-
curricula activities that is accurate. It shouldn't take
long, but it will be of great help in getting the proper
information. Remember, the activities you should list
are for last year, not this year.

List of Activities

1969 - 70

APPENDIX H

OPEN-ENDED QUESTIONNAIRE

RATING FORM

Student I.D.	1	2	3	4	5	6	7	Total

APPENDIX I

Sample Responses to the Open-Ended Questionnaire

1) Do you feel that the subject curriculum that is presently offered in your school is helping you to reach goals that you have set for yourself? Why?
No, there should be a wider variety. Everyone in the classical or technical college course usually are going into college, but not for the same profession. So why should everyone in the classical or technical course have the same subjects?

Yes. I think it offers many courses and class. Different types of subjects and 2 languages. But I think there should be at least 5 different types of languages.

2) What do you think of your classes and the assignments given in them?
In our classes we never do any different (except in English). We go through the same old monotony every single day. Day in and day out. The classes are so boring its difficult to pay attention without falling asleep. As for the assignments there pretty good except for one teacher. She piles on the home work every night and gives quizzes or tests every other day. That's just too much to take.

Most of my classes are worth while now. Some assignments are ridiculous such as coloring in maps and copying things. I have some classes earlier this year that were ridiculous, such as Mr. Wenk's.

3) What is your reaction to the rules and regulations in your school? Do they help your education or hamper it?
I believe the rules of this school are pretty good except for some freedoms I think some of the students should be allowed. I don't think they bother my education at all.

They say we have no dress code but they still send kids home if they're not dressed properly. What difference does it make you you dress. The same goes for the smoking rules.

4) Please comment on the extra-curricular activities as they affect you. Discuss your role in school elections and big school events.
They break up the day and make it bearable. I go to football games and dances and I'm on a sport after school. I think they are very good.

The extra-curricular, well we haven't any. The big
school event, well we haven't any of them either. The
school elections aren't worth mentioning.

5) Do you feel that the appearance of your school, the types
of classrooms and other facilities, helps or hampers your
education? Why?
Hampers, yes. I disliked the miserable colors they
used in building this school. It shows the lack of
concern of a normal person's tastes. The classrooms
are too full and noisy, thus taking away from learning.

I believe it hampers my education. I have gotten it
from a reliable fact that Wareham has spent $2000 for
science while spending $80,000 for sports equipment.

6) Please comment on the ability of your teachers to provide
YOU with training and education. Do your teachers take
an interest in you as a student? Are they able to pro-
vide education for all of the students that they have?
I don't think that a teacher can give help if the stu-
dent doesn't want it. I don't think all the teachers
try enough. Most teachers do.

Some do and some don't. I could teach better than some
of them. Not many make sure everyone understands some-
thing.

7) This question gives you an opportunity to comment on how
you perceive your school in relation to yourself. Are
you given the opportunity to do things that you enjoy, to
express your own beliefs in school and class discussions?
What type of success do you think you will have in this
school? Would you prefer to go somewhere else to school?
I am given every opportunity to express my opinions in
class and if conditions stay this way I think I will go
far in school. I enjoy it here except for a few prob-
lems and I prefer to remain here.

I would like to transfer to ANOTHER SCHOOL MOST DEFI-
NITELY.

APPENDIX J

Reliability of Raters of Open-Ended Questionnaire

	Rater 1	Rater 2	Rater 3
Rater 1	1.0000	0.8773	0.9295
Rater 2	0.8773	1.0000	0.9376
Rater 3	0.9295	0.9376	1.0000

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