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PERCEPTIONS OF TEACHERS AND STUDENTS TOWARD THE UNIT  
STEP PROGRAM IN ITS FIRST YEAR OF OPERATION IN ONE  
MICHIGAN SENIOR HIGH SCHOOL

By

James R. Ryan

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## ABSTRACT

### PERCEPTIONS OF TEACHERS AND STUDENTS TOWARD THE UNIT STEP PROGRAM IN ITS FIRST YEAR OF OPERATION IN ONE MICHIGAN SENIOR HIGH SCHOOL

By

James R. Ryan

This research was designed to measure the differences in perception toward the Unit Step program on an intra- and inter-group basis of teachers and students in one Michigan senior high school. The design of the study was post-test-only. The treatment for both teachers and students was the Unit Step program in its first year of operation.

The questionnaires administered to faculty and students were constructed for this purpose. The forms were matching in content and were administered on the same day to both groups in separate locations.

The questionnaires were separated into three parts. The parts, Perception of Program and Others, Perception of Program and Self, and Perception of Program, were used to categorize responses of students and teachers to the questionnaires. The parts were applied to the questions this study considered. They are:

1. What is the estimate of difference in perception of the Unit Step program among teachers in the various length-of-service categories?
2. What is the estimate of difference in perception of the Unit Step program between male and female teachers?
3. What is the estimate of difference in perception of the Unit Step program between teachers who have bachelor's degrees to teachers who have master's degrees?
4. What is the estimate of difference in perception of the Unit Step program between tenure and probationary teachers?
5. What is the estimate of difference among the various curricular departments in the perception of the Unit Step program?
6. What is the estimate of difference in the perception of the Unit Step program between 10th and 12th graders?
7. What is the estimate of difference in perception of the Unit Step program between boys and girls in grades 10 to 12?
8. What is the estimate of difference in perception of the Unit Step program among students in grades 10 to 12 in the various academic grade categories?
9. What is the estimate of difference in perception of the Unit Step program between students who will continue their education beyond high school and those who do not plan on continuing their education beyond high school?
10. How do the perceptions of teachers compare with those of students in the following three areas:
  - a. Perception of this program and others
  - b. Perception of this program and self
  - c. Perception of this program
11. What are the most favorable and least favorable aspects of the Unit Step program as perceived by teachers and students?

Estimates of differences in program perception as analyzed from responses to survey instruments constituted the criteria measures.

The total Unit Step population of teachers and students was surveyed. Among the teachers, 38 out of a total high school staff of 48 were involved in Unit Step and each responded to the questionnaire.

There was a total of 974 students enrolled at Howell Senior High School for the 1969-70 school year. Of this number 863 were present for the survey. Because of spoiled optical scanning sheets from this group, it was possible to use only 680.

One of three techniques was applied in this study for analysis of each question considered in this study: 1) the t statistic or a combination of t statistic and analysis of contingency table (ACT); 2) a combination of one-way analysis of variance and ACT; or, 3) content analysis. The level of significance for rejecting similarity of program perception was set at five per cent.

The major findings which emerged from this study were:

1. Of the fifteen categories of teacher perception that were studied and measured, three showed a significant difference in how those parts of the Unit Step program were perceived. Those parts were: how male and female teachers viewed the program affecting others, and how they saw it affecting themselves; and how tenure and

probationary teachers saw the program affecting themselves.

2. There were very few teachers who took extreme positions in program perception. Most either tended to agree or disagree in their views. Students tended to more favorably rate the program.
3. There was a total of twelve categories of student perception that were studied and measured. Of these, five displayed a significant difference in how those parts of the Unit Step program were perceived. Those five areas were:
  - a. Male and female student perception of the program and others;
  - b. Male and female student perception of the program and themselves;
  - c. Male and female student perception of the program, per se; and
  - d. Students who will and won't continue their education and their perception of the program and its relationship to others and to themselves.
4. Significant differences were present when the means of students and teachers were compared. Each group perceived the Unit Step program differently in relation to others, self, and program.

A word is offered in reference to the findings. The findings as listed above which reflect upon the category

Perception of program for both teachers and students are inconclusive. It is this category which showed low instrument reliability. The sections explaining reliability of instruments in Chapter IV and recommended replication of study in Chapter V give further information on this.

## DEDICATION

To Phyllis, my wife, whose love and patience  
throughout this project were both invaluable  
and inexhaustible.

To Scarlett and Sheridan, my other two lovely  
girls, who seemed to thoroughly enjoy this  
entire venture at Michigan State University.

To my Father and Mother, whose faith and encouragement  
in the beginning made this possible.



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The faculty and students at Albion Senior High School who took part in the field test are a valuable part of this study. I am grateful to them and to Mr. Max Matson, principal, for participating.

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## CHAPTER I

### INTRODUCTION

#### The Problem

##### Need for Change

Leaders in education are voicing increased concern over the need for change in the schools of America. The demand for relevance in our schools which began in the sixties will continue into our present decade where evidence of fruition will be the new demand.

The late Earl C. Kelley as early as 1947 remarked that change is so certain that it is a constant; J. Lloyd Trump (1961) says it's time to focus on change in an atmosphere where traditional ways of doing things have hardened potential change agents; in another work, Trump (1965) directs the educator to forces of individual student worth instead of maintaining a school atmosphere which turns people into automatons; Glen Heathers (1966) speaks of the nation's concerns with regard to the full utilization and recognition of individual student talent.

Robert N. Bush and Dwight W. Allen (1964) describe new societal demands for change within the schools and remark:



. . . the new possibilities now envisioned for realizing the potential inherent in each person have combined to cause the level of education considered minimum for each young person to leap far ahead of that for the current generation of adults. These new possibilities and demands have generated pressures that so bear down upon the high school as to cause it to burst apart unless a new design with greater flexibility is introduced to guide its present operation and to permit it to respond and adapt.

Education as it is commonly practiced today deals with problems in terms of what tradition demands. Bigge (1964) succinctly cites a historical educational frustration.

Ever since education became formalized in schools, teachers have been aware that learning in school is often highly inefficient. Material to be learned may be presented to students innumerable times without noticeable results. Many students appear uninterested. Many become rebellious and make serious trouble for teachers. Consequently, classrooms often have seemed like battlegrounds in which teachers and students made war against each other.

Generally, Bigge concludes, improvement is fragmented as evidenced by a haphazard addition or subtraction of courses which turn out a finished product not unlike a patchwork quilt.

#### Howell's Effort to Change

Implementation of the Unit Step program at Howell brought broad curriculum changes. The ungrading of disciplines affected by Unit Step was undertaken by teachers and provided a number of courses for students that didn't exist in the traditional program.

The 3 R's.--This expansion of the curriculum could raise some concern regarding the teaching of the familiar

and traditional 3 R's. The benefit to be derived from the expansion of course offerings need not be accompanied by a deterioration of these concepts. Evidently the decreased amount of time spent on reading, writing, and arithmetic has been more than compensated for by the incidental learning of the fundamentals in the process of studying these other subjects (Ausubel, 1966).

David Ausubel points to the desirability of an expanded curriculum by highlighting the merits to be gained.

Generally speaking, maximal breadth of the curriculum consistent with adequate mastery of its constituent parts is developmentally desirable at all ages because of the tremendously wide scope of human abilities. The wider the range of intellectual stimulation to which pupils are exposed, the greater are the chances that all of the diverse potential, both within a group of children and within a single child, will be brought to fruition. A broad curriculum makes it possible for more pupils to experience success in the performance of school activities and thus to develop the necessary self-confidence and motivation for continued academic striving and achieving. (From John DeCecco's Human Learning in the Classroom.)

Tracking of Curriculum.--When the Unit Step was incorporated into the Howell program, tracking of the curriculum was removed. Until recently the proponents of either heterogeneous or homogeneous ability grouped classes found supporting research to be fairly evenly divided. A study by Eckstrom (1959) where mean scores in student achievement were compared between control and experimental population showed no clear and consistent effects of ability grouping on achievement (Borg, 1966). Passow (1962)

suggested a need for more research into the area of ability grouping because virtually all of the studies in this area that had been conducted up to this time failed to measure ways in which the instruction given to ability groups compared with that given to heterogeneous groups.

But other major studies in the 1960's seem to weigh against the tracking program. Heathers (1967) showed that teachers don't employ as effective teaching techniques with the slow learner as with the superior student. The results of a study by Squire (1966) also showed that teachers tend to employ dull, unimaginative approaches with slow learning groups. The Equality of Educational Opportunity Report of 1967 issued by the United States Civil Rights Commission and the 1967 Report of the United States Commission on Civil Rights both provide evidence of the harmful effects upon children of ability grouping. The 1967 decision of Judge J. Skelly Wright of the federal district court of Washington, D. C., to abolish the tracking program in the high schools of that city was arrived at on two counts: schools both racially and socially segregated "damage the minds and spirits of all who attend them." Rosenthal and Jacobson (1968) refer to the "self-fulfilling prophecy" in their studies that is produced by ability grouping when slow learners receive continual reinforcement from their environment which convinces them of their lack of ability.

Program Novelty.--It is predicted that program novelty will have an effect upon the responses to the questionnaires from both teachers and students. Experiments indicate that increased novelty is associated with high reinforcement potential (satiation) and, conversely, decreased novelty is associated with diminished reinforcement potential (Glaser, 1969).

The variable novelty stimulus can usually be manipulated by prior exposure of the subjects to similar or dissimilar stimuli (Encyclopedia of Educational Research, 1969). Prior exposure would require considering involvement of students and teachers in the planning stages of Unit Step, thus raising a question regarding the value of student participation in curriculum change.

Adolescent Involvement.--Research by Piaget, Inhelder and their associates (1958) ascribes to early adolescence (ages 11-15) the end of the stage of intellectual development. From this point on in intellectual development the adolescent is now capable of arriving at conclusions without external assistance. In general, the adolescent at this time achieves capabilities possessed by most adults. Some of these characteristics are: critical evaluation of one's own thinking, theory construction, and capacity for abstraction.

Involvement of adolescents in programs designed specifically for them was shown to be important as a result of

a study done in ten northern Illinois high schools (Coleman, 1961). This research discovered the presence of an "adolescent sub-culture" which has certain norms, values, and aspirations unlike those found in the adult culture and, indeed, which may be in conflict with the adult culture.

The adolescent sub-culture relies heavily on the values and aspirations of the peer group rather than on the family or teacher. Adolescents generally do not follow models for behavior of an intellectual nature. Rather, boys are motivated by models representing masculine roles, for example, athletics, and girls motivated by models representing feminine roles, for example, certain school extra-curricular activities. Knowledge of these and other adolescent characteristics could significantly contribute to subject matter content by involving adolescents in curriculum decision-making.

Ausubel (1966) found that many students at the adolescent stage of development are ready for exposure to solid academic material, but unfortunately suitable instructional programs geared to an advanced level of critical and independent thinking are rarely available. Very little has, in fact, been done in the way of providing high school students with a meaningful, integrated, systematic view of the major ideas in a given field of knowledge. Adolescent involvement in programs designed for them would provide another perspective on course development.

It may be assumed from previous research (Glaser, 1969) that novel or unfamiliar situations increase exploratory behavior. The opportunity to choose from a greater variety of courses in the curriculum should provide for students several channels for exploration.

Novelty is a variable that is very difficult to control in this study. This shouldn't, however, detract from the value of the results. Novelty is an enigma in research that will be present in each subsequent Unit Step program, controlled only by the degree and type of introductory methods used.

#### Purpose of this Study

The purpose of this study is to determine the extent of similarity and difference between students and teachers on how each perceives various phases of the Unit Step program. These determinations will enable directors of the Unit Step in Howell to discover where weaknesses may lie in order to make needed corrections before procedures become routine. Weaknesses in this case would be situations that display sharp diversities of opinion toward the Unit Step program between teachers and students and within their own ranks.

This study is concerned only with perceptual strengths and weaknesses on an intra-school basis and within and between two groups of people. No attempt will be made to make comparisons between Howell and any other school functioning

on the Unit Step (or similar program), or with traditional school programs used as control models.

This comparison of perception of program effectiveness may reveal a high degree of program approval by both teachers and students. This fact, however, would not necessarily mean that the Unit Step is a good program. It is not the purpose of this study to measure the merit of Unit Step, but rather how it is perceived by two groups of people and the degree of relationship between those perceptions.

#### Need for this Study

The need for this study is twofold. In order for the Unit Step to succeed it is necessary that the on-going information provided teachers and administrators who are directing the program in Howell be accurate and complete. Proper methods of evaluation and analysis are, therefore, essential. Two instruments have been constructed, one for the faculty at Howell Senior High School and the other for the students at Howell Senior High School (Appendices A and B).

Secondly, results of this study may be of value to other schools initiating the Unit Step program. The Unit Step concept is presently being practiced in five Michigan senior high schools. The Fall of 1970 will see additional schools implement the Unit Step. Administrators who initiate this program in the future will have this study of first year perceptions available to them.

### Questions for Study

The questions that this study will attempt to answer are:

1. What is the estimate of difference in perception of the Unit Step program among teachers in the various length-of-service categories?
2. What is the estimate of difference in perception of the Unit Step program between male and female teachers?
3. What is the estimate of difference in perception of the Unit Step program between teachers who have bachelor's degrees to teachers who have master's degrees?
4. What is the estimate of difference in perception of the Unit Step program between tenure and probationary teachers?
5. What is the estimate of difference among the various curricular departments in the perception of the Unit Step program?
6. What is the estimate of difference in the perception of the Unit Step program between 10th and 12th graders?
7. What is the estimate of difference in perception of the Unit Step program between boys and girls in grades 10 to 12?



8. What is the estimate of difference in perception of the Unit Step program among students in grades 10 to 12 in the various academic grade categories?
9. What is the estimate of difference in perception of the Unit Step program between students who will continue their education beyond high school and those who do not plan on continuing their education beyond high school?
10. How do the perceptions of teachers compare with those of students in the following three areas:
  - a. Perception of this program and others
  - b. Perception of this program and self
  - c. Perception of this program
11. What are the most favorable and least favorable aspects of the Unit Step program as perceived by teachers and students?

#### Limitations of this Study

There was a number of student responses that were either totally unusable or usable only in part. The total number of students participating in this study was 863. Of that number, 91 forms were spoiled because of patterned answers, failure to respond to several statements, and marking in areas where no answer was called for. This indicated that either instructions that were given were vague or misunderstood by this segment of the student population, or that some students lacked the proper attitude required

for the survey. The failure of the survey to include this point of view omits what could have been an important part of the total student attitude.

In addition, there was another set of optical scanning sheets turned in that could not be used. There were 92 returned which did not have demographic information included. This is attributed to either instructions not being made clear enough, or simply that these students were sitting in those parts of the gymnasium which weren't well covered by the public address system. This information would have been included in the results of this study, but there would have been no way to allow for accountability when necessary to do so.

#### Definition of Terms

The following definition of terms is given before discussing educational research that tends to reflect upon the Unit Step concept.

Other program (traditional)--Semester or yearly basis program at Howell before introduction of Unit Step.

Perception--Personal interpretations given to various aspects of the school organization and toward people who comprise the school setting in the Unit Step program.

Shift--One eight week time period in which an average class load of five courses may be taken. Courses may be completed during this time and a letter grade and credit earned. Some courses may be sequential in nature, or of a year's duration, with a letter grade and credits awarded after satisfactory completion of the total sequence. This latter example is not referred to as a shift.

This program (Unit Step)--A method of organizing the school curriculum and fitting it into shorter modules of time rather than into the traditional semester or year plan.

Tracking--Ability grouping of youngsters in the senior high school where placement in the groups (college preparatory, vocational, business, general) is determined by standardized test results.

Ungraded--The addition of courses into various disciplines which are selected by students with some staff assistance, on the basis of interest rather than by grade (10,11,12) classification.

### Plan for the Study

Chapter I deals with an introduction to a study of the Unit Step plan in one Michigan senior high school. This chapter looks at the problem by examining the need for change and Howell's effort to create change. The purpose and need for this study are also examined. The questions that this study attempts to answer are stated, along with the limitations of the study. Finally, a glossary of terms and their definitions as applied to the study are given.

Chapter II looks at the rationale, conception and description of the Unit Step plan. Rationale for similar programs in other school districts is given. Conception and description in this chapter apply to the Howell program, per se. The various roles of the teacher, counselor, student, and principal are reviewed. The evaluation plan of the school is briefly described.

Chapter III deals with the design and method of the study. The sample and survey instruments are examined, along with the method of analysis. Demographic variables

are defined and explained. The field test and survey are also described.

Chapter IV contains the analysis of the data, and Chapter V reports on summary, conclusions, discussion and recommendations.

## CHAPTER II

### PROGRAM RATIONALE, CONCEPTION AND DESCRIPTION

#### Rationale

##### Howell

Before implementation of Unit Step the educational program at Howell followed a traditional pattern. Every course was taught for a full year, or at least a semester. The degree of course exposure to all students was, consequently, extremely limited. Howell subsequently shifted into shorter terms to accomplish a number of goals that were considered unattainable in a semester arrangement. The vastly increased opportunity to take more courses is, in fact, the raison d'etre for the Unit Step. There are several features pertaining to this point which provide support.

For one thing, courses can be taught at levels designed to meet student needs. Courses traditionally taught in a year are divided into subject areas of greatest interest to students. Students in turn are, except where adult guidance is desired and necessary, to select those courses that interest them most. Teachers can also specialize more with their particular concerns and major areas, thereby giving the students daily material that is presented from a broader interest-base.

Special interest opportunities are available to students in other ways. The students with special academic abilities have a greater opportunity to explore and engage in their particular interests. Eight week courses will also give students who are weak in particular areas a chance to become better acquainted with a body of knowledge with less investment of their time.

Investment of time is important in another way. Students pass or fail in eight weeks, not a semester or year. The penalty for loss of time because of failure in this situation is less severe than in a traditionally set school year. Students who do fail an eight week course have two options. They may pick the course up again the same year or in some succeeding year, or may select another course in an area that more closely matches the interest and ability levels of the student.

The rationale for shorter terms in Howell was used to implement the Unit Step at other Michigan high schools in Albion, Saugatuck and Hesperia. Ring Lardner Junior High School in Niles will be embarking upon the quarter system at the beginning of the 1970-71 school year. The rationale for the Niles program is not unlike the programs at other schools described in this chapter.

#### East Lansing, Haslett and Okemos

In August of 1969 a feasibility study of three contiguous Michigan school systems was completed. The study centered on

the extended school year and the quarter system (four 9 week terms) and their applicability to the East Lansing, Haslett, and Okemos school districts. For each the quarter system was recommended because the increase in course offerings would better meet the needs and interests of students in preparing for their life's work. The shorter terms require greater student participation in the selection of courses and in scheduling of classes than is normally found in a semester arrangement.

It was further suggested in this study that shortened courses will allow for more exposure to subject-area disciplines and to a greater number of people. Students would have an opportunity to come in contact with some vocational areas that they otherwise might miss. This early contact may help some decide which vocational areas to avoid and which are attractive to them, thereby sparing for many students this process of elimination as adults. Students on the quarter system will, in addition, meet many more people, both students and teachers, because this opportunity is created by taking a greater number of classes.

It is the feeling of Okemos educators that not withstanding several changes in recent years in the mechanics of education, e.g., reorganization of the school curriculum and different class scheduling techniques, the American high school has changed relatively little in purpose. While our society and environment grow more complex, schools generally

fail to provide students with educational breadth. Rather, they are both narrowly trained and fail to receive adequate exposure to the various disciplines.

In addition to the feasibility study, Okemos has additional rationale for the quarter system:

Currently an American history teacher with interests in a particular aspect of the subject spends much more class time in his interest area than many students may feel is deserved . . . although it may be excellently done, it is still at the expense of students who may not share teacher's interest in the particular area. (In the quarter system), the teacher would more likely be teaching in an area of his interest and would be teaching those students whose interests would more nearly coincide with his particular expertise. The student, on the other hand, would have many additional options to choose (sections) from within traditional courses for an 'in-depth' study, which would be more in line with his personal interests.

### Fowlerville

Another Michigan senior high school that operates with the shorter term is located in Fowlerville. Nine week terms have been in existence there for five years and are referred to as "flexible content." The four subject areas that are taught on this basis are communication, social science, home economics, and physical education.

Shorter terms were developed at Fowlerville in order to accomplish a set of objectives considered to be unattainable via the traditional semester structure:

.The content of the curriculum should be relevant to the student;



.The student should have an opportunity to choose content that will satisfy a known need;

.The curriculum should provide specific and in-depth study opportunities; and

.The teacher should have an opportunity to teach content that reflects his major interest in his major field.

#### Newton Centre, Massachusetts

At Meadowbrook Junior High School in Newton Centre, Massachusetts, classes are of a twelve week duration. The shorter classes impress one as being more a means to an end rather than as ends in themselves. Little emphasis, in fact, is placed on the shorter terms in the material that is written about this program. Apparently, the twelve week terms are not treated merely as vehicles for the singular purpose of providing more opportunity for students to take a greater number of classes in their school career.

Officials at Meadowbrook recognize that this is a period in American history that rivals no other in abundance of material goods. At the same time racial unrest, the increasing crime rate, drug use and abuse, and other societal problems could destroy this super-abundance. With all our ability to produce and distribute goods, say the officials at Meadowbrook, there are growing human problems that are incessant in their demand for our attention. At Meadowbrook the problems of society are considered to be those of the school.

There are two primary objectives in embarking on the Meadowbrook plan that arose from the problems of American society. First, there is an attempt to develop in students the skills and competencies needed for living in a highly technical society. Secondly, there is an attempt to develop in students the skills and competencies for living cooperatively and fruitfully with the full range of cultural and individual differences which are represented in our society. To accomplish this dual purpose, it is thought necessary that the school and community recognize that "HOW the student learns to think about himself in the society is equally as important as WHAT he learns."

Following is a brief description of the Meadowbrook organization structure:

Classes are divided into units. There are four units or parts that operate within this framework: Alpha, Beta, Gamma, and Sigma. Each part has the following composition:

- 232 students
- 2 science teachers
- 6 social studies/English teachers
- 2 mathematics teachers
- 2 foreign language teachers
- 1 guidance counselor

In addition, all units share in the use of teachers from specialty areas:

- 2 art teachers
- 2 music teachers
- 3 industrial arts teachers
- 2 home economics teachers

5 physical education teachers  
1 typing teacher  
1 librarian  
1 reading specialist  
1 audio-visual specialist  
8 teacher aides

Charles E. Goff, the director of research at Meadowbrook, explains the function of these parts. "Within each unit the students are broken down into 'Houses' and each academic teacher becomes a 'House Advisor' for approximately 20 students. The House is made up of a balance of seventh grade, eighth grade, and ninth grade students. It is in this setting where students and advisor talk, plan, and think together. Course selections, long and short range educational planning, as well as discussion of personal goals and aspirations, are some of the concerns brought to House."

It is the intent of officials at Meadowbrook to construct an organization which serves three fundamental purposes:

1. To provide a supportive environment through the house advisor and the teaching team;
2. To provide a choice for students through course selection; and
3. To provide a more appealing and meaningful curriculum.

From this comes the rationale for the Meadowbrook program:

The Meadowbrook program is concerned with a way of living and learning. This way of living and learning can be used by any group of teachers and pupils in a school of any size. It has been designed to bring together the inseparable activities of teaching and learning and to provide an opportunity for both students and faculty to work to their best advantage; a favorable environment in which to do it; a closer and more cooperative relationship.

It is an organization of school life based upon the following philosophical ideals -

. . . that inherent in man's existence is the right to develop this individual potential

. . . that given the opportunity, man will select goals which are beneficial to both self and society

In order to implement the purposes of the project, a unique setting must be provided, and the philosophical attitude toward the individual and the learning climate must be described.

### Conception of Howell Unit Step

#### How Unit Step Emerged

John Kremkow, administrative assistant in the Howell Public Schools, has developed a different system of organizing the curriculum in the senior high school. Before coming to Howell in 1968, Mr. Kremkow was a senior high school principal when he first developed this concept which he has labeled "Unit Step."

While working in a small school before coming to Howell, several educational travesties came to the attention of Mr. Kremkow. He noticed that many teachers, because of the size of the school, were instructing classes that were out of their fields of preparation. It was also apparent

that those with vastly opposed philosophies of approach to teaching were finding their relationship to colleagues becoming strained. From this came the idea of matching teacher abilities and interests as closely as possible to subject area preparation along with contact to colleagues of compatible educational viewpoints. This produced a noticeable increase in staff harmony and resulted in similar student needs being recognized.

It was decided to give youngsters a similar opportunity by providing for them what was felt to be fundamental educational needs. It is generally believed that youngsters have abilities that educators often are not able to develop properly because of administrative problems created by traditional approaches. This initial thought led to the expansion of the school curriculum in several disciplines and was the beginning of the Unit Step program.

#### Introduction of Unit Step in Howell

Introduction of Unit Step to the Howell staff was gradual. Exposure first began on an individual and then on a departmental basis. After teachers began to show sufficient interest, a workshop was set up for staff members wishing to participate. It was here that the Howell teachers first heard of the Unit Step program from other teachers and students who were experiencing this concept in another school system.

Following this, various departments began to work on a list of courses which were thought to be stimulating and of interest to students. After preparing a complete list of course offerings, the administrative assistant and teachers from the junior and senior high schools met with the Howell Board of Education to present their proposal on Unit Step. The Board of Education approved the idea and it was then that the staff began to think about working on course content.

This program wasn't given the hard sell approach in Howell. Outside of speeches to groups such as the Parent-Teachers Association and sundry articles on Unit Step appearing in the local newspaper, publicity was primarily contained in an intra-school environment. It is at this point in the program, however, that efforts are being made to achieve parent and community participation in the program by such methods as the encouragement of constructive criticism and the use of local adult talent in classroom lecturing as the Unit Step program expands. The philosophy behind this approach apparently is one that recognizes the school had better know where it's going before laymen are invited on the trip.

### Description of the Howell Program

#### What is Unit Step?

The Unit Step concept, as stated above, is a different way of organizing the curriculum. Traditionally, courses

are set up on either a semester or two semester basis, but Unit Step divides the school year into smaller parts. The school year in Howell is divided into five eight week "shifts." The curriculum areas which offer eight week courses are English, history, physical education, homemaking, industrial arts, art, science and some mathematics and business courses. Courses that remain full year courses are algebra I and II, geometry, pre-calculus, chemistry, physics, typing, choir, band, French, Spanish, Latin, and some business courses.

The five shifts in a sense represent the traditional marking periods. Within each of these periods of time students may be enrolled for as many as five or six different courses, but each (with some exception) is completed within the eight week span of time and a final grade and credit are awarded. Upon completion of one shift, in other words, a student then moves on to another set of courses. Those courses that are taught on a full year or sequential basis are worth five credits at the end of the year if each course is completed satisfactorily. For example, in the foreign language area a student would take a language for five consecutive shifts during the regular academic school year; as each is passed a credit and grade are awarded.

To graduate, a student must have at least 75 credits. Of these credits, up to 15 may be from the non-academic areas--physical education, art, band and chorus.

While Howell has retained the A to E grading system as an evaluation measure, the philosophy has changed somewhat toward grading from what it was in the traditional program. A failure in the Unit Step program is a failure for only eight weeks, not for a semester or full year as is true in sequential courses. The counseling department reports that while grades have generally improved in the Unit Step, when E's are issued it is realized that this has less of a punishing effect because of the eight week period of time.

There are no required courses in the curriculum. There are, however, a required number of credits to accumulate in four subject areas. Ten credits are required in English and social studies, as are three in government and five in American history. A selection of 89 courses is available in the social studies discipline, 27 in American history, 6 in government and the remainder, 56, in diverse subject areas. The English department offers 69 courses.

One of the primary differences between the Unit Step and traditional approach are the number of courses to which a student is exposed. Assuming that a normal course load of six classes for a semester are carried by a student, the number of individual course exposures that are possible in the semester arrangement could not exceed twelve for a school year. On the same daily schedule with the Unit Step this number of course exposures grows to a maximum of thirty



for the academic year, providing sequential courses with only one title, for example, French, aren't considered.

A complete listing of course offerings by titles is contained in Appendix C. These offerings, with synopses, are prepared in three separate booklets, one for students in each grade, 10-12. This establishes guidelines for spreading out required and elective courses. There is, of course, a good deal of overlapping of courses which enables sophomores, for example, to be in classes with juniors and seniors.

#### Role of the Teacher

The Unit Step program has made it necessary for teachers to become directly involved in scheduling of classes and academic counseling of students.

Each year students are given a full list of course offerings and their synopses. Students are requested to take this information home and discuss it with their parents. In addition, supplemental course exposure is given at a designated time when teachers, in their classrooms, discuss their various courses and answer questions of students in regards to course offerings just prior to the pre-enrollment date.

Placement of students in the various courses offered by Unit Step is accomplished primarily through a testing program. In information given to teachers regarding testing,

Howell school officials have described the role tests are to play in the Unit Step program. "Tests will indicate when a child needs more work in vocabulary or grammar and they are placed in a reading class with others who have similar difficulty. Testing, such as the Iowa Basic Skill tests or the SRA Iowa Test of Educational Skill, will indicate to all what skills need improvement and what skills are subject to advanced development."

In addition to tests being a determinant in student placement, counselor and teacher assistance is rendered. In courses where the skill areas are not stressed students maintain a large degree of freedom of choice.

The most important counseling assist given by the classroom teacher is through a large group assembly program. There are two days set aside for this activity in the school gymnasium. Each grade is presented this program at separate assemblies. In actual planning for this program the various departments meet and decide on those courses which will be presented for discussion in the assembly. Generally, courses are emphasized that have low enrollments. The presentation is also moved over to the junior high school for the 9th graders. Seniors, who are not included in this program, may leave school at the conclusion of any shift if all graduation requirements have been met. They then return for graduation ceremonies in the Spring.

In about the middle of each school year (February or March), students select courses for the next year during pre-enrollment. At this time between 25-35 courses are chosen by each student. Twenty-five may be first-choice courses and 5 or more may be alternate choices. The number of first-choice courses for each student will be based upon his desire to take 5 or 6 courses per shift. Half-day students may only sign up for 3 or 4 courses per shift, bringing their total to 15 or 20 courses for the year.

Like the large group assembly, pre-enrollment also takes place in the gymnasium. Here teachers, upon request of the students, may again give out specific information to students about their courses. In addition, students possess two data sheets. One contains test scores (ITED) and the titles of courses that the student is enrolled in for the present school year, and the other contains the next year's tentative course schedule (Appendix D).

After students definitely decide on a particular set of courses for the next school year, it is then necessary for them to visit each instructor in the gymnasium on pre-enrollment day. They must obtain an instructor's signature for each course desired, including alternate courses (Appendix E). Before deciding to include a student in his class, the instructor first peruses the three pieces of information discussed above that are found on the two data sheets--ITED test scores and present courses on one sheet, and the tentative program for next year on the other. For multiple-section

courses, one teacher may be designated to represent a group of teachers by being the one to approve, or sign for, courses for a group of teachers.

Pre-enrollment determines the size of the following year's classes. In addition, those courses which have fewer than twelve students are usually dropped. When this occurs students who are thus affected are informed by the counseling department and advised to make an alternate course choice.

Pre-enrollment, besides determining how many sections of a course will be offered, also affects teacher assignment. Each department has teachers "in reserve" to cope with overloaded sections. In other words, instead of some teachers being given 25 course assignments for the next school year at scheduling time, they may receive only 22 or 23 assignments in order to absorb expected overloads occurring from popular elective courses.

Teacher involvement in scheduling of classes is quite extensive. The number of courses a student selects at pre-enrollment time determines what courses will be retained and which will be dropped from the curriculum for the coming school year. Teachers are given a card for each class they will be teaching by the principal after he determines how many sections are to be given to each course. His office distributes the necessary number of cards to each teacher. This means that each teacher would receive 25 cards, based upon a 5 hour teaching day, 5 shifts per school year. Those

not included are teachers kept "in reserve," as mentioned above, or who teach sequential courses.

Teachers then meet, by departments, to fill in the schedule boards. There are five schedule boards, each 5' x 8' in size. There are five boards in order to accommodate the entire staff and afford easy visibility and make it simpler to make needed alterations. Horizontally, the boards are divided into the five shifts per year. Vertically, teachers are listed alphabetically and by department. Each teacher then takes the 25 cards (or less) he received from the pre-enrollment data compiled in the principal's office and assigns himself five courses per shift. Assignments are made on the basis of when the instructor wants to teach a particular set of courses. Single section courses may create a problem when two instructors, for example, want the same group of students the same hour during the same shift. Compromises are necessary in cases such as this.

Stepladders are used by the staff to assist teachers in filling in the schedule board. Pre-requisite courses are listed first. If a course has no pre-requisite it can be placed anywhere. Teachers who teach sequential courses rather than Unit Step courses must also schedule their own classes in the same manner and at the same time. When each teacher has placed his program for the next school year on the schedule board, this constitutes the beginning of the master schedule. This information, when completed, is then computer programmed.

### Role of the Counselor

The role of the counselor has also taken on new dimensions. Most of a counselor's time is now devoted to the Unit Step program. Shortage of time for counseling with individual students is created by the demands placed upon counselors in scheduling and for preparation of the following year's academic program. The counselor/student ratio at Howell is 1:250, which is quite favorable under ordinary circumstances. Notwithstanding this ratio, however, the amount of time that is required for counselors to spend on program administration has necessitated moving into group counseling.

Group counseling has replaced individual counseling for yet another reason besides the shortage of time. Unit Step has made it necessary to see students more often than was necessary in the other program. The Unit Step has forced a situation whereby counselors must see their students four times a year in order to evaluate academic programs and to make schedule changes. These group meetings begin two weeks before the start of each new shift. Four or more students are in each group. Although counselors have become more knowledgeable about counselee academic needs, this allows little time, except on an emergency basis, for dealing with any personal problems of students.

### Student and Principal Roles

Students have become much more aware of course content and selection procedure. Unit Step has made it necessary for them to be more responsible than previously in making choices of courses. According to the counseling department, students also have become aware of being careful to choose courses on the basis of who the teacher is, i.e., is his or her personality one which encourages rapport with students?

In the traditional program, of course, ability for a student to choose either a course or a teacher was very limited. More students are therefore making it a point to know as much about the teacher and the course content as they can before making final program decisions.

The principal's role in the Unit Step program in Howell isn't clearly defined. There are indications, however, of what the future expectations will be.

There has been a gradual withdrawal of those responsibilities that are normally considered to be those belonging to the school principal. There are three indications of this: the existence of a curriculum council where all curriculum changes are presented and finalized; the emergence of a Unit Step supervising committee which will control the direction of the Unit Step program; and the newly created position, coordinator of scheduling, which will be responsible for all aspects of Unit Step programming and scheduling. His remaining role apparently lies in the areas of business manager, attendance, discipline, and organizer of student activities.

### Planned Evaluation

Program improvement is the responsibility of a curriculum council. This group comprises twenty people--7 principals (elementary, junior and senior high school) and 13 teachers who represent the various disciplines, kindergarten through twelfth grade. Representatives are school-wide in order to assure program continuity.

The procedure for change is orderly and methodical. Any recommendation for change in the Unit Step program must be made by a department to the curriculum council. Recommended changes must be signed by all teachers in a department, stating whether or not each favors the proposed change. This is done in order to have a record of commitment and accountability. Courses are then changed, added or dropped, by permission of the council (Appendix E).

In addition to the curriculum council, another supervising body will be set up after the present school year (1969-70). The function of this group will be to deal with the problems engendered by the Unit Step, per se. At the present time one man is supervising and correlating the program in both junior and senior high schools, in addition to other duties. This has been considered necessary because of a general lack of knoweldge and experience in working with the Unit Step program by other administrators in the Howell school system.



The membership in this group will comprise four people --administrative assistant, coordinator of scheduling for junior and senior high schools, senior high school principal, and junior high school principal. These four will be coordinating the departmental program, grades 7-12, and will be responsible for preparing recommended changes for the curriculum council. The administrative assistant will chair the meetings of this new group.

The position of coordinator of scheduling is newly created and will be filled beginning with the 1970-71 school year. The person who performs this function will have the responsibility of scheduling classes for the Unit Step program in both junior and senior high schools. This person will also be responsible for total Unit Step coordination.

Scheduling problems have necessitated improvement in this part of the Unit Step program. A scheduling program is being developed for the Unit Step program which will reduce conflicts to a minimum. This year the number of students with schedule conflicts numbers between 600 and 700 after each new shift is started. This includes the most minor to the most severe conflicts. At the present time the counseling department is responsible for these changes. This has been a burdensome problem, but considerable relief is anticipated by the function of the coordinator of scheduling.

The following time sequence for counseling and scheduling is observed by the Howell staff and students:

November - Counselors, the final two weeks of each shift, meet their counselees to evaluate academic performance

Janaury - Complete course synopses are issued to students (grades 9-11) to take home, discuss with parents, and assist in the choice of courses for the next school year

February - Teachers take class time to discuss course offerings in their specific areas with students

Large group assembly program covering a two day period in the gymnasium. Presented to grades 9-11 at separate assemblies. Classes with low enrollment are especially explained by teachers

February

or

March

- Pre-enrollment time. Student, with their data sheets, attend this activity in the gymnasium. They must obtain the instructor's signature for all desired courses

March - Enrollment figures taken by principal, who figures number of sections per class. Class cards are issued, next, to all teachers

March

or

April

- Teachers take class cards and transfer this information upon the schedule boards for the ensuing school year. This master schedule is then computer programmed.

### Summary

The rationale for the Unit Step program is established at the beginning of this chapter. The primary motivating factor behind this approach is that it enable students to

have a wider range of course offerings than is possible in a traditional program, even one that is ungraded. Other favorable points about the shorter terms are discussed.

The rationale reviewed is from Howell and other school systems having time patterns and curriculum structure similar to Howell's.

The beginnings of Unit Step and how it got started in Howell are focused upon, along with a complete description of the Howell program.

Various roles are described in the school setting. The functions and responsibilities of the teacher, counselor, student and principal are examined.

This chapter concludes with a look at Unit Step coordination and curriculum evaluation techniques.

## CHAPTER III

### THE DESIGN AND METHOD OF STUDY

#### Sample

The population surveyed, 863 students and 38 teachers, came from a total population of 974 students and 46 teachers. Student absenteeism and the fact that some teachers teach only sequential courses allow for these differences. The student body surveyed is from Howell Senior High School, grades 10 to 12.

The following demographic information reveals more about the composition of the two samples:

<u>Teachers</u>	<u>Students</u>
Number male: 23	Number male: 289
Number female: 15	Number female: 391
Average years of teaching: Less than 7	Number in 12th grade: 196
Teachers with B.A.: 24	Number in 11th grade: 215
Teachers with M.A.: 14	Number in 10th grade: 269
Number tenure teachers: 24	Responses to open ended questions: 435
Probationary teachers: 14	
Total school population, K-12: 4,856	
State equalized value: \$68,412,742	
Per pupil expenditure: \$14,088	

The community of Howell has a population over 5,000 and is located between Lansing and Detroit in Livingston County.

### Survey Instruments

The instruments used in this study were constructed specifically for this purpose. They are, for both faculty and students, 90 item questionnaires. The final two statements in both instruments are open-ended. Respondents wishing to express what they like most or least about the Unit Step program could write in spaces provided on the test booklet (Appendices A and B).

Optical scanning sheets were provided to record responses. A four-point scale measured feelings about statements from a strongly agree-agree-disagree-strongly disagree range.

In the instruments it was attempted to use statements which cover as many facets of the school environment as practicable. The statements on each group's questionnaire were numbered correspondingly to facilitate matching of responses.

### Field Test

A field test of the instruments was given on February 12th. A sampling of faculty members and students from Albion Senior High School were administered the questionnaires. The Unit Step program at Albion was begun three years ago by the person who introduced it to the Howell school system.

The sampling used was small. The six students were sophomores in Albion, on their first year of the Unit Step

program. The three teachers were randomly picked from the faculty. After each group took the survey, a critique was received from each. The primary weakness discovered was in instructions to students. The Albion students suggested that a clearer, step-by-step approach just before the survey is administered might disallow some student contamination. Consequently, instructions for taking the survey for both teachers and students were reviewed and reworked. In addition, the introduction of the survey to the teachers and students at Howell was re-evaluated (Appendix F).

### Demographic Variables

Comparisons will be made between the various demographic characteristics on the following bases:

1. The comparison of similarities and differences of total responses between teachers and students;
2. The comparison of similarities and differences within the teacher group and student group; and
3. Comparison of the most favorable and least favorable aspects of the Unit Step program between students and teachers as indicated by the final two open-ended statements included in the instruments in both groups.

For the first two comparisons listed above, the teacher and student instruments were divided into three parts. Individual statements in the instruments were included into one of these parts, listed and defined below.

### Perception of this Program and Others

Perception of parts of this program in relationship to how it affects people other than oneself. For example, students and teachers were asked to respond to statements which required them to give their opinion about how they think other students and teachers are perceiving parts of the Unit Step program.

### Perception of this Program and Self

Perception of parts of this program in relationship to how it directly affects oneself. For example, students and teachers were asked to respond to statements which required them to give their opinion about how they think they personally perceive parts of the Unit Step program.

### Perception of this Program

This involves personal evaluation of parts of the Unit Step program. Both students and teachers were requested to respond to statements which related to their opinion of the Unit Step program, independent of student or teacher considerations.

### Reliability of Instruments

Reliability of this study was determined from analyzing the results of the Hoyt analysis of variance technique on both teacher and student instruments. The higher the degree of correlation in the scores for all categories of teachers and students indicates a high degree of reliability.

### Questions for Study

This study will concern itself with these questions:

1. What is the estimate of difference in perception of the Unit Step program among teachers in the various length-of-service categories?
2. What is the estimate of difference in perception of the Unit Step program between male and female teachers?
3. What is the estimate of difference in perception of the Unit Step program between teachers who have bachelor's degrees to teachers who have master's degrees?
4. What is the estimate of difference in perception of the Unit Step program between tenure and probationary teachers?
5. What is the estimate of difference among the various curricular departments in the perception of the Unit Step program?
6. What is the estimate of difference in the perception of the Unit Step program between 10th and 12th graders?
7. What is the estimate of difference in perception of the Unit Step program between boys and girls in grades 10 to 12?
8. What is the estimate of difference in perception of the Unit Step program among students in grades 10 to 12 in the various academic grade categories?
9. What is the estimate of difference in perception of the Unit Step program between students who will continue their education beyond high school and those who do not plan on continuing their education beyond high school?
10. How do the perceptions of teachers compare with those of students in the following three areas:
  - a. Perception of this program and others
  - b. Perception of this program and self
  - c. Perception of this program



11. What are the most favorable and least favorable aspects of the Unit Step program as perceived by teachers and students?

### The Survey

Both questionnaires were administered at the start of the school day, Friday, February 20, 1970. The four proctors who assisted in passing out and collecting materials on the day of the survey were briefed on their responsibilities on February 13th. The guidance director explained and administered the survey to teachers in a separate classroom after having been briefed himself.

This was considered to be a good time of the school year to administer the survey. Both students and faculty had an opportunity to experience three shifts. Based upon the field test of sophomores who were in their first year of Unit Step, there should have been provided sufficient exposure to the program in Howell to enable both student and faculty respondents to participate with confidence.

### Comparison of Responses

Comparisons of perceptions of the program will be made in three ways: comparison of responses of teachers to teachers, of students to students, and of students to teachers. Data will be furnished from the information regarding individual group differences supplied by the demographic section of the questionnaire Instruction Sheet. Analysis will be made from the following categories of questions:

Questions comparing responses of teachers to teachers.--

1. What is the estimate of difference in perception of the Unit Step program among teachers in the various length-of-service categories?
2. What is the estimate of difference in perception of the Unit Step program between male and female teachers?
3. What is the estimate of difference in perception of the Unit Step program between teachers who have bachelor's degrees to teachers who have master's degrees?
4. What is the estimate of difference in perception of the Unit Step program between tenure and probationary teachers?
5. What is the estimate of difference among the various curricular departments in the perception of the Unit Step program?

Questions comparing responses of students to students.--

1. What is the estimate of difference in the perception of the Unit Step program between 10th and 12 graders?
2. What is the estimate of difference in perception of the Unit Step program between boys and girls in grades 10 to 12?
3. What is the estimate of difference in perception of the Unit Step program among students in grades 10 to 12 in the various academic grade categories?
4. What is the estimate of difference in perception of the Unit Step program between students who will continue their education beyond high school and those who do not plan on continuing their education beyond high school?

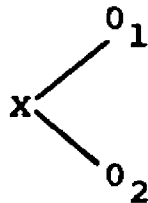
Question comparing responses of students to teachers.--

1. How do the perceptions of teachers compare with those of students in the following three areas:
  - a. Perception of this program and others
  - b. Perception of this program and self
  - c. Perception of this program

In regards to the final question above, reference is made to the definition of these three categories on page 40. There are statements on the questionnaires of both teachers and students which pertain to these three categories. The comparison of perceptions between teachers and students will be answered from the responses to these specific statements.

### Methods of Analysis

In this descriptive study, various statistical methods will be applied to the following approach:



This signifies that the treatment ( $X = \text{Unit Step}$ ) has been applied to both groups studied (teachers and students) and that both teachers ( $0_1$ ) and students ( $0_2$ ) will be given the questionnaire.

Means and variances will be calculated using the  $t$  statistic, and one-way analysis of variance.

The  $t$  statistic will be applied to the questions which require comparisons between only two variables:

1. What is the estimate of difference in perception of the Unit Step program between male and female teachers?
2. What is the estimate of difference in perception of the Unit Step program between teachers who have bachelor's degrees to teachers who have master's degrees?

3. What is the estimate of difference in perception of the Unit Step program between tenure and probationary teachers?
4. What is the estimate of difference in the perception of the Unit Step program between 10th and 12th graders?
5. What is the estimate of difference in perception of the Unit Step program between boys and girls in grades 10 to 12?
6. What is the estimate of difference in perception of the Unit Step program between students who will continue their education beyond high school and those who do not plan on continuing their education beyond high school?
7. How do the perceptions of teachers compare with those of students in the following three areas:
  - a. Perception of this program and others
  - b. Perception of this program and self
  - c. Perception of this program

The one-way analysis of variance statistical method will be applied to those questions which require comparisons between more than two variables:

1. What is the estimate of difference in perception of the Unit Step program among teachers in the various length-of-service categories?
2. What is the estimate of difference among the various curricular departments in the perception of the Unit Step program?
3. What is the estimate of difference in perception of the Unit Step program among students in grades 10 to 12 in the various academic grade categories?

Analysis of contingency tables (ACT) will furnish frequency counts to most of the above questions. This information will present, in graphic form, elaboration of the  $t$  statistic and analysis of variance data.

In the open-ended statements on the questionnaires (89 and 90), content analysis will be used to provide a summary of strong and weak parts of the Unit Step program as perceived by teachers and students.

### Summary

This chapter on design and method of study included a description of the sample and survey instruments, and included the citing of benefits gained from the field test.

Demographic variables were listed and defined in relation to their overall importance in this study. After listing the questions this study will examine, survey comparisons were described.

Finally, the methods of analysis of data were described in detail. The t statistic, one-way analysis of variance, and content analysis will be used in this study. Analysis of contingency tables will be used for frequency counts and percentage spreads.

## CHAPTER IV

### ANALYSIS OF RESULTS

In Chapter IV the analysis of results are reported. All the questions considered in this study were tested with one of the following techniques: the t statistic or a combination of the t statistic and analysis of contingency table (ACT); a combination of one-way analysis of variance and ACT; or, content analysis.

Teacher variables will be analyzed first and will be followed by an analysis of the student variables. This chapter will conclude with a content analysis of the two open-ended questions which were identical on both student and teacher questionnaires.

#### Reliability Scores

The Hoyt analysis of variance technique was applied to obtain reliability scores. Those scores are given in the table below:

	<u>Full Scale</u>	<u>Other</u>	<u>Self</u>	<u>Program</u>
Teachers	0.72	0.55	0.52	0.04
Students	0.80	0.92	0.64	0.38

Before considering the first question, an explanation will be given in regards to the scoring of results.

### Explanation of Scoring

It may be recalled that on the questionnaires given to both faculty and students, there was the possibility of choosing one of four responses to questionnaire statements. These statements were given weights that corresponded with the response number. In other words, if space number 1 was marked on the optical scanning sheet by the test respondent, a weight of 1 was assigned. If choice number 2 was made, a weight of 2 was assigned, and so forth up to number 4.

Keeping the breakdown of the two questionnaires in mind, the scoring assignments can be readily seen. The three parts mentioned on pages 36 and 37 had a minimum and maximum score assigned to them for all the combinations of variables in the questions this study is examining. What then follows is to simply divide each of the score ranges into four equal (or near equal) parts for each of the variable combinations.

To make this point clearer, the part Perception of program for the faculty will be considered. On the teacher questionnaire, there was a total of 18 statements out of 90 that dealt solely with teacher program perception. If all the teachers had marked the first space on the optical scanning sheets for all of the 18 items, this would have meant the faculty was in unanimously strong agreement with that part of the program. Thus, the lowest (or most favorable) score possible would have been 18. Conversely, the highest (or least favorable) score possible would have been 72. The

four categories that are constructed within this range will be used in the analysis of most of the questions that this study is focusing on.

### Variable One

The first question was tested by one-way analysis of variance and analysis contingency table.

#### Question One

1. What is the estimate of difference in perception of the Unit Step program among teachers in the various length of service categories?

Table 1.1 shows there are no significant differences in the means of length of service category among teachers in how each perceives the Unit Step program in relationship to others. Figures for the mean, standard deviation and frequency spread are also presented.

Table 1.2 indicates no significant differences among the means of length of service category among teachers in how each group perceives the Unit Step program in its relationship to themselves. Figures for the mean, standard deviation and frequency spread are also presented.

Table 1.3 indicates no significant differences among the means of length of service category among teachers in how each group perceives the Unit Step program, per se. Figures for the mean, standard deviation and frequency spread are also presented.



TABLE 1.1.--Dependent Variable--Perception of This Program and Others. Category Variable--Length of Service.

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Length of service	5	142.8761	0.9665	0.453
Error	32	147.8343		

No. of Years Experience	Frequency	Mean	Standard Deviation
0-3	14	91.3571	9.2454
4-7	9	92.4444	15.1088
8-11	7	93.2857	11.9403
12-15	2	92.5000	7.7781
16-20	3	77.6666	12.2202
21 or more	3	84.3333	17.0098

Frequency Count for Table 1.1

Length of Service in Years	Choice Categories				
	1	2	3	4	
0-3	0	6	8	0	Choice Category Definitions: 1-Strongly agree 2-Tend to agree 3-Tend to disagree 4-Strongly disagree
4-7	0	4	5	0	
8-11	0	2	5	0	
12-15	0	1	1	0	
16-20	0	2	1	0	
21 or more	0	1	2	0	

TABLE 1.2.--Dependent Variable--Perception of This Program and Self. Category Variable--Length of Service.

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Length of service	5	98.8761	0.7535	0.590
Error	32	131.2093		

No. of Years Experience	Frequency	Mean	Standard Deviation
0-3	14	77.6428	8.7231
4-7	9	81.8888	13.9234
8-11	7	80.2857	11.4559
12-15	2	83.5000	10.6066
16-20	3	68.6666	12.7410
21 or more	3	84.3333	17.0098

Frequency Count for Table 1.2

Length of Service in Years	Choice Categories				
	1	2	3	4	
0-3	0	11	3	0	Choice Category Definitions:  1-Strongly agree 2-Tend to agree 3-Tend to disagree 4-Strongly disagree
4-7	1	4	4	0	
8-11	0	4	3	0	
12-15	0	1	1	0	
16-20	1	2	0	0	
21 or more	0	2	1	0	

TABLE 1.3.--Dependent Variable--Perception of This Program.  
Category Variable--Length of Service.

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Length of Service	5	46.7709	1.0542	0.404
Error	32	44.3630		

No. of Years Experience	Frequency	Mean	Standard Deviation
0-3	14	42.0714	4.4456
4-7	9	45.0000	8.4113
8-11	7	42.1428	4.2983
12-15	2	46.5000	6.3639
16-20	3	35.6666	10.0166
21 or more	3	41.6666	11.0604

Frequency Count for Table 1.3

Length of Service in Years	Choice Categories				
	1	2	3	4	
0-3	0	9	5	0	Choice Category Definitions:  1-Strongly agree 2-Tend to agree 3-Tend to disagree 4-Strongly disagree
4-7	0	4	5	0	
8-11	0	5	2	0	
12-15	0	1	1	1	
16-20	1	1	1	0	
21 or more	1	1	1	0	

### Variable Two

The second question was tested by the t statistic and analysis contingency table.

#### Question Two

2. What is the estimate of difference in perception of the Unit Step program between male and female teachers?

Table 2.1 indicates there is a significant difference between the means of male and female teachers in how each group perceives the Unit Step program and its relationship to others. Figures for the mean, standard deviation and frequency spread are also presented.

Table 2.2 indicates no significant difference between the means of male and female teachers in how each group perceives the Unit Step program and its relationship to themselves. Figures for the mean, standard deviation and frequency spread are also presented.

Table 2.3 indicates there is a significant difference between the means of male and female teachers in how each group perceives the Unit Step program, per se. Figures are also presented for the mean, standard deviation, and frequency spread.

### Variable Three

The third question was tested by the t statistic and analysis of contingency table.

TABLE 2.1.--Dependent Variable--Perception of This Program and Others. Category Variable--Sex.

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Sex	1	637.5195	4.7738	0.035
Error	36	133.5433		

Sex	Frequency	Mean	Standard Deviation
Male	23	87.0869	13.9019
Female	15	95.4666	6.3004

Frequency Count for Table 2.1

Sex	Choice Categories			
	1	2	3	4
Male	0	14	9	0
Female	0	2	13	0

Choice Category  
Definitions:  
1-Strongly agree  
2-Tend to agree  
3-Tend to disagree  
4-Strongly disagree

TABLE 2.2.--Dependent Variable--Perception of This Program and Self. Category Variable--Sex.

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Sex	1	242.4934	1.9614	0.170
Error	36	126.6273		

Sex	Frequency	Mean	Standard Deviation
Male	23	76.5652	11.9233
Female	15	81.7333	9.7208

Frequency Count for Table 2.2

Sex	Choice Categories				
	1	2	3	4	
Male	2	15	6	0	Choice Category Definitions: 1-Strongly agree 2-Tend to agree 3-Tend to disagree 4-Strongly disagree
Female	0	9	6	0	

TABLE 2.3.--Dependent Variable--Perception of This Program.  
Category Variable--Sex.

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Sex	1	263.3229	6.8191	0.013
Error	36	38.6152		

Sex	Frequency	Mean	Standard Deviation
Male	23	40.3478	6.5754
Female	15	45.7333	5.5993

Frequency Count for Table 2.3

Sex	Choice Categories			
	1	2	3	4
Male	2	15	6	0
Female	1	6	9	0

Choice Category  
Definitions:  
1-Strongly agree  
2-Tend to agree  
3-Tend to disagree  
4-Strongly disagree

### Question Three

3. What is the estimate of difference in perception of the Unit Step program between teachers who have bachelor's degrees to teachers who have master's degrees?

Table 3.1 indicates no significant difference between the means of teachers who have either bachelor's or master's degrees and how each group perceives the Unit Step program and its relationship to others. Figures for the mean, standard deviation and frequency spread are also presented.

Table 3.2 indicates no significant difference between the means of teachers who have either bachelor's or master's degrees and how each group perceives the Unit Step program and its relationship to themselves. Figures are also presented for the mean, standard deviation, and frequency spread.

Table 3.3 indicates no significant difference between the means of teachers who have either bachelor's or master's degrees and how each group perceives the Unit Step program, per se. Figures for the mean, standard deviation, and frequency spread are also presented.

### Variable Four

The fourth question was tested by the t statistic and analysis of contingency table.

### Question Four

4. What is the estimate of difference in perception of the Unit Step program between tenure and probationary teachers?



TABLE 3.1.--Dependent Variable--Perception of This Program and Others. Category Variable--Degree.

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Degree	1	470.8884	3.4080	0.073
Error	36	138.1719		

Degree	Frequency	Mean	Standard Deviation
Bachelor's	24	93.0833	11.6392
Master's	14	85.7857	11.9561

Frequency Count for Table 3.1

Degree	Choice Categories				
	1	2	3	4	
Bachelor's	0	7	17	0	Choice Category Definitions: 1-Strongly agree 2-Tend to agree 3-Tend to disagree 4-Strongly disagree
Master's	0	9	5	0	

TABLE 3.2.--Dependent Variable--Perception of This Program and Self. Category Variable--Degree.

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Degree	1	158.8170	1.2609	0.269
Error	36	125.9517		

Degree	Frequency	Mean	Standard Deviation
Bachelor's	24	80.1666	11.6307
Master's	14	75.9285	10.4621

Frequency Count for Table 3.2

Degree	Choice Categories				
	1	2	3	4	
Bachelor's	2	14	8	0	Choice Category Definitions: 1-Strongly agree 2-Tend to agree 3-Tend to disagree 4-Strongly disagree
Master's	0	10	4	0	

TABLE 3.3.--Dependent Variable--Perception of This Program.  
Category Variable--Degree.

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Degree	1	80.2117	1.8354	0.184
Error	36	43.7017		

Degree	Frequency	Mean	Standard Deviation
Bachelor's	24	43.5833	6.4195
Master's	14	40.5714	6.9361

Frequency Count for Table 3.3

Degree	Choice Categories				
	1	2	3	4	
Bachelor's	1	11	12	0	Choice Category Definitions: 1-Strongly agree 2-Tend to agree 3-Tend to disagree 4-Strongly disagree
Master's	1	10	3	0	

Table 4.1 indicates no significant difference between the means of teachers who have either tenure or probationary status and how each group perceives the Unit Step program and its relationship to others. Figures for the mean, standard deviation, and frequency spread are also presented.

Table 4.2 indicates the presence of a significant difference between the means of teachers who have either tenure or probationary status and how each group perceives the Unit Step program and its relationship to themselves. Figures for the mean, standard deviation, and frequency spread are also given.

Table 4.3 indicates no significant difference between the means of teachers who have either tenure or probationary status and how each group perceives the Unit Step program, per se. Figures for the mean, standard deviation, and frequency spread are also presented.

#### Variable Five

The fifth question was tested by one-way analysis of variance and analysis of contingency table.

#### Question Five

5. What is the estimate of difference among the various curricular departments in the perception of the Unit Step program?

Table 5.1 indicates no significant differences among the means of teachers in various departments and how each department perceives the Unit Step program and its relationship to others

TABLE 4.1.--Dependent Variable--Perception of This Program and Others. Category Variable--Tenure/Probationary (T/P).

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
T/P	1	167.8646	1.1451	0.292
Error	36	146.5892		

T/P	Frequency	Mean	Standard Deviation
Tenure	24	92.0000	11.6283
Probationary	14	87.6428	12.9115

Frequency Count for Table 4.1

T/P	Choice Categories				
	1	2	3	4	
Tenure	0	9	15	0	Choice Category Definitions: 1-Strongly agree 2-Tend to agree 3-Tend to disagree 4-Strongly disagree
Probationary	0	7	7	0	

TABLE 4.2.--Dependent Variable--Perception of This Program and Self. Category Variable--Tenure/Probationary (T/P).

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
T/P	1	499.7396	4.2903	0.046
Error	36	116.4816		

T/P	Frequency	Mean	Standard Deviation
Tenure	24	81.3750	10.9059
Probationary	14	73.8571	10.5892

Frequency Count for Table 4.2

T/P	Choice Categories				
	1	2	3	4	
Tenure	1	13	10	0	Choice Category Definitions: 1-Strongly agree 2-Tend to agree 3-Tend to disagree 4-Strongly disagree
Probationary	1	11	2	0	

TABLE 4.3.--Dependent Variable--Perception of This Program.  
Category Variable--Tenure/Probationary (T/P).

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
T/P	1	99.3010	2.3001	0.138
Error	36	43.1714		

T/P	Frequency	Mean	Standard Deviation
Tenure	24	43.7083	7.2440
Probationary	14	40.3571	5.1680

Frequency Count for Table 4.3

T/P	Choice Category			
	1	2	3	4
Tenure	1	12	11	0
Probationary	1	19	4	0

Choice Category  
Definitions:  
1-Strongly agree  
2-Tend to agree  
3-Tend to disagree  
4-Strongly disagree

TABLE 5.1.--Dependent Variable--Perception of This Program and Others. Category Variable--Department.

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Department	8	187.3777	1.3770	0.248
Error	29	136.0709		

Department	Frequency	Mean	Standard Deviation
Art	2	104.5000	16.2634
Business	5	97.6000	7.0922
English	7	85.1428	13.8495
Home Economics	1	91.0000	0.0000
Math	6	97.5000	6.1756
Physical Education	3	85.0000	2.6457
Science	5	87.0000	17.3060
Shop	3	89.3333	9.5043
Social Studies	6	84.6666	11.9275

Frequency Count for Table 5.1

Department	Choice Category				
	1	2	3	4	
Art	0	0	2	0	Choice Category Definitions: 1-Strongly agree 2-Tend to agree 3-Tend to disagree 4-Strongly disagree
Business	0	0	5	0	
English	0	3	4	0	
Home Econ.	0	0	1	0	
Math	0	1	5	0	
Physical Ed.	0	3	0	0	
Science	0	2	3	0	
Shop	0	2	1	0	
Social Stu.	0	5	1	0	



Figures for the mean, standard deviation, and frequency spread are also presented.

Table 5.2 indicates no significant differences among the means of teachers in various departments and how each department perceives the Unit Step program and its relationship to themselves. Figures for the mean, standard deviation, and frequency spread are also given.

Table 5.3 indicates no significant differences among the means of teachers in various departments and how each department perceives the Unit Step program, per se. Figures for the mean, standard deviation, and frequency spread are also given.

### Variable Six

The sixth question was tested by the t statistic and analysis of contingency table.

### Question Six

6. What is the estimate of difference in the perception of the Unit Step program between 10th and 12 graders?

Table 6.1 indicates there is no significant difference between the means of 10th grade and 12th grade students in how each grade perceives the Unit Step program and its relationship to others. Figures for the mean, standard deviation, and frequency spread are also presented.

Table 6.2 indicates there is no significant difference between the means of 10th grade and 12 grade students in how each grade perceives the Unit Step program and its relationship to themselves. Figures for the mean, standard deviation and frequency spread are also presented.

TABLE 5.2.--Dependent Variable--Perception of This Program and Self. Category Variable--Department.

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Department	8	83.6539	0.6029	0.768
Error	29	138.7533		

Department	Frequency	Mean	Standard Deviation
Art	2	87.5000	10.6066
Business	5	83.2000	14.1315
English	7	78.5714	11.0281
Home Economics	1	77.0000	0.0000
Math	6	83.1666	11.7884
Physical Education	3	76.0000	1.0000
Science	5	75.0000	12.3490
Shop	3	75.6666	12.4230
Social Studies	6	73.3333	12.3881

Frequency Count for Table 5.2

Department	Choice Category				
	1	2	3	4	
Art	0	1	1	0	Choice Category Definitions: 1-Strongly agree 2-Tend to agree 3-Tend to disagree 4-Strongly disagree
Business	0	3	2	0	
English	0	4	3	0	
Home Econ.	0	1	0	0	
Math	0	3	3	0	
Physical Ed.	0	3	0	0	
Science	1	3	1	0	
Shop	0	2	1	0	
Social Stu.	1	4	1	0	

TABLE 5.3.--Dependent Variable--Perception of This Program.  
Category Variable--Department

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Department	8	36.5681	0.7792	0.624
Error	29	46.9285		

Department	Frequency	Mean	Standard Deviation
Art	2	47.5000	6.3639
Business	5	45.2000	3.1144
English	7	42.2857	8.9389
Home Economics	1	46.0000	0.0000
Math	6	45.1666	7.2778
Physical Education	3	41.3333	3.0550
Science	5	41.4000	5.0299
Shop	3	40.6666	8.3266
Social Studies	6	37.8333	7.4677

Frequency Count for Table 5.3

Department	Choice Category				
	1	2	3	4	
Art	0	1	1	0	Choice Category Definitions: 1-Strongly agree 2-Tend to agree 3-Tend to disagree 4-Strongly disagree
Business	0	2	3	0	
English	1	3	3	0	
Home Econ.	0	0	1	0	
Math	0	3	3	0	
Physical Ed.	0	3	0	0	
Science	0	3	2	0	
Shop	0	2	1	0	
Social Stu.	1	4	1	0	

TABLE 6.1.--Dependent Variable--Perception of This Program and Others. Category Variable--10th and 12th Grade Students.

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Grade	1	209.2687	1.67062	0.194
Error	463	125.2640		

Grade	Frequency	Mean	Standard Deviation
10th	269	78.7435	11.7501
12th	196	80.1020	10.3764

Frequency Percentages for Table 6.1

Grade	Choice Categories				
	1	2	3	4	
10th	4.08	72.86	21.93	1.11	Choice Category Definitions: 1-Strongly agree 2-Tend to agree 3-Tend to disagree 4-Strongly disagree
12th	3.57	68.87	26.02	1.53	

TABLE 6.2.--Dependent Variable--Perception of This Program and Self. Category Variable--10th and 12th Graders.

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Grade	1	29.2894	0.2256	0.640
Error	463	129.8370		

Grade	Frequency	Mean	Standard Deviation
10th	269	82.8029	11.7658
12th	196	83.3112	10.8637

Frequency percentages for Table 6.2

Grade	Choice Categories			
	1	2	3	4

10th	3.34	63.19	32.71	.74
12th	4.08	61.22	34.18	.51

Choice Category  
Definitions:

1-Strongly agree

2-Tend to agree

3-Tend to disagree

4-Strongly disagree

Table 6.3 indicates there is no significant difference between the means of 10th grade and 12 grade students in how each grade perceives the Unit Step program, per se. Figures for the mean, standard deviation, and frequency spread are also presented.

### Variable Seven

The seventh question was tested by the t statistic and analysis of contingency table.

#### Question Seven

7. What is the estimate of difference in perception of the Unit Step program between boys and girls in grades 10 to 12?

Table 7.1 indicates there is a significant difference between the means of male and female students in how each perceives the Unit Step program in relationship to others. Figures for the mean, standard deviation, and frequency spread are also presented.

Table 7.2 indicates there is a significant difference between the means of male and female students in how each perceives the Unit Step program and its relationship to themselves. Figures for the mean, standard deviation, and frequency spread are also presented.

Table 7.3 indicates the presence of a significant difference between the means of male and female students in how each perceives the Unit Step program, per se. Figures for the mean, standard deviation, and frequency spread are also presented.

TABLE 6.3.--Dependent Variable--Perception of This Program.  
Category Variable--10th and 12th Graders.

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Grade	1	16.2112	0.4619	0.504
Error	463	35.0927		

Grade	Frequency	Mean	Standard Deviation
10th	269	39.1933	6.0962
12th	196	39.5714	5.6785

Frequency percentages for Table 6.3

Grade	Choice categories				
	1	2	3	4	
10th	15.24	76.20	8.55	0.00	Choice Category Definitions: 1-Strongly agree 2-Tend to agree 3-Tend to disagree 4-Strongly disagree
12th	12.75	77.55	9.96	0.00	

TABLE 7.1.--Dependent Variable--Perception of This Program and Others. Category Variable--Boys and Girls, Grades 10 to 12.

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Sex	1	1106.2227	8.7710	0.003
Error	678	126.1223		

Sex	Frequency	Mean	Standard Deviation
Male	289	80.7923	11.6963
Female	391	78.2122	10.87.35

Frequency Percentages for Table 7.1

Sex	Choice Categories			
	1	2	3	4
Male	2.76	69.89	24.56	2.76
Female	5.11	72.37	22.25	0.25

Choice Category  
Definitions:

1-Strongly agree

2-Tend to agree

3-Tend to disagree

4-Strongly disagree



TABLE 7.2.--Dependent Variable--Perception of This Program and Self. Category Variable--Boys and Girls, Grades 10 to 12.

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Sex	1	580.0795	4.4302	0.034
Error	678	130.9378		

Sex	Frequency	Mean	Standard Deviation
Male	289	84.0346	11.3776
Female	391	82.1662	11.4907

Frequency Percentages for Table 7.2

Sex	Choice Categories			
	1	2	3	4
Male	2.42	59.16	37.71	0.69
Female	3.83	65.47	30.17	0.51

Choice Category  
Definitions:

- 1-Strongly agree
- 2-Tend to agree
- 3-Tend to disagree
- 4-Strongly disagree

TABLE 7.3.--Dependent Variable--Perception of This Program.  
Category Variable--Boys and Girls, Grades 10 to 12.

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Sex	1	216.3271	5.997	0.014
Error	678	36.0680		

Sex	Frequency	Mean	Standard Deviation
Male	289	39.9031	6.0802
Female	391	38.7621	5.9499

Frequency percentages for Table 7.3

Sex	Choice Categories				
	1	2	3	4	
Male	12.11	77.85	10.03	0.00	Choice Category Definitions: 1-Strongly agree 2-Tend to agree 3-Tend to disagree 4-Strongly disagree
Female	17.64	74.16	8.18	0.00	

### Variable Eight

The eighth question was tested by one-way analysis of variance and analysis of contingency table.

#### Question Eight

8. What is the estimate of difference in perception of the Unit Step program among students in grades 10 to 12 in the various academic grade categories?

Table 8.1 indicates no significant differences among the means of grade point average groups in how each perceives the Unit Step program in relationship to others. Figures for the mean, standard deviation, and frequency spread are also presented.

Table 8.2 indicates no significant differences among the means of grade point average groups in how each perceives the Unit Step program in relationship to themselves. Figures for the mean, standard deviation, and frequency spread are also presented.

Table 8.3 indicates no significant differences among the means of grade point average groups in how each perceives the Unit Step program, per se. Figures for the mean, standard deviation, and frequency spread are also presented.

### Variable Nine

The ninth question was tested by the t statistic and analysis of contingency table.

TABLE 8.1.--Dependent Variable--Perception of This Program and Others. Category Variable--Grade Point Average (GPA).

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
GPA	3	103.1270	0.8077	0.493
Error	676	127.6742		

GPA	Frequency	Mean	Standard Deviation
D+ or below	30	80.0000	14.3982
C- to C+	259	80.0386	11.4661
B- to B+	339	78.6401	11.0499
A- or above	52	79.6346	10.0059

Frequency Percentages for Table 8.1

GPA	Choice Categories				
	1	2	3	4	
D+ or below	10.00	46.66	43.33	0.00	Choice Category Definitions: 1-Strongly agree 2-Tend to agree 3-Tend to disagree 4-Strongly disagree
C- to C+	3.47	69.88	24.71	1.93	
B- to B+	4.42	74.04	20.64	0.88	
A- or above	1.92	75.00	21.15	1.92	

TABLE 8.2.--Dependent Variable--Perception of This Program and Self. Category Variable--Grade Point Average (GPA).

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
GPA	3	252.4724	1.9263	0.122
Error	676	131.0628		

GPA	Frequency	Mean	Standard Deviation
D+ or below	30	81.0666	13.9405
C- to C+	259	84.2277	11.2159
B- to B+	339	82.1327	11.4815
A- or above	52	83.1346	10.8012

Frequency Percentages for Table 8.2

GPA	Choice Categories				
	1	2	3	4	
D+ or below	10.00	53.33	36.66	0.00	Choice Category Definitions: 1-Strongly agree 2-Tend to agree 3-Tend to disagree 4-Strongly disagree
C- to C+	2.70	60.23	36.67	0.38	
B- to B+	2.94	66.07	30.08	0.88	
A- or above	3.84	59.61	36.53	0.00	

TABLE 8.3.--Dependent Variable--Perception of This Program.  
Category Variable--Grade Point Average (GPA).

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
GPA	3	43.4328	1.1964	0.310
Error	676	36.3020		

GPA	Frequency	Mean	Standard Deviation
D+ or below	30	39.9333	6.6640
C- to C+	259	39.3243	6.1822
B- to B+	339	38.9351	6.0109
A- or above	52	40.5000	4.8080

Frequency Percentages for Table 8.3

GPA	Choice Categories				
	1	2	3	4	
D+ or below	10.00	83.33	6.66	0.00	Choice Category Definitions: 1-Strongly agree 2-Tend to agree 3-Tend to disagree 4-Strongly disagree
C- to C+	16.60	74.90	8.49	0.00	
B- to B+	16.22	74.33	9.43	0.00	
A- or above	5.76	84.61	9.61	0.00	

### Question Nine

9. What is the estimate of difference in perception of the Unit Step program between students who will continue their education beyond high school and those who do not plan on continuing their education beyond high school?

Table 9.1 indicates the presence of a significant difference between the means of those who will or won't continue their education and how each group perceives the Unit Step program in its relationship to others. Figures for the mean, standard deviation and frequency spread are also presented.

Table 9.2 indicates the presence of a significant difference between the means of those who will or won't continue their education and how each group perceives the Unit Step program and themselves. Figures for the mean, standard deviation and frequency spread are also presented.

Table 9.3 indicates no significant difference between the means of those who will or won't continue their education and how each group perceives the Unit Step program, per se. Figures for the mean, standard deviation and frequency spread are also presented.

### Variable Ten

The tenth question was tested by the t statistic.

### Question Ten

10. How do the perceptions of teachers compare with those of students in the following three areas:
- a. Perception of this program and others?
  - b. Perception of this program and self?
  - c. Perception of this program?

TABLE 9.1.--Dependent Variable--Perception of This Program and Others. Category Variable--Continuing Education Beyond High School.

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Continue ed.	1	855.9497	6.7668	0.009
Error	678	126.4914		

Continue Ed.	Frequency	Mean	Standard Deviation
Will	522	79.6915	11.0134
Won't	158	81.3481	11.9888

Frequency Percentages for Table 9.1

Continue Ed.	Choice Categories				
	1	2	3	4	
Will	4.21	72.60	22.03	1.14	Choice Category Definitions: 1-Strongly agree 2-Tend to agree 3-Tend to disagree 4-Strongly disagree
Won't	3.79	67.08	27.21	1.89	



TABLE 9.2.--Dependent Variable--Perception of This Program and Self. Category Variable--Continuing Education Beyond High School.

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Continue ed.	1	652.2874	4.9857	0.024
Error	678	130.8313		

Continue Ed.	Frequency	Mean	Standard Deviation
Will	522	82.4214	11.3478
Won't	158	84.7405	11.7327

Frequency Percentages for Table 9.2

Continue Ed.	Choice Categories				
	1	2	3	4	
Will	3.44	63.60	32.56	0.38	Choice Category Definitions: 1-Strongly agree 2-Tend to agree 3-Tend to disagree 4-Strongly disagree
Won't	2.53	60.12	36.07	1.26	

TABLE 9.3.--Dependent Variable--Perception of This Program.  
Category Variable--Continuing Education Beyond High School.

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Continue Ed.	1	38.0845	1.0482	0.307
Error	678	36.3309		

Continue Ed.	Frequency	Mean	Standard Deviation
Will	522	39.1168	5.9279
Won't	158	39.6772	6.3157

Frequency Percentages for Table 9.3

Continue Ed.	Choice Categories				
	1	2	3	4	
Will	16.28	75.28	8.42	0.00	Choice Category Definitions: 1-Strongly agree 2-Tend to agree 3-Tend to disagree 4-Strongly disagree
Won't	12.02	77.21	10.75	0.00	

Table 10.1 indicates there is a significant difference between the means of students and teachers in how each group perceives the Unit Step program and its relationship to others. Other figures included are those for the mean and standard deviation.

Table 10.2 indicates there is a significant difference between the means of students and teachers in how each group perceives the Unit Step program and its relationship to themselves. Other figures included are those for the mean and standard deviation.

Table 10.3 indicates the presence of a significant difference between the means of students and teachers in how each group perceives the Unit Step program, per se. Figures for the mean and standard deviation are also included.

#### Variable Eleven

The eleventh question was tested by content analysis.

11. What are the most favorable and least favorable aspects of the Unit Step program as perceived by teachers and students?

#### Faculty Favorable Comments

In expressing what they liked most about the Unit Step program, most teachers were apparently more concerned with the needs of students being met rather than their own. Many remarked that Unit Step has provided a greater opportunity for students to choose courses that better meet their special needs or interests because of the greater variety offered.

TABLE 10.1.--Dependent Variable--Perception of This Program and Others. Category Variable--Students and Teachers (Population).

Source of Variance	Degrees of Freedom	Mean Square	F Ratio	Probability
Population	1	4422.9397	34.3987	0.0005
Error	716	128.5785		

Population	Frequency	Mean	Standard Deviation
Students	680	79.3088	11.2945
Teachers	38	90.3947	12.1311

TABLE 10.2.--Dependent Variable--Perception of This Program and Self. Category Variable--Students and Teachers (Population)

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Population	1	682.5752	5.1964	0.002
Error	716	131.3533		

Population	Frequency	Mean	Standard Deviation
Students	680	82.9603	11.4716
Teachers	38	78.6052	11.2623

TABLE 10.3.--Dependent Variable--Perception of This Program.  
Category Variable--Students and Teachers (Population).

Source of Variation	Degrees of Freedom	Mean Square	F Ratio	Probability
Population	1	374.6840	10.1912	0.002
Error	716	36.7653		

Population	Frequency	Mean	Standard Deviation
Students	680	39.2470	6.0277
Teachers	38	42.4736	6.6849

Teachers generally recognize that the wider selection of courses makes it possible for students to experiemnt with increased exposure to both courses and teachers; in the traditional program the ability to schedule in this manner was extremely limited. The faculty also feels the wider variety of courses better meets the needs of all students with varying abilities, including the slow and exceptionally able.

Over half the teachers commented on the presence of a high degree of student and teacher interest in this program. Several reasons are attributed to this. It was pointed out that full year courses can be as boring for the teacher as they are for the student, but that shorter terms made this less possible. It was suggested that student interest might have been enhanced somewhat because of better classroom discipline resulting, in part, from the heterogeneously mixed, nongraded classes. Teacher interest, it was felt, is increased in part due to the challenge of preparing new course content and the tendency to do a more thorough job in planning daily and weekly lessons. Last year's lesson plans that were used in the traditional program are of no use in Unit Step. A fresh approach toward planning has encouraged teachers to examine traditional methods of course preparation and classroom teaching.

Interest of teachers is enhanced in another way. Teacher now have a greater opportunity to teach in areas within their fields of preparation. One reason for this is that the courses in Unit Step have been planned by those who teach them.

Unit Step also stimulates more interest among teachers because it provides an opportunity to meet more people. As indicated by the responses to the open-ended statements, students like this aspect of the program as much as teachers.

The faculty recognized failures in class work and difficulties experienced in teacher/student personality adjustment to be less punishing in Unit Step than was true in the traditional program. One teacher elaborated by saying these are less punishing in the sense that the eight week period of time helps establish a psychological frame of mind whereby one can live with an uncomfortable situation if there is at least hope that things can be improved upon in the next shift. When a student has an instructor and a course for a full year, neither of which he particularly cares for and were not, perhaps, of his choosing, his frame of mind toward studying and personal adjustment may be negative.

Some teachers feel this program is an attempt to modernize and improve education in Howell. As reported by one, there is nothing in the history of educational procedure that should be considered sacrosanct. Another remarked there are those innumerable sacred cows in education that educators and lay people alike refuse to sacrifice because of tradition and/or sentimentality. The faculty generally felt that Unit Step appears to more practically meet modern needs of students than does a traditional program because of the increased variety of courses and an in-depth approach to specific areas



of interest. There is hope that Unit Step is just the beginning of exploration into new and better ways of educating youngsters.

### Teacher Objections

Teachers' objections to the Unit Step program were more varied and in greater volume than were their favorable comments. Complaints centered around four primary areas: student reaction to the program as teachers see this, classroom preparation, scheduling of classes, and administrative support.

Some feel that the program makes no provision for the immature student. This immaturity suggests that there will not be as high a capability, as will be found with more mature students, to make suitable program choices for himself. This student needs to be more quickly identified than is presently the case; guidance should be structured in such a manner that it will be flexible enough to deal with these specific needs. If the immature student doesn't receive proper guidance, he may be tempted to enroll in courses that require the least amount of academic effort on his part.

The problem created by the student who decides to quit working in a course needs to be explored, some felt. When a student decides to take a failing grade for a course after being in it for only two or three weeks, the remainder of his time in class is virtually wasted. This attitude, it is reported, is hardly conducive to preparation for life after the high school experience is completed. Some suggest that shifts

be extended from eight to ten weeks to better cope with this and other problems. Perhaps, as suggested, this would provide a better chance to know and understand a student and his individual problems by infusing personableness into an otherwise impersonal structure.

Academic preparation for teachers in daily lessons has apparently increased with the introduction of Unit Step. Some described this as a "burden", especially for those areas of instruction that require the most paperwork assignments from students. Some groups of students may also require more preparation than do others. For example, in the opinion expressed by one teacher, classes that are predominantly composed of low achievers require more creative planning if the classes are to be "alive and interesting." Another teacher felt that this general excess work load justifies extra compensation.

The need to prepare four or five daily preparations comes in for criticism from many staff members. Some feel this could be alleviated somewhat if the number of course offerings were compatible with the size of the staff. It is suggested that the program may have grown too fast because the size of the teaching staff hasn't made a gain commensurate with that of the number of course offerings. This, of course, necessitates more daily preparations per teacher. One teacher remarked that exclusive of his first year of teaching, he's never put as much extra time on preparation of lessons as was required this year.

The remark of one teacher in regards to scheduling of classes for students was put succinctly and perhaps best expresses the feelings of his colleagues. "Scheduling," he said, "is for the birds." There are several reasons for this prevailing attitude.

What is generally thought to have been the result of lack of adequate program preparation and sufficient organization is attributed to this attitude toward scheduling. Many teachers feel that counselors are required to spend too much time in the scheduling phase of the program and not enough in the area of counseling. This results, in the view of the faculty, in students not being sufficiently informed about courses before pre-enrollment day comes around.

Other scheduling criticisms are:

1. Counselors need more time to familiarize themselves with all aspects of Unit Step and should concentrate on direct assistance to students. They should not, as suggested above, have primary responsibility for scheduling of students into classes;

2. There are too many conflicts between Unit Step and year-round courses. Because of this students may find themselves having to make some very difficult decisions that shouldn't be required of them;

3. There should be more courses to facilitate better scheduling;

4. Too many students can't get the classes they want and are too often put into sections just because they are available;

5. There's a tendency on the part of the counselors to make too many choice-of-course decisions for the students; and

6. The upheaval every eight weeks created by the termination of one shift and the start of another is upsetting to students.

Many teachers expressed the opinion that the high school administrative staff tends to remain aloof from the Unit Step program. It was generally felt the Unit Step program would stand a better chance of succeeding if the administration was more directly involved in the problems created by the program.

Teachers seemed to be either directly or indirectly implying that the program needs more intensive leadership on this level. Apparently a majority on the teaching staff felt there is a lack of enthusiasm and/or approval for the Unit Step program from building administrator's. Some teachers feel the administrators are more or less separate from their group in trying to make the program succeed.

### Student Attitudes

Student responses favoring the Unit Step program can be classified into one general category. For the most part, this program has made school more interesting than did the traditional program. This classification can in turn be subclassified into two additional areas--variety of courses and

student/teacher relations. Negative objections to the Unit Step program follow the pattern set by the teachers. That is, these responses were more varied and almost twice that of favorable comments.

The greatest number of student responses favoring the program focuses on variety of courses. For the most part, students regard this to be a boon for career preparation. They appreciate not having to sit through a limited number of courses for an entire year where only a small percentage of pertinent or interesting material may be presented. Unit Step categorizes various interest levels as evidenced by the course titles, providing a variety which makes it possible that there is even a choice of courses in the required areas is appreciated. It is also recognized that the increased variety of courses encourages a degree of student independence in selection of courses.

This program is interpreted by many students as almost a means of escape. Several cited approval of the short, eight week shifts primarily because they feel there is a less strained relation between them and the teacher whom they may dislike, for whatever reason. This was stated emphatically in several instances. But many students are also appreciative of the fact that they now have an opportunity to be exposed to more instructors. Some commented that teachers appear to communicate with them more like friends than as teachers. This is an interesting distinction.

Several responses were made which reflected negatively upon the eight week period of time. Some felt the shifts to be too short. No sooner does one get into a class and begin to understand what is being taught when it's time to move on to another shift. As one consequence of this, ideas of a broad and general nature are not given enough emphasis. Students recognize that some subjects require more time to be examined in depth and more thoroughly. More time would also allow greater opportunity to get to know teachers and students better.

But the eight week shift is objected to for another and perhaps more pertinent reason by others. It appears to some students that there are some teachers who haven't yet made an adjustment away from the traditional approach. This is evidenced by several factors. For one thing, homework is being given in greater amounts. In addition, work in the classroom or assignments outside of class aren't spread out evenly over the eight week period. In some classes, objectives are reached too early in the shift and as a consequence there's nothing to do during the remaining time. At other times, work that should have been given earlier in the shift is crammed into the final two weeks, causing an increase in homework assignments during preparation for examinations in this and other classes. Some students interpret these factors as a lack of interest on the part of some teachers to do their best to see that the Unit Step program succeeds.

Many students have the impression there aren't enough teachers and/or courses for the program. This is perhaps due in part to a general state of confusion surrounding the program from a student perspective. The following student opinions contribute to this view: there are insufficient directions given out between shift changes to tell students what is expected of them; some classes as taught aren't always what the synopses lead one to believe is to be the course content; the student body wasn't sufficiently prepared for this program; there seems to be a lack of proper organization on the part of the those administering the program; in several instances teachers have not received their teaching materials on time; and, the end and start of each new shift are viewed as pandemonium because of the lack of proper guidance on course selection and the many problems created by class scheduling.

The scheduling problems are many and varied. There are several who state they couldn't get the classes for which they pre-enrolled. Sections of some courses are too quickly filled and too often study hall is the only alternative. Finally, the number of class conflicts in the schedules are apparently numerous at the start of each new shift.

Additional comments that were made by students are:

1. Students appreciate the opportunity to meet many more of their peers. The development of friendships is thought to be an important asset of this program.

2. The opportunity to complete course requirements leading to graduation earlier than usual gives some seniors the opportunity to leave school to enter college or get a job before the end of a normal school year--this is also considered as a definite program asset;

3. Some students feel they are learning more on this program. The only evidence given for this opinion is that grades, for some, are higher in Unit Step courses than was true in the traditional program; and

4. The focus upon specific events or areas in a course helps some to better understand the total picture. There are less who feel that focusing on specific things causes confusion of the total picture.

### Summary of Analyses

The following summary of analyses of teacher and student responses lists the various category breakdowns with accompanying probability tables. The summary concludes with comments in regards to the open-ended response items.

<u>Categories of teacher perception</u>	<u>Probabilities</u>
Length of service	
Others (Table 1.1)	0.453
Self (Table 1.2)	0.590
Program (Table 1.3)	0.404



Categories of teacher perceptionProbabilities

## Sex

Others (Table 2.1)	0.035*
Self (Table 2.2)	0.170
Program (Table 2.3)	0.013*

## Degree

Other (Table 3.1)	0.073
Self (Table 3.2)	0.269
Program (Table 3.3)	0.184

## Tenure/probation

Other (Table 4.1)	0.292
Self (Table 4.2)	0.046*
Program (Table 4.3)	0.138

## Department

Others (Table 5.1)	0.248
Self (Table 5.2)	0.768
Program (Table 5.3)	0.624

Categories of student perceptionProbabilities

## 10th and 12th graders

Others (Table 6.1)	0.194
Self (Table 6.2)	0.640
Program (Table 6.3)	0.504

## Sex

Others (Table 7.1)	0.003*
Self (Table 7.2)	0.034*
Program (Table 7.3)	0.014*

<u>Categories of student perception</u>	<u>Probabilities</u>
Grade point average	
Others (Table 8.1)	0.493
Self (Table 8.2)	0.122
Program (Table 8.3)	0.310
Continue education	
Others (Table 9.1)	0.009*
Self (Table 9.2)	0.024*
Program (Table 9.3)	0.307

<u>Categories of student/staff perception</u>	<u>Probabilities</u>
Other (Table 10.1)	0.0005*
Self (Table 10.2)	0.002*
Program (Table 10.3)	0.002*

(\* denotes a significant difference in program perception.)

In response to the open-ended statements on both student and teacher questionnaires, there was an air of cautious optimism by both groups. There is definite interest expressed in the advantages to be gained in Unit Step over the traditional programs, but there is at the same time little hesitation to list the problem areas along with the perceived advantages. This is indicated by the fact that disadvantages that were listed outnumbered the advantages by a wide margin for both groups. The major disadvantages of this program were attributed to its organizational structure.

There seems to be, on the whole, a desire on the part of most teachers and students to continue working with this

arrangement. What is seen as three major advantages over the other program are the expanded curriculum, shorter class duration, and improved student/teacher relations.

## CHAPTER V

### SUMMARY, CONCLUSIONS, DISCUSSION AND RECOMMENDATIONS

#### Summary

Within the scope of this study the perceptions of teachers and students on an intra- and inter-group basis at Howell Senior High School were examined. This provided a cross-sectional view of the Unit Step with more meaningful results than if only perceptions between teachers and students had been examined. The awareness of difference of program perception within the student and teacher groups should be as meaningful as would the differences between student and teacher groups.

The treatment to both groups was in the form of the Unit Step program in its first year of operation. Estimates of differences in program perception as analyzed from responses to survey instruments constituted the criteria measures. The samples used in the study were total population groups.

The purpose of this study was to determine the extent of similarity and difference between students and teachers on how each perceives various phases of the Unit Step program.

The needs of this study were to assist the Howell staff in Unit Step program progression and in assisting other schools which may be contemplating moving into the Unit Step or similar concept.

The questions considered in this study were:

1. What is the estimate of difference in perception of the Unit Step program among teachers in the various length-of-service categories?
2. What is the estimate of difference in perception of the Unit Step program between male and female teachers?
3. What is the estimate of difference in perception of the Unit Step program between teachers who have bachelor's degrees to teachers who have master's degrees?
4. What is the estimate of difference in perception of the Unit Step program between tenure and probationary teachers?
5. What is the estimate of difference among the various curricular departments in the perception of the Unit Step program?
6. What is the estimate of difference in the perception of the Unit Step program between 10th and 12th graders?
7. What is the estimate of difference in perception of the Unit Step program between boys and girls in grades 10 to 12?
8. What is the estimate of difference in perception of the Unit Step program among students in grades 10 to 12 in the various academic grade categories?
9. What is the estimate of difference in perception of the Unit Step program between students who will continue their education beyond high school and those who do not plan on continuing their education beyond high school?

10. How do the perceptions of teachers compare with those of students in the following three areas:
  - a. Perception of this program and others
  - b. Perception of this program and self
  - c. Perception of this program
11. What are the most favorable and least favorable aspects of the Unit Step program as perceived by teachers and students?

One of three techniques was applied in this study for analysis of each of these questions: 1) t statistic or a combination of t statistic and analysis of contingency table (ACT); 2) a combination of one-way analysis of variance and ACT; or, 3) content analysis.

The total Unit Step population of teachers and students was surveyed. Among the teachers, 38 of a total high school staff of 48 were involved in Unit Step and each responded to the questionnaire. There was a total of 974 students enrolled at Howell Senior High School for the 1969-70 school year. Of this number 863 were present for the survey. Because of spoiled optical scanning sheets from this group, it was possible to use only 680.

Both students and teachers were given matching survey instruments. These were designed for this study and were submitted to a field test before being administered in Howell. The statements in the instruments covered a broad spectrum of the total school atmosphere. The instruments were administered to the two groups at the same time.

Respondents were requested to record their answers on optical scanning sheets. After this was completed, the

sheets were collected and turned into the Test Scoring Office at Michigan State University. A set of weights for each of the four possible choices accompanied on the questionnaires for teachers and students to be separated into three categories, Perception of program and others, Perception of program and self, and Perception of program. A definition of these categories follows:

#### Perception of this Program and Others

Perception of parts of this program in relationship to how it affects people other than oneself. For example, students and teachers were asked to respond to statements which required them to give their opinion about how they think other students and teachers are perceiving parts of the Unit Step program.

#### Perception of this Program and Self

Perception of parts of this program in relationship to how it directly affects oneself. For example, students and teachers were asked to respond to statements which required them to give their opinion about how they personally perceive parts of the Unit Step program.

#### Perception of this Program

This involves personal evaluation of parts of the Unit Step program. Both students and teachers were requested to respond to statements which related to their opinion of the Unit Step program, independent of student or teacher considerations.

These three categories were assigned to each of the variable comparisons as found in the questions considered in this study. Analysis was then made on the basis of scores received in each of these categories.

### Findings

Five major findings emerged from this study:

1. There was a significant difference in how Unit Step is perceived by male and female teachers in the categories of Perception of this program and others and Perception of this program. Male teachers tended to rate the program higher than did female teachers.

2. There was a significant difference in how Unit Step is perceived by tenure and probationary teachers in the category Perception and this program and self. Probationary teachers tended to rate the program higher than tenure teachers

3. There were significant differences in almost half the student categories. Those were: sex (others, self and program), and between those who will or won't continue their education beyond high school (others, self). Girls approve of the program more than boys, as do those who will continue their education vis-a-vis students who do not plan on continuing their education beyond high school.

4. As indicated by the frequency counts of teacher categories most tended to either agree or disagree in program perception as is indicated by the frequency counts in the tables. Only 21 teacher selections were made for the Strongly



Agree category, while none was recorded in the Strongly Disagree category. When students took extreme positions, there were decidedly more choices made for Strongly Agree than for Strongly Disagree in the several categories, especially in Perception of the program, per se, in relationship to the categories of 10th to 12th graders, sex, grade point average, and continuing education.

5. Teachers and students have different perceptions of the Unit Step program. This finding is based upon comparison of the matching questionnaire statements that were divided into three parts, Perception of this program and others, Perception of this program and self, and Perception of this program. Students generally tend to favor the Unit Step program more than teachers.

### Conclusions

An examination of the data revealed:

1. While responses of both teachers and students to the open-ended statements in the questionnaires were compatible in several respects, i.e., perceptions of the Unit Step program were similar in expressed advantages and disadvantages, the data show significant differences in how both groups perceive the program on the three-part breakdown, Perception of program and others, Perception of program and self, and Perception of the program.

2. Males and females among teachers and students tend to differ significantly in their perceptions of the Unit Step program. This category (sex) is found to have the greatest similarity of difference between teachers and students. Females in both groups tend to rate the program higher than do males.

3. For the most part, the various teacher categories produced insignificant differences in perception of the Unit Step program, but the student group produced almost half (5) of its 12 categories as significantly different. Among the students, therefore, there were more who disagreed in their perceptions of the Unit Step program.

4. Notwithstanding the views expressed by both teacher and student groups in negative terms, both groups expressed positive opinions that tend to warrant continuation of the Unit Step program. The data show the program to be sufficiently interesting and rewarding to reach this conclusion. Attention apparently needs to be focused upon various organizational aspects of the Unit Step program in order to assure a higher measure of success.

### Discussion and Recommendations

There was a total of 10 tables that dealt with analysis of the category Perception of this program. Of those 10 there were 3 which displayed significant differences in findings. The findings and conclusions of this study, however, which pertain to the Perception of this program category are inconclusive because of the low teacher and student reliability scores in this area. (See reliability scores on page V-1).

There could be several reasons for this. For one thing, there was a low number of teachers who responded to the faculty instrument. Also, the category Perception of this program was comprised of only 18 statements in the questionnaire for teachers and 19 for students. The other categories (Perception of this program and others, Perception of this program and self) comprised well over 30 questionnaire items each. It is good to keep in mind that instrument reliability decreases when an instrument is divided into sub-parts for analysis purposes. Where these divisions are desired, however, they should be established either on the basis of total instrument item analysis, or from field test analysis. If there are shown to be, in fact, no natural categories the researcher must then consider analyzing only the total instrument rather than its parts. For this study the categories were arbitrarily established.

This study concerned itself with differences that might exist among teachers and students in regards to their perceptions of the Unit Step program. Of the 27 areas that were examined, there were 11 that were found to contain significant differences in perception. Three were contained in the teacher group (sex--others, program; tenure-probation--self) and 5 were in the student group (sex--others, self, program; continue education--others, self). Three more significant differences existed in the comparison of student/staff perceptions (others, self, and program).

These 11 significant differences occur primarily between sexes and between adolescents and adults. The earlier citing of Coleman's work with the adolescent sub-culture in ten northern Illinois high schools bears this out. Caudill (1966) in her study on student perceptions in a midwestern high school found that residence, sex and social activities are significantly strong in affecting student perceptions of environment. McNemar (1942) discovered that males are more likely to give good answers to some kinds of test questions, and females to others.

Supportive evidence suggests that it is only practical to begin tapping the resource of adolescents in curriculum planning. Curriculum planners should concentrate more heavily on diversified interests and interpretations that occur between the sexes and age groups. The notion that school authorities alone possess the expertise necessary to establish viable education objectives for the young denies the existence

of an adolescent sub-culture and all it has to offer. This is not unlike the attitude of plant managers toward workers in the bank wiring room in the Western Electric Company in Hawthorne, Illinois, during the years the famous Hawthorne studies were conducted.

Within the teacher group the data indicated three significant differences. Apparently the male teachers have a more optimistic opinion than do female teachers toward how the Unit Step program is related to others, as indicated by the mean differences in Table 2.1. In Table 2.3 a similar analysis can be made when one examines the means of men and women in their perceptions of the Unit Step program, per se. There could conceivably be more parts of the Unit Step program that appeal to men than to women. Men may have been more involved in the preparation of the Unit Step program. Table 4.2 depicts a significant difference between tenure and probationary teachers toward the program and its relationship to themselves. The higher percentage of probationary teachers favoring the program on a proportional basis could mean that younger teachers are more willing to accept this program change than are the older, more experienced staff members.

Each of these differences is between sex and age categories. In almost all the other teacher categories where differences are not significant, sex and age differences are not present.

The data for the student group revealed five significant differences within it. In all three sections of the sex category (others, self, and program) the girls seem to have a brighter view toward the Unit Step program than do the boys overall. Perhaps more girls find more courses to their liking, or enjoy the increased opportunity for more social contacts to a greater degree than do boys.

Tables 9.1 and 9.2 indicate that the Unit Step program is better thought of by students who will continue their education beyond high school than by those who won't. This may indicate the needs of the non-college bound aren't being met as well as are those of their counterparts.

The differences which exist between students and teachers in program perception are rather profound. Before too quickly citing the generation gap as the reason for this, however, it would be well to consider that the difference in size of these two populations makes it difficult to reach any conclusive reasons for the differences in program perception. Nevertheless, the differences in means of students and teachers do indicate the students have better opinions of the Unit Step program than do teachers. This may be due in part to youthful idealism, or because students benefit most from the program and therefore are most able to appreciate its benefits. Then again, maturity of teachers may allow for quicker recognition of genuine disadvantages of the Unit Step program.

Levels of legitimate misunderstanding may exist between the teachers and students in regards to the purposes and functions of the Unit Step program. If improved communications between these two groups could significantly reduce the difference of understanding, the effort should be undertaken.

The open-ended responses of teachers and students cited organizational deficiencies in the Unit Step program. The job responsibilities for the principal and assistant principal at the high school appear to be in need of re-evaluation. The presence of a curriculum council, a Unit Step supervising committee, and a coordinator for scheduling places into jeopardy the functions of the principalship.

There are several questions regarding this position that should be answered. For what and to whom is the principal going to be held accountable? Are two principalship positions necessary? How directly involved should the high school principal become in matters related to curriculum, personnel management, and student affairs? Is the principalship thought of as where independent leadership within a building is encouraged, or is the ability to follow prescribed methods of operation a prerequisite? What activities make the position viable and tenable?

The person occupying the principalship and the position itself must both be respected by the various segments of the school community. The degree that this may be lacking within a school could make the position an embarrassment.

As stated above, there were several expressions made by both students and teachers to the effect that organizational structure of the Unit Step program was responsible for many of its problems. This would necessitate the identification of problem areas and seeking out appropriate solutions.

Some questions to be raised by this approach would be: How are problem areas going to be identified? Who will be involved in identifying problem areas and recommending solutions? Will in-service or workshop experiences need to be organized, and if so, what format will be used?

One approach to consider might be the implementing of a structure which would involve all people working with the Unit Step program in ways that would be more direct. The method could be a team approach, whereby every Unit Step staff member would be assigned to work with approximately 25 students during the year on Unit Step counseling. At these meetings, which could be operated on a homeroom basis, all facets of the program could be discussed. This would require faculty members who are both enthusiastic and thoroughly knowledgeable about the Unit Step program. A variation of this plan would be to have larger teams with several teachers working in each team. This procedure could then more easily include those teachers who do not teach in the Unit Step program, but who nevertheless are affected by it.



In the earlier citing of the limitations of this study in Chapter I, mention was made of a number of student optical scanning sheets that were spoiled. While it is difficult to conjecture upon what may be internal reasons within the school that could have contributed in part to this, the giving of a test of this nature to this large a student population at one gathering should not have been attempted. Rather, it should have been administered by classroom teachers in their rooms. Teachers could have been instructed on the procedure and methods to use.

This technique, however, had been purposely avoided in this study. It was feared that students might have responded to the Unit Step program on the basis of their personal reactions to the teacher administering the test. In other words, had students taken the survey in rooms of popular, well-liked teachers, they could have been sensitized to rate the program higher than they honestly felt about it. Conversely, had students taken the survey in rooms of less popular and disliked teachers, they in turn could have been sensitized to rate the Unit Step program lower than they honestly felt about it. The open-ended statements could have been particularly biased in either direction had this technique of test administration been employed.

There is research which supports this position. Cogan (1963) provided evidence showing that pupil attitude toward tests depends upon the relationship which exists between teacher and student. Miller (1964) found that to the degree students are involved in the learning process in the classroom will their attitudes be positively or negatively expressed on questionnaires. Letzels and Jackson cite the work of Washburne and Heil (1960) which produced evidence showing the teacher's personality has a "marked and measurable effect" on the progress of pupils academically and socially. They found the self-controlling teacher gets the most achievement from the several different kinds of youngsters, while the fearful teacher gets the least achievement.

#### Recommendations for Further Research

Future studies of the Unit Step program in Howell should focus upon program evaluation and group processes.

There are some specific things to consider in evaluation and group dynamics. Evaluation will require a span of approximately two or three years to pass before such an undertaking should be attempted, however. This is necessary because a pre-test-post-test technique has never been applied, and this particular study is not an evaluation of the program. Had the pre-test-post-test technique been applied, it would have been possible to compare aspects of the Unit

Step and traditional programs. Future program evaluation should concentrate on both the cognitive and affective areas of the curriculum.

Administrators and teachers who truly desire program feedback from each other and from students should have an understanding of group dynamics. The works of Cartwright and Zander (1960), Knowles (1950), Pfeiffer and Jones (1970), and the National Training Laboratories booklet on group development (1961) are given as references.

#### Author's Observations

The Unit Step program has a good cognitive beginning. Among other advantages there are more course offerings for students and most of them the students seem to enjoy this new experiment, in spite of the frustrations it has created. The question the program initiators in Howell will ultimately face is: "Where do we go from here?"

Educators typically do not trust students. If everything isn't done for youngsters by the professionally trained educator there can be little merit, of course, in any scheme. But why not let the students choose who their teachers will be in Unit Step? And why not give consideration to letting the students work with teachers in planning various course outlines and in setting up new courses? Some of the research cited in this dissertation indicates that high school students do, in fact, have something constructive

to offer in curriculum suggestions. Unless their talent is enlisted in our high schools it is a misnomer to label schools as child-centered.

John Kremkow, the staff and students at Howell Senior High School are to be commended for having the courage to try something different. Heaven knows the education profession needs new models to look at. The Unit Step program provides a base from which some exciting things could happen.

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## **APPENDICES**

**APPENDIX A**

**FACULTY INSTRUMENT**

## INSTRUCTION SHEET

Faculty:

You are being asked to take part in an evaluation of the Unit Step program. This is necessary in order to determine where improvements are to be made. No attempt will be made to identify individual respondents.

Respond to a series of statements using a four point scale. Use the answer sheet provided. There are no answers that are necessarily either right or wrong. Mark the space on the answer sheet that will best record your true feelings according to the example below:

"Vanilla ice cream is better than strawberry ice cream."

Key:	<u>Mark space 1</u> if you strongly agree. (In other words, there's no doubt in your mind that vanilla ice cream is better than strawberry ice cream.)	1. Strongly agree
	<u>Mark space 2</u> if you agree with the statement. (In other words, with some possible exception you would almost always agree with this statement.)	2. Agree
	<u>Mark space 3</u> if you disagree. (In other words, with some possible exception you would almost always disagree with this statement.)	3. Disagree
	<u>Mark space 4</u> if you strongly disagree. (In other words, There's no doubt in your mind but that the statement is definitely wrong.)	4. Strongly disagree
		1 == 2 == 3 == 4 ==

The 5th answer space will not be used in answers 1 to 90.

## Definitions:

"This program"--Unit Step

"Other program"--Semester or yearly basis program at your school before introduction of the Unit Step

Before responding to the statements that have been prepared for you, please turn to #93 on your answer sheet to provide the following information. Mark only with a #2 lead pencil. (If you don't have a #2 lead pencil, one will be made available to you upon request. Do not use any other type of pencil or a ballpoint pen.)

Mark with your pencil the space that best applies to you in the following manner: 1 == 2 == 3 ==, etc.

93. Length of service in teaching in years (include 1969-70). Mark space 1 if you've been teaching from 0 to 3 years; 2 if from 4 to 7 years; 3 if from 8 to 11 years; 4 if from 12 to 15 years; 5 if from 16 to 20 years; 6 if 21 years or over.
94. If male, mark space 1; if female, mark space 2.
95. If you possess a bachelor's degree only, mark space 1; if you possess a master's degree or more, mark space 2.
96. Mark in which department you teach at the present time. Mark as often as necessary. 1 - Art; 2 - Business; 3 - English (language); 4 - Home economics; 5 - Math; 6 - Music; 7 - Physical education; 8 - Science; 9 - Shop; 10 - Social Studies.
97. If you are teaching presently on the Unit Step program (full or part), mark space 1. If you are not teaching presently on the Unit Step program (full or part), mark space 2.
98. If you have taught in the Unit Step concept at another school besides Howell, mark space 1. If you have not taught in this concept before it was introduced to Howell, mark space 2.
99. If you are at present a tenure teacher, mark space 1. If you are at present a probationary teacher, mark space 2.

After you have completed all that has been asked of you up to this point, turn the page and begin responding to items 1 to 90.

Thank you for taking part in this study.

1. Students need more assistance from counselors in choosing courses in Unit Step than they did in the other program.
2. Students feel that grades are more important in this program than they did in the other program.
3. Unit Step has made me curious about other courses being taught outside of my preparation area.
4. This program is going to better prepare students for the challenges of the adult world than did the other program.
5. My lessons for each day's instruction in Unit Step are well prepared.
6. This program has made teachers generally more interested in school affairs than they were in the other program.
7. In Unit Step students are not speaking out and expressing their opinions on various topics in the classroom anymore than they did in the other program.
8. I like issuing a credit and grade every eight weeks.
9. I have noticed less destruction (writing on desks, breaking windows) in Unit Step than there was in the other program.
10. I'm not doing as good a job of communicating my subject to students in this program as I did in the other program.
11. The studying of parts of a larger subject has made more sense out of the larger subject.
12. I prefer using paperback books in place of hardcover books in eight week courses.
13. This program has really made me feel stupid!
14. I'm making good use of my time in preparing my daily lessons in Unit Step.
15. I wish every course in school was only eight weeks long.
16. Because of Unit Step, I'm more encouraged to involve students in classroom work, such as small group discussions, than I was in the other program.
17. This program has broken up courses into too many parts for the parts to be meaningful.

18. Teachers and students seem to get along better on the Unit Step than they did in the other program.
19. Students seem to be less prepared for their lessons in Unit Step than they were in the other program.
20. This program has caused me to become more confused in what I'm doing.
21. This program has caused greater individual attention of teachers toward students.
22. Eight week sessions at five sessions per year seems to be the best way to operate this program.
23. This program doesn't encourage students to speak out and express their opinion on various topics in the classroom.
24. I would like to become involved in planning Unit Step courses with students in the future.
25. Most teachers like Unit Step and would like to stay on it.
26. Shifting classes every eight weeks bothers me.
27. Unit Step has made teaching so dull and boring that I can hardly stand it.
28. In this program teachers seem to be coming to more extracurricular events (plays, sporting events, etc.) after regular working hours.
29. I would prefer teaching students in the other program rather than in Unit Step.
30. This program has encouraged potential dropouts to stay in school when they otherwise might have quit school.
31. I think students are getting worse grades in Unit Step than they did in the other program.
32. Teaching two courses or more in the same subject area (for example, two English courses) to the same students in the same shift doesn't (or wouldn't) bother me.
33. I'm giving about the same amount of work on homework assignments in Unit Step as I did in the other program.
34. In Unit Step I'm not getting anymore students involved in class discussions than I did in the other program.

35. I'm using more audio-visual equipment and material in this program than I did in the other program.
36. In this program students aren't wasting their time in doing their lessons.
37. I often find students talking to their neighbors in class about things other than school work when they should be listening to me.
38. This program is going to prepare students better for any schooling after high school than did the other program.
39. Many teachers would like to become involved in planning Unit Step courses in the future with students.
40. Eight week courses are easier for students to pass than are semester or year long courses.
41. This program makes it possible for students to take many more courses than they were able to in the other program.
42. I'm enjoying working with students better in Unit Step than I did in the other program.
43. I think I'm issuing lower grades in Unit Step than I did in the other program.
44. This program has helped me meet more teachers.
45. In Unit Step I'm more interested in students as people, not just as students.
46. In this program I find students taking easy courses in order to avoid more challenging courses.
47. Shifting classes every eight weeks bothers most other teachers.
48. Unit Step has made the honor roll system obsolete.
49. In Unit Step the homework assignments of students are turned in on time more regularly than they were in the other program.
50. This program has caused students to do more pleasure reading outside of school and on their own than did the other program.
51. Teaching two courses or more in the same subject area (for example, two English courses) to the same students in the same shift doesn't bother most other teachers.

52. My assignments in Unit Step have increased the need for my students to use the school library more often.
53. This program increased the need for more clubs and organizations in the school.
54. Unit Step has made me involve students more in classroom work, such as small group discussions, than I did in the other program.
55. This program has increased the need for students to do more memorizing than was necessary in the other program.
56. In this program students are listening more carefully to what a teacher says when assigning homework.
57. Unit Step has made me realize that most of the responsibility for getting school work done rests with the student.
58. Many teachers don't like the idea of getting new classes of students so often, which is required by Unit Step.
59. Eight week shifts have made courses more interesting to me than they were in the other program.
60. Students seem to be less enthusiastic in this program than in the other program.
61. This program has increased my self-confidence as a teacher.
62. In Unit Step I'm more anxious than I was in the other program to have vacations end so that I can get back to school.
63. I wasn't involved enough in planning this program.
64. Most teachers like to award a credit and grade every eight weeks.
65. In this program I'm coming to more extra-curricular events (plays, sporting events, etc.) after regular working hours.
66. This program has made more responsible citizens of students.
67. Most teachers prefer using paperback books in place of hardcover books in eight week courses.



68. Students seem to be quite anxious and worried in Unit Step about such things as getting their homework done, passing or failing, and the grade they are going to receive.
69. It's easier for me to "live with" students I don't like in Unit Step than it was in the other program.
70. In this program most students feel as though they are graded unfairly.
71. Since Unit Step, parents seem to be less interested in what their children are doing in school.
72. This program has encouraged students to come to me to have personal talks.
73. I think more courses ought to be required in this program.
74. I don't like the idea of getting new classes of students so often, which is required by Unit Step.
75. I like Unit Step and hope it continues.
76. This program has increased my interest in school sports.
77. I feel well prepared for each subsequent course I teach in Unit Step.
78. In Unit Step I find that I'm giving students more individual attention.
79. This program has made me generally more interested in school affairs than did the other program.
80. Most of the students seem to be very confused by this program.
81. I think this program has taken away some of the interest students have had in athletic rivalry with other schools.
82. I think I'm giving students sufficient help in choosing courses in Unit Step.
83. Students are taking better care of school property in Unit Step than they did in the other program.
84. Many teachers find students talking to their neighbors in class about things other than school work when they should be listening to teachers.

85. Most teachers would like to have all courses be eight weeks long.

86. This program makes it harder to get to know the students compared to the other program.

87. This program should better encourage students to think about teaching as a career than did the other program.

88. This program has caused students to find less of an interest in their courses.

89. The thing I like most about this program is: (If you wish to make an entry here, please write it in this space.)

90. My strongest objection to this program is: (If you have an objection, please write it in this space.)

**APPENDIX B**

**STUDENT INSTRUMENT**

## INSTRUCTION SHEET

Students:

You are being asked to take part in an evaluation of the Unit Step program. Your honest appraisal is needed in order to make any necessary changes that will lead to improvements. No attempt will be made to identify individual respondents.

Respond to a series of statements using a four point scale. Use the answer sheet provided. There are no answers that are necessarily either right or wrong. Mark the space on the answer sheet that will best record your true feelings according to the example below:

"Vanilla ice cream is better than strawberry ice cream."

Key: Mark space 1 if you strongly agree. (In other words, there's no doubt in your mind that vanilla ice cream is better than strawberry ice cream.)

Mark space 2 if you agree with the statement. (In other words, with some possible exception you would almost always agree with this statement.)

Mark space 3 if you disagree. (In other words, with some possible exception you would almost always disagree with this statement.)

Mark space 4 if you strongly disagree. (In other words, there's no doubt in your mind but that the statement is definitely wrong.)

1. Strongly agree  
2. Agree  
3. Disagree  
4. Strongly disagree

1 == 2 == 3 == 4 ==

90. The 5th answer space will not be used in answers 1 to

## Definitions:

"This program"--Unit Step

"Other program"--Semester or yearly basis program at your school before introduction of the Unit Step.

Before responding to the statements that have been prepared for you, please turn to #93 on your answer sheet to provide the following information. Mark only with a #2 lead pencil. (If you don't have a #2 lead pencil, one will be made available to you upon request. Remember to return the pencil you borrow along with your questionnaire and answer sheet. Do not use any other type of pencil or a ballpoint pen.)

Mark with your pencil the space that best applies to you in the following manner: 1 == 2 == 3 == 4 ==, etc.

93. Mark space 1 if you are in the 10th grade; space 2 if an 11th grader; space 3 if a 12th grader.
94. Mark space 1 if you're a boy; mark space 2 if you're a girl.
95. Approximate grade point average in the 1968-69 school year (last year). Mark space 1 if your average was a D+ or below; mark space 2 if your average was between a C- and a C+; mark space 3 if your average was between a B- and a B+; mark space 4 if your average was A- or above.
96. If you plan to continue your education beyond high school, mark space 1. If you do not plan to continue your education beyond high school, mark space 2.
97. If you were a student in Unit Step at another school before coming to Howell, mark space 1. If the program at Howell has been your first experience with Unit Step, mark space 2.

Next, write at the top of your answer sheet by the space where it says "Name," what your primary vocational interest is. For example, nursing, tool and die making, lawyer, carpenter, doctor, teacher, etc. If you don't know, do not write anything in this space.

After you have completed all that has been asked of you up to this point, turn the page and begin responding to items 1 to 90.

1. Students need more assistance from counselors in choosing courses in Unit Step than they did in the other program.
2. I feel that grades are more important to me in this program than I did in the other program.
3. Unit Step has made me curious about other courses being taught in our school.
4. This program is going to better prepare students for the challenges of the adult world than did the other program.
5. Teachers seem to be well prepared for their classes in Unit Step.
6. This program has made students generally more interested in school affairs than did the other program.
7. This program doesn't encourage me to speak out and express my opinion anymore than the other program on various topics in the classroom.
8. I like receiving a credit and grade every eight weeks.
9. This program has increased my concern with helping to stop the destruction of school property (writing on desks, breaking windows, etc.)
10. Teachers aren't doing as good a job of communicating their subject to students in Unit Step as they did in the other program.
11. The studying of parts of a larger subject has made more sense out of the larger subjects.
12. I prefer using paperback books in place of hardcover books in eight week courses.
13. This program has really made me feel stupid!
14. I'm making good use of my time in preparing my lessons in this program.
15. I wish every course in school was only eight weeks long.
16. Unit Step has made me wish teachers would involve me more in classroom work, such as small group discussions.
17. This program has broken up courses into too many parts for the parts to be meaningful.

18. Teachers and students seem to get along better in the Unit Step program than they did on the other program.
19. I don't seem to be as well prepared for my lessons in Unit Step as I was in the other program.
20. This program has caused students to be more confused in school.
21. This program has caused greater individual attention of teachers toward students.
22. Eight week sessions at five sessions per year seems to be the best way to operate this program.
23. This program hasn't encouraged my classmates to speak out in the classroom and express their opinion.
24. I would like to become involved in planning Unit Step courses with teachers in the future.
25. Most students like Unit Step and would like to see it continue.
26. Shifting classes every eight weeks bothers me.
27. Unit Step has made school so dull and boring that most of the time I can hardly stand it.
28. In this program students seem to be coming to more extracurricular events (plays, sporting events, etc.).
29. Many teachers would obviously prefer to teach students in the other program rather than with Unit Step.
30. This program has encouraged students to stay in school when they otherwise might have dropped out.
31. Most students seem to be getting worse grades in Unit Step than they did in the other program.
32. Taking two courses or more in the same subject area (for example, two English courses) in the same shift doesn't (or wouldn't) bother me.
33. This program has increased homework assignments for students to the point where many teachers are unfair.
34. In Unit Step most teachers do not let students get anymore involved in class discussion than they did in the other program.

35. Teachers are using more filmstrips, recordings, and other audio-visual equipment and material in Unit Step than they did in the other program.
36. In this program I'm not wasting my time in doing my lessons.
37. I often find myself talking to my neighbors in class about things other than schoolwork when I should be listening to the teachers.
38. This program is going to prepare students better for any schooling they might have after high school than did the other program.
39. Many students would like to get involved in planning Unit Step courses with teachers in the future.
40. Eight week courses are easier for students to pass than are semester or year long courses.
41. This program makes it possible for students to take many more courses than they were able to in the other program.
42. I'm enjoying my teachers more in Unit Step than I did in the other program.
43. I think I'm getting lower grades in Unit Step than I did in the other program.
44. This program has helped students get to know more kids.
45. In this program teachers seem to be more interested in me as a person, not just as a student.
46. In this program I find myself taking easy courses in order to avoid more challenging courses.
47. Shifting classes every eight weeks bothers most students.
48. The honor roll system should be done away with because of Unit Step.
49. In Unit Step my homework assignments are turned in on time more regularly than they were in the other program.
50. This program has caused me to do more pleasure reading outside of school and on my own time than did the other program.



51. Taking two courses or more in the same subject area (for example, two English courses) in the same shift doesn't (or wouldn't) bother most students.
52. Students are using the school library more now since we've been on Unit Step.
53. This program increases the need for more clubs and organizations in the school.
54. Because of Unit Step I think many students would like to become more involved in classroom work, such as small group discussions.
55. This program has increased the need for me to do more memorizing than was necessary in the other program.
56. In this program I'm listening more carefully when a teacher assigns homework.
57. Unit Step has made students realize that most of the responsibility for getting schoolwork done rests with the individual student.
58. Many students don't like changing teachers so often.
59. Eight week shifts have made courses more interesting to me than they were in the other program.
60. Teachers appear to be less enthusiastic in this program.
61. This program has increased my self-confidence as a student.
62. In Unit Step I'm more anxious than I was in the other program to have vacations end so that I can get back to school.
63. I would like to have been involved in planning this program.
64. Most students like receiving a credit and grade every eight weeks.
65. In this program I'm coming to more extra-curricular events (plays, sporting events, etc.).
66. This program has made a more responsible citizen of me.
67. Most students prefer using paperback books rather than hardcover books in eight week courses.

68. I'm quite anxious and worried in Unit Step about such things as getting my homework done, passing or failing, and what grade I'm going to get.
69. It's easier for me to "live with" teachers I don't like in Unit Step than it was in the other program.
70. In this program most teachers grade me unfairly.
71. Since Unit Step, my parents have become less interested in what I'm doing in school.
72. This program has encouraged me to have personal talks with teachers.
73. I think more courses ought to be required in this program.
74. I don't like changing teachers so often which is required by Unit Step.
75. I like Unit Step and hope it continues.
76. This program has increased my interest in school sports, either as an observer or participant.
77. I feel well prepared for each new course I take in Unit Step.
78. I think I'm receiving greater individual attention from teachers in Unit Step than I did in the other program.
79. This program has made me generally more interested in school affairs than I was in the other program.
80. Most students seem to be very confused by this program.
81. This program has taken away some of the interest I've had in athletic rivalry (competition) with other schools.
82. I could use more assistance from teachers in choosing courses in Unit Step.
83. The Unit Step has encouraged students to take better care of school property than they did in the other program.
84. Other students are often talking to their neighbors in class about things other than schoolwork when they should be listening to the teacher.
85. Most other students would like to see all courses be only eight weeks long.

86. This program makes it harder to get to know the teachers compared to the other program.

87. This program would be more of an encouragement to me to think about teaching as a career than would the other program.

88. This program has caused me to find less of an interest in my courses.

89. The thing I like most about this program is: (If you wish to make an entry here, please write it in this space.)

90. My strongest objection to this program is: (If you have an objection, please write it in this space.)

**APPENDIX C**

**COMPLETE COURSE OFFERINGS BY TITLE**

## COMPLETE COURSE OFFERINGS BY TITLE

### Sequential Offerings

#### Business

Shorthand I/II  
Typing I/II  
Bookkeeping/Acc'tg.

#### Drafting and Shop

Basic drawing  
Mechanical drawing  
Bench woodworking  
Office/trade  
Advanced woodworking

#### Language

French I/II  
Spanish I/II  
Latin I/II

#### Mathematics

Essential math  
Secondary math  
Algebra  
Geometry  
Pre-calculus

#### Music

Varsity band  
Concert band  
Concert choir  
General choir I/II  
Highlander chorale

#### Physical education

Basic gym boys/girls  
Advanced games boys/girls

#### Science

Academic biology  
Chemistry  
Physics

#### Social studies

Basic U.S. history

### Unit Step Offerings

#### Art

Art survey  
Drawing I/II/III  
Design  
Intro. ceramics  
Ceramics  
Intro. sculpture  
Intro. painting  
Leather crafts  
Jewelry/copper enameling

#### Business

Notehand I/II  
Personal typing I/II  
Term paper, report typing  
Personal finance  
Stocks, bonds  
Planning use of money  
Banking services

#### Business opportunities

Charm, personality  
Income tax  
Intro. Bookkeeping  
Business filing  
Business letter writing  
Data processing I/II  
Salesmanship  
Marketing  
Office Machines I/II

#### Drafting and Shop

Pre-engineering drawing  
Basic arch detailing  
Adv. arch detailing  
Arch house planning  
Arch elevation drawing  
Welding I/II  
Foundry I/II

Machine shop I/II  
 Sheet metal  
 Furniture refinishing  
 Avocational woodwork I/II  
 Engine theory  
 Small engines I/II  
 Transmissions I/II  
 Fuel Systems  
 Test equipment  
 Body repair I/II

#### English

Anglo saxon, medieval lit.  
 Elizabethan Age Lit.  
 Eng lit. of 17-19th cent.  
 Romantic Age lit.  
 Victorian Age lit.  
 Shakespeare works  
 Modern British novel  
 Puritan, Yankee rebel  
 American romanticism  
 Amer. realism, naturalism  
 Dimensions of the novel  
 Modern Amer. novel  
 Modern Amer. poetry, drama  
 Contemporary plays  
 Modern Amer. short story  
 American short story  
 20th century Amer. authors  
 The short story  
 Modern short story  
 Reflective short story  
 Reading plays  
 Voices in poetry  
 Contemporary essays  
 Bible as lit.  
 Negro lit. contributions  
 World lit. - Russian  
 World lit. - general  
 Drama I/II  
 Humor, satire, parody  
 Pleasure reading  
 Science fiction  
 Problems of usage I/II  
 Practical punctuation  
 Sentence patterns  
 The paragraph  
 Writing I/II  
 Composition I/II/III  
 Writing research paper  
 Creative writing  
 Adv. grammar  
 Parliamentary procedure

Public speaking I/II  
 Oral reading interpretation  
 Debate I/II  
 Radio, TV writing  
 Group discussion  
 Journalism I/II  
 Photo journalism  
 Propaganda in mass commo.  
 Personal reading instruction  
 Developmental reading  
 Speed reading  
 How to read a book  
 Mythology I/II  
 Stagecraft  
 Philosophy problems and principles  
 Increasing vocabulary  
 Newspaper journalism  
 Yearbook journalism

#### Home economics

It's fun to sew  
 Sewing I/II/III  
 Party planning  
 Cooking and pricing meals  
 Interior decoration  
 Poise  
 Child care  
 First aid, health  
 Housing  
 Furnishing the home  
 Meal service  
 Beauty, vitality  
 Planning for company  
 Foreign, outdoor cooking  
 Canning, freezing  
 Cake decorating  
 Marriage, family I/II  
 Home economics

#### Mathematics

Math, imagination  
 Foundations of math  
 Review of fundamentals  
 Fractions, percents

#### Physical education

Water sports  
 Fishing, hunting  
 Winter sports  
 Camping, archery  
 Interpretive dancing  
 Tennis  
 Golf  
 Adv. volleyball

**Physical fitness**

Softball

Adv. gymnastics

Track, field

Elem. weight lifting

Adv. weight lifting

Gymnastics

Health I/II

Intro. folk, rock music

**Science**

Light optics color

Lab apparatus measure

Radio activity

Space science

Instruments, commo.

Basic electricity

Astronomy

Nature of matter

Weather

Earth's surface

Topography

Minerals, rocks

Drugs, alcohol

Reproduction of life

The Big Germ

Behavior plant, animal

Your feathered friends

Natural resources

Human anatomy digest

Plant classification

Ecology

Human anatomy, circulation

Human anatomy, nerves

Human anatomy, muscles

Human anatomy, reproduction

**Social studies**

Practical law

Supreme court

Comparative government

Ideas in conflict

Local, state government

National government

Archeology, museum

America before colonies

Colonization, new world

English colonial period

Jefferson, Jackson

American West

Reform, protest liberals

Arms, armor

Contemporary U.S. history

Amer. foreign policy

Party politics in U.S.

World Wars I and II

Revolutions - Fr.-Russ.-U.S.

Causes of Civil War

Civil War

Roaring Twenties

The thirties

Industrial revolution

Developing Amer. colonies

Adjustments to depression, war

Crime, punishment

Banks

Taxes - income, outgo

Michigan in Civil War

Churchill - man, times

Dictators

Fundamental sociology

Social self and status

**APPENDIX D**

**COURSE SELECTION SHEET**



# TEST DATA SHEET

HOWELL SENIOR HIGH SCHOOL

## DIRECTIONS

UNIT STEP SELECTION SHEET 1969-70

1. Print data neatly.
2. Use numbers for courses.
3. To take 1 year of a subject you must have 5 classes listed. You may add more Units if you wish.
4. Be sure to check the requirements on page \_\_\_\_.
5. Year courses are listed in separate boxes.
6. List at least two alternates to help solve scheduling problems early.
7. A normal load would be 5 hours per day for 5 marking periods of 25 Units. A year course would count as 5 Units or credits.
8. Have each class initialed by a teacher in the area you are signing up for.
9. Maximum number that can be signed up for (year courses x 5 + Units = 30).

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

GRADE NEXT YEAR \_\_\_\_\_

PHONE \_\_\_\_\_

COLLEGE PREP ☐

BUSINESS ☐

GENERAL ☐

Courses I want

UNIT STEP COURSES (Each Lasts 8 Weeks)

All Year

Subject Area

	ALG.	T.O.K.	ENG.	T.O.K.	SC.	T.O.K.	BIOL.	EC.	T.O.K.	ARTS	T.O.K.	MATH	T.O.K.	P.E.	T.O.K.	REL.	T.O.K.	ST.	T.O.K.	OT	T.O.K.
<input type="checkbox"/>																					
<input type="checkbox"/>																					
<input type="checkbox"/>																					
<input type="checkbox"/>																					

Alternates, list below, if above cannot be scheduled


COUNSELOR SIGNATURE \_\_\_\_\_

PARENTS SIGNATURE \_\_\_\_\_

**APPENDIX E**

**CHANGE-IN-PROGRAM INFORMATION**

# CHANGE-IN-PROGRAM INFORMATION

Course Number	Course Name	Textbook Used
<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>

Prerequisite  
Number

Type  
Course

Number of  
weeks long

7 8 9 10 11 12

1. What you will study. Examples
2. Inclusive of (what are the bounds?)
3. What will it teach the students? Skill
4. If there is a prerequisite, why?
5. What materials/projects if any will the student be expected to supply or do?

Best Shift to Offer Course

\_\_\_\_\_  
Author Signature

To: Unit Step Teachers  
From:

### UNIT STEP

The attached form will be used by grades 7-12, Unit Step courses as a guide for teachers. We have tried to make the form as simple as possible, yet require some thought and consistent follow-through from you who are preparing these guides.

The purpose, first of all, is to establish a bonafide course, i.e., one which students have need for and interest in.

I am sure a course such as "Term Paper" can be justified with many objectives. However, courses with a title such as "Card Games For Today" or the "Feasibility of Dynamic Balance" need objectives justifying why a high school or junior high should be involved with teaching children these things. Objectives are, therefore, what we are going to ask you to concentrate on. If you have not had a chance to look over Preparing Instructional Objectives - Mager, do so, as this paperback has much to help you and will make the task much simpler. Your principal has been given several copies.

So that we do not have to ask that you rewrite the objectives, please read the following carefully as it will help you in saying exactly what needs to be said in order to develop concise curriculum guides.

The first objectives you write will be that of the general, overall purpose of the unit. The unit length will be eight weeks. Therefore, ask yourself what a student in your class will have learned, or be able to do or demonstrate by having taken your class. What will be his observable and/or measurable attributes? Describe them in the part marked Overall Objectives.

The weekly objectives are listed as such and no goals or sub-goals are asked for. What we do want for this year is a good clear and concise objective. The following kinds of questions should be answered when you write these weekly objectives.

1. What kind of performance do I expect? What limits, if any, should there be?
2. What specifics am I doing which the student can see as instructional and/or meaningful?
3. What will be the basis of evaluation by week or by course? Tests? If others, what others?

4. What conditions will you impose to effect what kind of terminal behavior?
5. With what or to what will a student be able to demonstrate this knowledge you are giving him? What kinds of situations can be created to show his learning achievements?

Some of the above statements are repeated in words which we hope will clarify them. Not all of these can be listed for every weekly objective. What we would like is for you to think through carefully what you are going to do for that child in eight weeks and how you are going to proceed to do it.

If you use phrases such as the following--to know, to understand, to really understand, to appreciate, to group the significance of, to enjoy, to believe, to have faith--we are in trouble. We all have different understanding of these words and they therefore have many interpretations.

Phrases more descriptive with fewer interpretations are--to write, to recite, to identify, to differentiate, to solve, to construct, to list, to compare, to contrast. As you write your weekly objectives, think in terms of what you expect students to end up with after they have finished this course. In doing this, both you and the student will have much more to go on.

Although one objective or more may run through for more than one week, it is necessary to list at least one objective per week. For example, "Objective--The student will be able to identify the tools used on a metal lathe as well as operate same and turn a project in one half hour's time with given tolerance."

The form on the next page applies only to Unit Step courses and not to year-round courses as already offered.

UNIT STEP COURSE OUTLINE

CIRCLE GRADES WHICH APPLY

☐

SENIOR HIGH

7

8

9

10

11

12

JUNIOR HIGH

☐

COURSE TITLE \_\_\_\_\_

PAPERBACKS FOR TEXTS \_\_\_\_\_

AUTHORS \_\_\_\_\_

COMPANY (ADDRESS) \_\_\_\_\_

COPYWRITE DATE \_\_\_\_\_

NAMES OF PREREQUISITES (IF ANY) \_\_\_\_\_

LIST REASON FOR \_\_\_\_\_

OVERALL COURSE OBJECTIVES \_\_\_\_\_

FIRST WEEK OBJECTIVES \_\_\_\_\_

SECOND WEEK OBJECTIVES \_\_\_\_\_

(USE BACK OF THIS SHEET FOR ADDITIONAL EXPLANATIONS)

THIRD WEEK OBJECTIVES \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

FOURTH WEEK OBJECTIVES \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

FIFTH WEEK OBJECTIVES \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

SIXTH WEEK OBJECTIVES \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

SEVENTH WEEK OBJECTIVES \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

EIGHTH WEEK OBJECTIVES \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(USE BACK OF THIS SHEET FOR ADDITIONAL EXPLANATIONS)

**APPENDIX F**

**SURVEY INSTRUCTIONS TO**

**FACULTY AND STUDENTS**



## Faculty Instructions

### Announce two days prior to the survey date:

"On (date) you will take part in an evaluation of the Unit Step program. After 1st hour roll is taken and your students are excused to go to the gymnasium (please wait for the announcement over the public address system), you are to go to room #---. There you will receive a test booklet and answer sheet. Do not write anything until told to do so. Thank you."

### Announce at room #--- just prior to the test on the survey date:

".Do not put your name on the answer sheet.

".Use only a #2 lead pencil. No other writing instrument is to be used. Ask a proctor for a #2 lead pencil if you don't have one.

".Turn to the last page of the test booklet. Numbers 89 and 90 are only to be given one answer each.

".Answer going across the page on the answer sheet, not down.

".Some statements will sound similar, but are not exactly alike. There is a purpose for this.

.Keep tests and answer sheets together when you turn them both in.

.If there are no questions, you may begin."

### Student Instructions

#### Announce two days prior to the survey date:

"On (date) you will be taking part in an evaluation of the Unit Step program. Report to first period class and from there you will be excused to go to the gymnasium after roll is taken to take part in the evaluation. You should be able to complete this in less than an hour. Be sure to take a #2 lead pencil with you and a book to write on. Any other type of writing instrument besides a #2 lead pencil cannot be used."

#### Announce to students prior to their being dismissed from first hour class on the survey date:

"You will shortly be excused to go to the gym to take part in an evaluation of the Unit Step program. The following guidelines are to be observed:

1.) Take with you a #2 lead pencil. It is suggested that you take a book to write on.

2.) Upon entering the gym, pick up a test booklet and answer sheet from student proctors. Go immediately to the proper area. Seniors - lower bleachers north side; juniors - bleachers southeast side; sophomores - bleachers southwest side).

3.) Do not write anything until told to do so."

Announce to students after they have assembled in the gymnasium on the survey date:

"This morning you will be taking part in evaluation of the Unit Step program. Your responses are needed in order to make any necessary changes in the program.

You should all have the following three items: a test booklet, an answer sheet, and a #2 lead pencil. If you don't have all of these items go to a proctor to receive what you need.

Next, be sure there is a number on your answer sheet in the upper right hand corner. When answering remember that the answers go across the page, not down.

Now turn to the last page of your test booklet. When you come to items number 89 and 90, put down only one answer in the space provided. If you put down that the program is either good or bad give a specific reason if you can.

Turn back to the front page.

Some statements will sound similar, but are not exactly alike. There is a specific reason for this. The example on the front page of the test booklet is how statements 1 through 88 are to be answered.

If you have any question, come down to see me.

As soon as you're done, turn in your answer sheet, test booklet and pencil in the boxes provided by the West exit. Go to your second hour class.

You may begin by turning to page two of your test booklet and responding to items as instructed."