Categories of effective and ineffective behavior in regard to Goal Ten of the Quality Education Program (regarding student preparation for a changing world) are listed. Both the rationales for areas of effective student behavior and the categories of teacher strategies are also included. (See TM 375 for project description.) (MS)
QUALITY EDUCATION
PROGRAM STUDY

PREPARATION
FOR A
CHANGING
WORLD

PENNSYLVANIA
GOAL TEN

AN ESEA TITLE III PROJECT
COORDINATED AND DIRECTED BY:
Office of the County Superintendent
Bucks County Public Schools
Division of Curriculum and Instruction
IN COOPERATION WITH:
The Pennsylvania Department of Education

JUNE 1971
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PUBLIC, PRIVATE, AND PAROCHIAL SCHOOLS

Teachers, administrators, students, and parents in public, private, and parochial schools in the Commonwealth generally, and specifically the pilot areas of Allegheny, Beaver, Bucks, Erie, Luzerne and Westmoreland Counties and the Cities of Erie and Pittsburgh.
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For technical assistance with the Critical Incident Technique, data collection procedures, student and teacher behavioral specifications and related rationales.

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PREFACE

The Bucks County Schools have for some time been committed to improving the quality of the educational offerings for its youth. Characteristic of that commitment was the manner in which officials of the Pennsylvania Department of Education, Bucks County Public Schools, Luzerne County Public Schools, Allegheny County Public Schools, Penn-Trafford School District, Pittsburgh School District, and Erie School District joined together in 1966 to draft the proposal for the Quality Education Program Study (QEPS). Conceived as a complement to Pennsylvania's pioneering efforts to assess the quality of its schools, the study was designed to define and clarify the Ten Goals of Quality Education adopted by the State Board of Education in 1965.

The following booklet is a part of the story of how Q.E.P.S. went about its ambitious task, and the results of that effort. We trust this statement of the behavioral definitions for Pennsylvania's Ten Goals of Quality Education will serve as a guide for the evaluation and improvement of teaching and learning in the schools of the Commonwealth.

Dr. George E. Raab
County Superintendent
Bucks County Public Schools
INTRODUCTION

In recent years there has been an increased interest in goal definition in education. Most efforts toward the establishment and definition of goals seem to take the form of generalizations or descriptive statements. Little, if any, data is available concerning empirical methods for defining educational goals.

Until recently, the "Goals for Quality Education" were not defined in a coherent form. An analysis of this problem revealed that most stated goals have little exact meaning for the practicing educator. Frequently, goals are stated in such general terms that any educator could convince himself that these goals are the purpose that guide his program. Goals are statements of general educational intents. While it is not absolutely necessary for goals to be stated in performance terms, the more clearly these statements are described, the more readily we can develop valid indicators of pupil behavior.

The first step in constructing an instructional program centers upon the need for a set of objectives. An objective refers to the performance or change in behavior a pupil is to exhibit upon completion of instruction. Therefore, meaningful objectives should relate to the "Goals for Quality Education". If one is "to measure objectively the adequacy and efficiency" of educational programs, these objectives must be described in terms of not what the schools do, but in what children do. One must itemize the kinds of behavior that add up to the goals for quality education if we are ever to know how children progress toward the goals or how efficient an educational program may be in furthering such
The formulation and adoption of Pennsylvania's Goals of Quality Education represents a major step toward the definition of the State's educational intents, making possible an assessment of its efforts toward the fulfillment of those intents. In an effort to further increase the utility of the goals to the practitioner and evaluator, the Quality Education Program Study was proposed to review, define, and clarify the Ten Goals. Funded in 1968 under E.S.E.A. Title III, Q.E.P.S. made a unique departure from the usual "armchair philosophy" or logical approach to goal definition by deciding to employ the Critical Incident Technique. This technique was used to collect empirical data to define the goals.

The QEPS staff collected critical incident data from teachers, students, and parents from various urban, suburban, and rural areas throughout the State. These data included both student behaviors indicative of achievement of the Ten Goals and teacher behaviors effective in helping students achieve these Goals.

The resulting descriptions or definitions for each of the Ten Goals include: (1) Student Behaviors, (2) Rationales or narrative explanations, and (3) Teacher Strategies. Also, for each Goal QEPS has developed needs assessment instruments to provide the practitioner with a mechanism to systematically gather information to assess its needs and assign priorities to those needs.

It is hoped that the resulting products of three years of intensive work devoted to defining Pennsylvania's Ten Goals of Quality Education will provide various segments of the educational community with information and the means to continue to improve the quality of education for the students of Pennsylvania.

Raymond Bernabei
Assistant Superintendent
Bucks County Schools

Donald L. Wright
Project Director, Q.E.P.S.
PROJECT REPORTS

The following is a listing and brief description of the reports produced by the Quality Education Program Study:

**Booklet A**

**Project Description**
A description of the project including a background and overview and a detailed report of procedures used to collect, handle, and analyze the data. Includes an appendices.

**Booklet B**

**General Needs Assessment**
Instructions

**Booklet C**

**Characteristics of Incidents and Their Reporters**
Gives a tabulation of various characteristics of reporters for each category and sub-category of student behavior.

Goals One through Ten each have two reports. The first is a **Description** of the goals, containing three basic components: (1) the categories of student behavior, (2) rationales for the areas of effective student behavior, and (3) related teacher strategies. The second report is related to the Needs Assessment of that goal and contains: (1) Instructions, (2) the general needs assessment instrument for that goal, and (3) an analysis of instruments related to that goal. The booklets for the Ten Goals are:

- **Goal One - Self Understanding**
  - Booklet 1 Description
  - Booklet 1A Needs Assessment

- **Goal Two - Understanding Others**
  - Booklet 2 Description
  - Booklet 2A Needs Assessment

- **Goal Three - Basic Skills**
  - Booklet 3 Description
  - Booklet 3A Needs Assessment
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GOAL TEN

QUALITY EDUCATION SHOULD HELP EVERY CHILD TO PREPARE FOR A WORLD OF RAPID CHANGE AND UNFORESEEABLE DEMANDS IN WHICH CONTINUING EDUCATION THROUGHOUT HIS ADULT LIFE SHOULD BE A NORMAL EXPECTATION.

"The explosion in knowledge, the impact of science on the economy, the almost unpredictable nature of the job market for both the short term and the long term, the increase in the opportunity for leisure time activities--all these developments make it apparent that education, if it is to fulfill the life-long needs of the individual and the future needs of society, cannot stop at grade 12 or grade 14 or grade 16. Such continuing education may take many forms: it may be self-education; it may be formally organized retraining; it may be adult classes of a recreational nature. Whatever the form, it must be regarded as an essential of an individual's activity through his adult life if he is to keep up-to-date as a worker, as a citizen, and as a person."1

SUMMARY OF THE AREAS OF EFFECTIVE BEHAVIOR

Goal 10: Quality education should help every child to prepare for a world of rapid change and unforeseeable demands in which continuing education throughout his adult life should be a normal expectation.

1. STUDENT WILLINGLY CHANGED PATTERNS IN HIS PRESENT LIFE OR DEMONSTRATED HE COULD ADAPT TO CHANGES THAT AFFECT HIS LIFE OR LIFE STYLE.

2. STUDENT DEMONSTRATED THAT HE APPRECIATED THE NECESSITY TO PLAN FOR FUTURE EDUCATION, A CAREER, ETC., OR TO HAVE RESPONSIBLE WORK HABITS.

3. STUDENT EDUCATED HIMSELF, KEPT INFORMED, KEPT UP-TO-DATE OR GAINED ENJOYMENT BY READING AND/OR PARTICIPATING IN ACTIVITIES.

0. MISCELLANEOUS.

0.1 Miscellaneous, Goal 10 Effective.

0.2 Miscellaneous, other than Goal 10 Effective.
Goal 10. Quality education should help every child to prepare for a world of rapid change and unforeseeable demands in which continuing education throughout his adult life should be a normal expectation.

CATEGORIES OF EFFECTIVE BEHAVIOR

1. STUDENT WILLINGLY CHANGED PATTERNS IN HIS PRESENT LIFE OR DEMONSTRATED HE COULD ADAPT TO CHANGES THAT AFFECT HIS LIFE OR LIFESTYLE.

1.1 Student showed that he was able to adapt to changes in demands, plans, situations, etc.

1.1-1 Student, one of whose parents had recently died, showed that he was able to adapt.

1.1-2 Student, new to the school, showed that he was able to adapt.

1.1-3 Student expressed a willingness to cope with a change in his social situation.

1.1-4 Student took over the teacher or leader role, or was able to act effectively when faced with an emergency.

1.2 Student, in the school setting, accepted changes demanded of him.

1.2-1 Student, in the school setting, accepted a forced change of plans or rules.

1.2-2 Student, in the school setting, accepted a change in direction, subject material, or teaching methods.

1.3 Student sought information on ways he could change in order to improve his grades, study habits, etc.

1.3-1 Student requested help in a particular subject area.

1.4 Student made changes in his study habits, classroom behavior.

1.4-1 Student showed he wanted help in a particular subject area and did the work necessary to increase or improve his knowledge or skill in this area.

1.5 Student changed a course or changed academic tracks.

1.6 Student indicated he wanted to try or did try something that was new to him.

1.6-1 Student enjoyed new products, or used new products or methods.
Goal 10/Effective

1.6-2 Student willingly accepted a suggestion and used a new or different method.

1.7 Student made a change in his project, report, planned reading material, etc., either because of a change in interest or some external reason.

1.8 Student took positive action to effect a change in an area in which he had a physical or psychological problem or handicap.

1.9 Student applied previous knowledge to a new or unfamiliar situation or problem, or used initiative and/or experimentation to come up with a solution to a problem.

1.9-1 Student saw a relationship between certain things being taught in school and other materials which he had previously seen, and brought these supplementary materials to class.

1.10 Student willingly attempted or did an unfamiliar job or task asked of him (not in his chosen career field, nor as teacher or leader).

1.11 Student indicated he had changed his attitude toward the necessity of studying a particular subject.

1.12 Student, in the school setting, requested a change in course content or approach.
Goal 10/Effective

2. STUDENT DEMONSTRATED THAT HE APPRECIATED THE NECESSITY TO PLAN FOR FUTURE EDUCATION, A CAREER, ETC., OR TO HAVE RESPONSIBLE WORK HABITS.

2.1 Student, in the school setting, expressed a desire to work ahead.

2.2 Student demonstrated he had good study habits.

2.2-1 Student worked or studied ahead in a particular subject area, or studied extra material.

2.2-2 Student prepared himself for a test.

2.2-3 Student studied in an organized and effective manner.

2.3 Student had responsible work habits, or did what was expected or required.

2.3-1 Student did his job or task well.

2.4 Student demonstrated, by investigative action, that he was planning ahead with regard to future education or training, career, etc.

2.4-1 Student made inquiries concerning future course requirements or stated a decision to take advanced or specific types of courses in the future.

2.4-2 Student learned about colleges, careers, or curricula, by attending a formal program or by investigating on his own.

2.4-3 Student asked questions about the type of preparation needed for particular jobs, careers, colleges, etc.

2.4-4 Student read books or periodicals or otherwise obtained information about his chosen or probable career field.

2.5 Student demonstrated that he had given thought to future education or training, career, etc.

2.5-1 Student had a realistic career goal in terms of job opportunities, his abilities, etc.

2.5-2 Student had a career goal.

2.6 Student demonstrated his belief that training or education is necessary in order to be prepared for the future.
2.6-3 Student stated he wanted or planned to go to college, or he wanted to keep marks up so he could have a chance to receive a scholarship.

2.6-5 Student voiced the need for continuing education throughout one's life.

2.6-6 Student tried to dissuade another student from dropping out of school.

2.7 Student was aware of, speculated about, or made inquiries about the nature of specific changes in technology, vocational patterns, social attitudes, etc.

2.8 Student placed himself in a situation, took a job, or did work to get exposure to or experience in a chosen or probable career field.

2.9 Student applied for or prepared to apply for a scholarship in a field for which he had appropriate ability or career interest.

2.10 Student took courses outside his regular school, or after school as an extra-curricular activity.

2.11 Student engaged in other activities which indicated he planned ahead.
Goal 10/Effective

3. STUDENT EDUCATED HIMSELF, KEPT INFORMED, KEPT UP-TO-DATE OR GAINED ENJOYMENT BY READING AND/OR PARTICIPATING IN ACTIVITIES.

3.1 Student indicated he read, enjoyed reading, or appreciated books.
   3.1-1 Student read book(s) or read a lot.

3.2 Student demonstrated an interest in keeping informed about the space program, by watching an event on TV, reading books or magazines, doing reports, etc.

3.3 Student demonstrated an interest in knowing about, or demonstrated he had knowledge about political or social problems and issues by reading, watching TV, etc., or by writing an article or report, or stating a viewpoint.
   3.3-1 Student participated in a political rally or campaign, or in another political or social action activity.

3.4 Student demonstrated he was interested in learning about or keeping informed about a particular subject (other than space science, political or social issues, or his chosen career field).
   3.4-1 Student did research or an experiment to find out more about a subject that interested him.
   3.4-2 Student used resource or reference material to find out more about subject(s) that interested him.
   3.4-3 Student asked questions to find out more about a subject that interested him.
   3.4-4 Student read book(s) about specific subjects or topics (other than space science).
   3.4-5 Student read periodicals or pamphlets about specific subjects or topics (other than general news or political and social issues).

3.5 Student demonstrated an interest in keeping abreast of current events (other than space or political events) by reading the newspaper, watching or listening to the news, etc.
   3.5-1 Student read the newspaper and/or "current" or news magazines.
   3.5-2 Student read the newspaper and listened to or watched the radio-TV news.
**Goal 10/Effective**

<table>
<thead>
<tr>
<th>3.5-3</th>
<th>Student read the newspaper account(s) of a specific event.</th>
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<tr>
<td>3.5-4</td>
<td>Student listened to or watched the news, or the &quot;specials&quot; on the TV on specific subjects currently in the news.</td>
</tr>
<tr>
<td>3.5-5</td>
<td>Student watched a &quot;special&quot; on the TV on a subject currently in the news and read newspaper or magazine accounts of same.</td>
</tr>
<tr>
<td>3.5-6</td>
<td>Student suggested or participated in a discussion or debate or wrote a report on a subject currently in the news.</td>
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SUMMARY OF THE AREAS OF INEFFECTIVE BEHAVIOR

Goal 10: Quality education should help every child to prepare for a world of rapid change and unforeseeable demands in which continuing education throughout his adult life should be a normal expectation.

1. STUDENT WAS UNWILLING TO CHANGE CERTAIN PATTERNS IN HIS PRESENT LIFE, OR COULD NOT ADAPT TO CHANGES THAT DIRECTLY AFFECTED HIS LIFE OR LIFE STYLE, OR TO CHANGES THAT HE WAS CALLED UPON TO MAKE.

2. STUDENT DEMONSTRATED THAT HE DID NOT APPRECIATE THE NECESSITY TO PLAN FOR FUTURE EDUCATION, A CAREER, ETC., OR TO HAVE RESPONSIBLE WORK HABITS.

0. MISCELLANEOUS.

0.1 Miscellaneous, Goal 10 Ineffective.

0.2 Miscellaneous, other than Goal 10 Ineffective.
Goal 10: Quality education should help every child to prepare for a world of rapid change and unforeseeable demands in which continuing education throughout his adult life should be a normal expectation.

CATEGORIES OF INEFFECTIVE BEHAVIOR

1. Student was unwilling to change certain patterns in his present life, or could not adapt to changes that directly affected his life or lifestyle, or to changes that he was called upon to make.

   1.1 Student showed that he was unable or unwilling to adapt to changes in demands, plans, situations, etc.

      1.1-1 Student could not adapt to the death of a member of the immediate family.

      1.1-2 Student, new to the school, showed he was not able to adjust.

      1.1-3 Student was unable to cope with a change in his social situation.

   1.2 Student, in the school setting, would not accept changes demanded of him.

      1.2-1 Student, in the school setting, would not accept a forced change of plans or rules, or was unwilling to abide by certain rules.

      1.2-2 Student, in the school or classroom setting, was unwilling to accept a change in direction, procedure, subject material, teaching methods, assignments, etc.

      1.2-3 Student, in the classroom setting, demonstrated by avoidance or by inappropriate or incorrect action that he was unable to adapt to a change in direction, subject material, teaching methods, assignment, etc.

   1.4 Student would not make a change in his study habits.

      1.4-1 Student would not take advantage of a tutoring program, individual help or summer school program (in an area directly related to improving study habits).

   1.6 Student indicated he did not want to try or would not try something that was new to him.

      1.6-1 Student would not use new products or methods, or did not enjoy using new products.
Goal 10/Ineffective

1.7 Student would not make a change in his project, report, planned reading material, etc., even though a change of interest or some external reason (other than a teacher's request) indicated that a change was necessary.

1.9 Student was unable to apply previous knowledge to a new or unfamiliar situation or problem.

1.10 Student would not attempt or do an unfamiliar job or task asked of him.

1.13 Student demonstrated he was unable to reason logically and/or was unable to accept logical evidence.
Goal 10/Ineffective

2. STUDENT DEMONSTRATED THAT HE DID NOT APPRECIATE THE NECESSITY TO PLAN FOR FUTURE EDUCATION, A CAREER, ETC., OR TO HAVE RESPONSIBLE WORK HABITS.

2.3 Student demonstrated lack of responsible work habits by not doing what was expected or required.

2.3-1 Student did not do his job or task well, or neglected his job duty.

2.3-2 Student was not prepared for class, or was not prompt.

2.3-3 Student held others or other things responsible for his not being prepared, or for not being prompt.

2.5 Student demonstrated that he had not given sufficient thought to his future education, training, or career.

2.5-1 Student could not make a decision on future courses.

2.5-2 Student's preferred course schedule in high school was not preparing him for the future.

2.5-3 Student had an unrealistic career goal in terms of job opportunities, his abilities, etc.

2.5-4 Student could state no life-style preferences or life goals, or stated that he felt incapable or unable to attain any goal.

2.6 Student indicated that he did not feel training, education, diploma, or degree, etc., was necessary, valuable, or relevant.

2.6-1 Student stated he planned to quit high school prior to graduation.

2.6-2 Student stated he did not want to or would not go to college.

2.6-4 Student indicated that post-high school education is not necessary in order to get a (good) job.

2.6-5 Student indicated a lack of interest in, enjoyment of, or reason for continuing education.

2.7 Student showed that he had an unrealistic impression of what will be necessary when one is an adult, or of certain changes that are taking place or could take place in the future (other than in job opportunities).
Goal 10/Ineffective

2.7-1  Student indicated that he saw no reason why a particular topic or subject should be studied or mastered.

2.7-2  Student indicated that he was not aware that integration of the races in the U.S. is inevitable.

2.7-3  Student indicated a lack of interest in attending summer school to fulfill graduation requirements or to improve a skill one could use throughout life.

2.11  Student showed in other ways that he had not planned ahead.
RATIONALE

Goal Ten - Area 1

STUDENT WILLINGLY CHANGED PATTERNS IN HIS PRESENT LIFE OR DEMONSTRATED HE COULD ADAPT TO CHANGES THAT AFFECT HIS LIFE OR LIFE STYLE.

Description

The current social pattern is a collage of life styles among which young people observe, experiment, and choose. The period of his life during which a student attends school and the school experience itself are a constantly uneven movement toward maturity. Many changes are demanded of the student; many opportunities exist for the student himself to initiate changes. Unforeseeable changes occur in the student's home -- in its intra-family relationships, its economic status, its location. Within the school some changes are forced demands to which the student must conform. Others are options which the student exercises such as changing a course, a project, or a plan of activity. Developmental changes occur within the student himself - a recognition of his strengths and weaknesses, an improvement of his study habits, an attempt to accomplish something not previously required of him. Drastic changes in the community affect both the home and the school, the demands which they make of the student, and his response to them.

Some changes require or elicit adjustment from one student alone rather than from all the members of a class or student body. The student may experience new demands resulting from highly personal, deeply emotional changes such as those resulting from the death of a parent. Change to a new school is a major disruption to most students, and to a child of itinerant or migrant workers it may happen several times a year. Participation in new groups or organizations may result in peer pressure to which a student must adjust.
RATIONALE

Goal Ten - Area 1

Changes in student behavior are occasioned by the traditional elements of progress through the succeeding stages of school experience, as when a child advances to a grade level at which he must begin to accept homework assignments. They are also the result of innovation, experimentation, or adaptation in curriculum, teaching methods, or changes in educational objectives. Emergency situations within the school, as well as necessary administrative changes of program or procedures require the student to adapt.

The student himself may initiate changes as they affect his placement or work within the school. This happens when the student is dissatisfied with his own performance and wishes to improve his achievement. Sometimes the student is unable to function because he lacks basic understanding of the subject matter or processes required. He recognizes this lack, and asks for assistance in acquiring the generalized skills or habits which will permit him to proceed independently to an improved competence. He may also make changes in his study habits and classroom behavior, or request study help in a particular area. The student may find it necessary to change courses or academic tracks.

Initiative in attempting new plans, methods, or experiences indicates that the student is attaining new skills or maturity levels or is assessing the alternatives of a situation. He may be able to apply previous knowledge to a new or unfamiliar situation or problem and willingly attempt an unfamiliar job asked of him.

Analysis

A readiness to accept change requires of the student a combina-
RATIONALE

Goal Ten – Area 1

ition of personal stability and flexibility. He must be able to meet challenges, to overcome discomforts, to re-order priorities and to re-arrange plans. His acceptance of change must not be unquestioning obedience or unthinking docility, it must be reasoned choice. It implies that he must be given the necessary knowledge of the basis for changes, of the inevitability of some changes, and of the advantages of others.

To make personal adjustments the student must rely upon his previously acquired knowledges and skills. He must be able to apply such knowledge to his new situation as a basis for understanding the need for action, for identifying the alternative actions available to him, and for estimating the probable results of the action which he decides to take. When he faces a dilemma which he cannot resolve himself, he needs to know the sources of help. He needs to have a wide acquaintance with many people and with as many levels of social setting as possible so that he may develop the skills necessary for social communication and adaptation.

Critical incidents which reported a student's adjustment to the death of a parent were all reported at the pre-adolescent level which may indicate that this is the level at which a student most deeply synthesizes his home and school experience, and that it is at this level that he is most dependent upon his teachers and his peer group for understanding and support during his personal experience with a family death. It is at this level that his role in a disrupted home is confused -- he is not a child dependent upon the remaining parent for enlightenment and
yet he is not an adult ready to assume the responsibilities which must now be redistributed among the remaining family members. How the student's role in the home will develop will be influenced by the student's self concept, sense of responsibility and independence. The emotional make-up of the remaining parent, the economic status of the family, pressure from other relatives, and from the community will all influence the student's readjustment. He may turn to the school for information as to why the death occurred, for opportunities to discuss his own reactions, or for help in solving personal financial problems.

To adapt to a new school a student must be able to adjust to new academic requirements including different materials, time schedules, or teaching equipment such as types of desks or lockers. He needs the ability to adjust to different personalities. He may need the courage to face prejudice or disappointment. He must be able to call upon his previous learning experiences and skills to enable him to meet the new demands upon him. He needs to learn study habits which will help him to make friends easily. He needs to anticipate a change of school with confidence rather than with undue trepidation.

When the student has the opportunity to try different roles, assume unexpected responsibilities, or act in emergencies, he is exercising his ability to meet rapid change and unexpected demands. If he is to assume responsibility effectively, he needs to have a good concept of the situation and an understanding of the leadership role. He must have the cooperation and respect of other pupils. When the student assumes the teacher's role, he may have a feeling of identity with a
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particular teacher or may plan to be a teacher, and may be experimenting with or practicing the vocation he wishes to follow. Within the context of the school situation, the demands which occur are usually of such a caliber that the student has the physical and emotional stamina required for response. As with any exercise, repeated successes encourage the student to respond confidently to the new situation. He also has the opportunity to ask for directions in the procedures which he should use to carry out the new task.

When the student must accept a change in direction, in subject matter, or teaching method, he must be flexible in his thinking, and in most instances he will need the listening skills necessary for quick responses to new oral directions. In emergency situations this becomes an essential skill. He needs social skills which will enable him to relate to new people such as substitute teachers, and social concepts which are basic to the acceptance of new materials and methods. To accept new instructional methods, he must be able to discard preconceptions of some aspects of the learning situation or the teacher-learner relationship.

When the student requests information on ways he can change in order to improve his grades and study habits, he may do so for a variety of reasons:

He may recognize the existence of personal inefficiencies or blocks which prevent his exerting his best efforts.

He may know that he lacks specific skills and understandings.

He may be setting high standards for himself.

He may be seeking grades necessary for entrance to certain
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programs of study or a class standing necessary for entrance to college or for scholarship aid.

He may be trying to meet standards set by his parents and teachers.

He may be competitive with his siblings or classmates.

He may be insecure or attention seeking.

He may request a change of track or course because of displeasure with the course itself, fear of failure, dissatisfaction with his projected educational plan, or mistakes in original planning. In this last case his course selection does not meet the requirements for the curriculum he has selected. Occasionally a student asks for a track or course change for some less valid reason - a wish to be with certain classmates or to take a class from an "easier" teacher, or to have a certain time schedule.

A request for individual help may indicate that a pupil has a single occasion when he needs help. Repeated requests may mean that the pupil is seeking a one-to-one situation, in which he feels more receptive to new ideas, or is more able to develop new patterns of response. He may have some physical inadequacy which prevents his adequate perceptions of the material presented in the classroom situation. Anything within the whole realm of learning disability may be indicated by this request. In order to act upon the advice or help which he receives the student must first be sincere in his request for help. He must be receptive to the advice or teaching which he receives. He must do the practice work necessary to attain or improve the specific skill required. He must recognize a challenge and accept it.

Assignments, projects, and reports are commonly used elements of the teaching design. As such they are intended to effect the learning of or reinforcement of knowledge, skills, understandings, or
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appreciations. The performance of such assignments is modified by the abilities, aptitudes, and attitudes of the student. The more challenging and open-ended the assignment, the more opportunity for the student to experience change.

For a student to take action toward the resolution of a physical or psychological problem, he must first recognize that the problem exists. He must then be able to accept the idea that he needs to change and he needs to accept himself sufficiently that he has the courage and self-reliance to try to make the change. He is unlikely to take positive action while he projects the responsibility for his problem to other people or circumstances. An emotional problem caused by social disadvantage may require changes in the whole life-style of the student.

Measurement of the acceptance of changes in school plans or regulations is usually a discrepancy measurement - the degree to which a student does not comply, or the number of students who do not comply with the new plans or regulations. Acceptance or compliance with a "forced" change of plans or rules does not imply understanding of them -- only conformity to the new plan or the succeeding rules. The presence or absence of conforming behavior is somewhat dependent upon the student's self concept, upon the nature of peer group pressure, and upon the community image of the school. It is far more difficult to assess the student's philosophical or emotional acceptance of them. Parents are sometimes a source for this assessment.

Application

The school needs to be in close touch with developments in
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society which affect the present and prospective life styles of its students. It must give each student knowledge which will serve him as a basis for forming judgments concerning the life styles he observes. At times the school must assist a student through an experience which affects his pattern of living. It is not the function of the schools to impose a moral or social code upon a student, but it should give him a thorough understanding on inter-group and inter-personal relationships and responsibilities. It can give him opportunities to exercise a choice and to evaluate the results of his choice to himself and to others. It can encourage him to be adventurous. It can provide a micro-society within which students may experiment with forms of social structure and government. It can be receptive to their thoughts and ideas and to their requests for change. Much of this can be accomplished by an aware faculty able to participate in life surrounding the students, to understand the conflicts in ideas which are presented to them, to appreciate the attraction of the bizarre and flamboyant, to anticipate their fears.

Teachers, administrators, counselors, and school social workers should be aware of changes in the structure of a student's family. The nature of the change and of the student to whom it happens must be considered in terms of the student's response to stress, his maturity level, and the consequent effect upon his education. They should offer the student understanding and support. Homeroom teachers in particular can assist other students in understanding what has happened, and help them to give the affected student constructive support rather than maudlin sentimentality. Younger children should be prevented from teasing
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a little child whose parent has died. When necessary, special tutoring, or other forms of individualized instruction may be necessary to enable the student to maintain his place in school or to meet other demands of the new situation. When the student has shown that he can adapt to demands of the new situation. When the student has shown that he can adapt to demands upon him, or that he can and will meet a challenge, he should receive some recognition, praise, or other reinforcement. If the student does not readjust easily, the school should be prepared to offer counseling to the student. In the case of an older student, the school should also make every attempt within the range of its influence to insure that no financial or family problem develops which will force the student to drop out of school.

The normal exigencies of the school system not only provide, but demand limitless practice of the ability to adjust to change. If such changes are to occur with a maximum of acceptance by students, the school and its personnel must eliminate as far as possible all aspects of rigidity. This extends even to phrasing such as "We don't do that in our school" or "In our class we always do it this way". Rules, procedures, and content must, of necessity, be formalized but whenever possible students should have a voice in changes to be made. "Forced" changes should not be made unless there is a demonstrable need for them. The nature of the response to forced change and the direction of the response will depend upon the quality of the action taken by school personnel in initiating and implementing the change. If disagreement exists, it should be recognized, and if possible, dispelled. Except in
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emergency situations, sufficient time for discussion and exploration of alternatives should be allowed before the change is implemented.

Certain formal practice of adjustment to new directions occurs in fire drills and other practice of safety plans for emergencies. The introduction of new materials, new subjects in the curriculum, and new teaching methods all afford extensive opportunities for students to develop strength in adaptation. If teachers analyze new materials and techniques to identify areas or points at which change will be required of the student and the particular form which such change should take, they will be able to provide the student with specific practice and will be able to evaluate his response to it. Use of substitute teachers, although it is usually of an unplanned emergency nature, can also be a situation for planned evaluation of student response to a new situation.

When a student must change schools, the more complete his acceptance into the new school is, the easier the transition will be. He should be quickly supplied with the necessary schedules, texts, equipment, and information. He should be given opportunities to participate in on-going activities. The school should know the reason for his change of school and the probable length of his anticipated stay. In areas where large numbers of migrant children enter and leave the schools, some special provisions may be made for them. When a student plans to leave it may be helpful to give him whatever information is available concerning the situation to which he will move. He should be helped to understand that having many experiences will help him to understand many people and many viewpoints.
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The school can make available to the student a wide variety of opportunities to form new group associations through providing curricular and extracurricular group activities, clubs, and other organized activities. Community sponsored groups may be permitted to use school facilities. Parents and students should be informed of the opportunities available for students to become members of organized groups and of the sponsorship of such groups. Older students should be given information on community agencies which sponsor youth service clubs. Students should be encouraged to participate in group activities but they should also be taught how to assess the objectives of a group, to investigate its origin and sponsorship, and to determine for themselves the values to be derived from participation in it.

There should be many opportunities for students to work and plan together, so that each student may learn to adjust to the needs and plans of others and to develop his leadership abilities. Pupils should be encouraged to assist in the management of the school through service as school patrols, teacher aides, office aides, etc. It is sometimes feasible to set a situation in which students may demonstrate their ability to assume responsibility—e.g., business education teachers sometimes give pupils practice in working without supervision to prepare them for working in small offices where there is only intermittent supervision. However, in permitting students to assume responsibility certain cautions must be observed:

1. Students should not be permitted to administer first aid to the injured or to give any sort of medicine to any pupil.
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2. Students should not be permitted to assume responsibility when a school employee is legally required to be present.

3. Pupils should not be permitted to attempt work which is beyond their physical capacity.

4. All safety requirements should be carefully observed in any responsibility which students assume.

When the student seeks help in improving his grades, the teacher and counselor should be prepared to help him to assess the reasons for his dissatisfaction. If he is already working to capacity, they should help him to explore his motivation for the request. If parent pressure is presenting a demand which the student cannot meet, the teacher or counselor should help the parent to understand what the students' abilities and limits seem to be. If the student is setting an unrealistic goal for himself, if he is over-competitive, or simply seeking attention, he should be guided toward a more productive way of satisfying his ambitions.

Rapid changes in the "world of work" require rapid changes in the preparation which schools give to students. The school should constantly re-evaluate its curricula and its requirements to ascertain their relevance to the demands which professions and occupations will place upon students. It is not probable that the school will completely prepare a student for any occupation. It should therefore give him the attitude and the knowledge that he will need to frequently re-evaluate his competencies and to upgrade them. When a student requests a change of program or a course change, he should be helped to determine whether a change is in his best interests and if so, what the change should be. A student should not be permitted to change courses or tracks capriciously,
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nor should he change before he has made a reasonable effort at accomplishment. Nor should he be prevented from acquiring salable skills because a curriculum places undue emphasis on academic courses. The curriculum regulations should be flexible enough that the teacher and counselor can plan a program which truly meets the present and projected needs of the student and which permits maximum opportunity for readjustments of courses. The original assignment of pupils to tracks and courses should be done carefully in terms of the student's ambitions and abilities, of the availability of instruction in the fields he wishes to pursue, and after consultation with the pupil and his parents. Assignments should be made in terms of their total contribution to the student's development. Whenever possible the student should have the opportunity to use the assignment not only to serve its stated purpose in subject mastery, but also to use it to develop his own unique talents and interests. There should be abundant resource materials from which he may draw information and inspiration. The student should be encouraged to apply new information to his previous knowledge and to seek new uses for it. He should be encouraged to regard assignments not as regurgitations of pre-determined material but as individual contributions to group learning.

Pre-school and primary grade screening of children by school doctors, dentists, nurses, and psychologists should identify problems of speech, vision, hearing, motor coordination, physical disease, gross brain damage, and low intelligence. Assistance to the child, either through direct school help such as speech classes, large type reading materials,
etc., or through referrals to community facilities such as cardiac clinics should help the student to make early adjustments to his problems so that he may receive the maximum profit from his school experience. When problems which cannot be identified this early become apparent or develop later in his school experience, the counselors, school social workers, and special education facilities should give him help, depending on the nature of the problem. The teacher, parents, and fellow students are in the best position to observe the quality of his adjustment and to be aware of deteriorations or improvements in it. Educational programs aimed at reducing social disadvantage, such as Head Start and Upward Bound should ideally be extended to all who can profit by them. A very important factor is to give the student vocational guidance in terms of the problem or handicap. However, the handicap should be regarded as one factor influencing his vocational choice, not as the specific determiner of it.

In summary, every student should be encouraged to attack new problems and to find his own solutions for them. He should be given many opportunities to voluntarily apply those skills which he has learned. He should be permitted to experiment with unconventional materials or unusual uses of standard materials. He should be encouraged to analyze both his problems and his solutions to them to determine why an attempted solution is or is not effective. He should be urged to be realistic in his assessments of his efforts so that he does not acquire such attitudes as "I can do anything", or "It is good just because I did it".

For further suggestions see also "Teacher Strategies" section of this booklet, Areas: 1, 2, 3, 4 and 5.
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Goal Ten - Area 2

STUDENT DEMONSTRATED THAT HE APPRECIATES THE NECESSITY TO PLAN FOR FUTURE EDUCATION, A CAREER, ETC., OR TO HAVE RESPONSIBLE WORK HABITS.

Description

This area includes incidents of student planning and anticipation ranging from the fifth grade student who asks a sixth grade pupil what "next year" will be like to the high school senior who applies for a college scholarship or takes a part time job in a field that he wishes to enter. Students ask teachers for information as to what future assignments will be, and consult source materials so that they will be generally more informed about the subjects they are studying. Students demonstrate good study habits by working ahead, preparing for tests, or studying in an organized and effective manner. They demonstrate good work habits in school related activities such as science fairs. At the junior and senior high school levels students begin to investigate the requirements of specific courses and to make decisions about which courses to take, and about whether or not they should take advanced courses. They ask questions about the types of preparation needed for particular jobs; they acquire such information by reading books and periodicals, sending for publications, or by attending formal meetings such as career conferences or conferences with college representatives. Students demonstrate that they have given thought to their own educational planning by selecting advanced courses in particular areas, by extra hard study, by developing particular skills which will contribute to their ability to achieve a career goal, and through scanning their own abilities to make sure that a career goal is realistic. They observe and reinforce each other in these activities. Circumstances under which
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students demonstrate their belief in the necessity of education vary from those in which a student assumes as a matter of course that he will have a college education to those in which the student must defend his desire to continue in school against the jeers of his dropout peers.

Students also investigate the nature of specific changes in technology, in vocational patterns and in social attitudes. At fifth grade level students are most aware of the changes in mechanical invention and scientific discovery. They are intrigued by helicopters and ultra-fast trains; they are fascinated by developments in chemistry and speculate on the future of oceanography. At eighth grade some students show some apprehension of mechanical change. As they begin to study industrial arts, they become aware of the relationship between technological change and job availability. They also begin to show some awareness of social change. At eleventh grade level apprehension has been replaced with constructive anticipation of new careers growing out of new technologies and new opportunities arising from changed social attitudes. Students also begin to see relationships between technology, social attitudes, and personal value systems.

High school students who have well developed career goals in which they have intense interest express this interest either by looking for paid jobs in the field, or by asking to be allowed to observe others doing the job, or by offering to "help out" without pay. Some who do not yet have a definite career choice use summer vacations to work either for pay or as volunteers in jobs where they can have experience working with other people as in mental hospitals or child care facilities. They also
seek extra preparation. In particular, they take courses in computer classes in colleges in subjects in which they want extra preparation. Some of them seek scholarships for extra instruction in fields in which they have unusual talent.

Analysis

When a student expresses a desire to work ahead he implies that he is confident of his mastery of the material to date, that he has a desire for independent achievement, that he is thoroughly interested in the subject, and that he wants to maintain his level of mastery. When he works independently he is also demonstrating his interest in school and learning. It must be recognized that the request for advance assignments or the independent study may be motivated by a competitive spirit - a desire to get ahead of the other students, to make the best grade on a test, or to impress the teacher. Such competitive activity can not be considered detrimental to the student's development since it is implicitly fostered by the grading system and is sometimes encouraged by teachers and educators. The motivation for the request may be assessed by the circumstances under which the request occurs - whether the student budgets his study time so that he makes a habit of studying ahead or whether it is a unique request sparked by an unusual attraction to a specific educational experience.

It is important to put as much emphasis on the process of learning as on the attainment of factual knowledge. Students should learn, understand, and practice the personal learning skills such as listening skills and reading skills which are applicable in most learning situations.
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They need also to develop mental skills of judgment and the ordering of priorities, and emotional qualities of steadiness, determination, and frustration tolerance. The effectiveness of a student's study habits may be observed informally by the way he does assignments and by his test grades. His reading, listening, and other learned study skills, such as use of the dictionary, use of maps, and ability to analyze materials can be formally measured by the use of objective, diagnostic tests.

The total school experience encompasses far more than study, therefore the student's general work habits strongly influence his personal adjustment to the school system. The quality of the work habits of the student body in general are an affective element in the school climate. If one accepts the philosophy that education is not a preparation for living, it is an experience in living, then one accepts school as the work program for the first two decades of an individual's life. The opportunity to extend his interests and thereby to assume responsibilities for carrying out his own projects or for assuming or sharing group responsibilities constitutes an essential developmental experience. How the individual assumes and carries out his responsibilities is evaluated largely by subjective judgments of those who observe him.

Planning for a career becomes realistic on the high school level, even though the percentage of those who follow the career aspirations expressed at this time is relatively small. The closer the student is to his assumption of the wage earner role, the more realistic his planning needs to be. Actual experience in a job which the student hopes to make his career, or in a related type of job or service gives the student the
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opportunity to determine to at least some extent:

1. If he has the mental capacity required for success.
2. If he has adequate physical strength.
3. If he is emotionally suited to the job.
4. If he has the ability or the incentive to pursue whatever further training may be necessary.
5. If he has a realistic understanding of what the job is, what its requirements are and whether he will be able to secure long term satisfactions from it.

Application

The attainment of habits of self-directed, independent study should be strongly encouraged. Class assignments can be sufficiently individualized that a pupil can satisfy his desire for more study without undue competition with his fellow students. School resources for study and practice might well be made available to students in the evenings and on weekends, including instructional materials centers, school libraries, laboratories, music practice and other practice areas. In opening facilities to pupils at other than normal school hours it is imperative that adequate, informed supervision be supplied in such areas as laboratories, gymnasium, and swimming pools. Students should also be encouraged to do independent study in public and specialized libraries, museums, art galleries and other centers where they may acquire information to extend their subject interests. When the student expresses a desire to "work ahead" the decision on whether to encourage his vertical achievement or to provide him with lateral enrichment materials should be made in terms of the available curriculum materials and offerings - e.g., if completion of the required course work in English will permit
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him to move ahead to the next course and eventually to early admission to college, is this procedure preferable to giving him more creative writing or literature or drama experience, or is it not?

Students not only need to be taught study methods, they also need to realize that that is what they are being taught - that such skills as outlining, summarizing, and note taking are transferable to their own independent study. Younger children should have the opportunity to apply independently to materials of their own choice the learning skills which they have practiced with planned, controlled materials such as workbooks or programmed learning materials. All students should have access to all available mechanical study aids.

Students should be encouraged to review their own study methods and evaluate their own skills. Formal learning-counseling techniques and programs seem to be most effective at junior high school levels, at which time the student with poor study habits seems to be most responsive to the guidance of the learning counselor and the support of the learning-counseling group. In a case where the student seems to have adequate intelligence and a desire to improve and is still unable to do so, an effort should be made to determine if emotional or nutritional factors or a physical disability interferes with his effort to study effectively.

Students should not only be given opportunities for decision making within the areas of course selection, choice of research, etc., they should also have opportunities to assume responsibilities for larger, school related projects. Presupposing that the school philosophically approves participation in fairs and contests, rather than making such
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participation a class assignment for each student, he might well be allowed to make the decision on participation. If he so chooses then he should assume the major responsibility, if not the total responsibility for the work to be done, for being on time, for arranging transport of materials, and for any other details which give him the opportunity to practice responsible behaviors. Many such extracurricular opportunities exist - participation on athletic teams, in band, orchestra, chorus, debate teams and similar activities. At the elementary level pupils are often required to be responsible for their part in school programs or demonstrations, to act as guides at parent meetings, to answer the telephone, or to give other voluntary assistance requiring the ability to work responsibly and steadily.

Careful study of each student and maintenance of a profile of his abilities and interests should be basic to curriculum planning for him. Ideally, within a comprehensive high school it would be possible to schedule each pupil to a program which would meet both his needs and his interests. However, because of the wide variety of student interests, this becomes impractical. Students should therefore be aided in locating courses or programs which will supply the information they want and in participating in those programs. When talented students lack the opportunity or money for further study in the area of their talent, the school, through the Parent-Teacher Association or through other organized community groups, might well take the initiative in seeking funds or scholarships to enable them to study. An alternative is to provide funds to bring an outstanding instructor in art, music, dance, etc., to the
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School to teach a summer course, or a mini-course, or to give other help to exceptionally talented pupils. Courses in conjunction with colleges, museums, theaters, orchestras give students valuable experiences.

The school, particularly through its counseling function can capitalize on the student's interest in his own career by giving him opportunities to assess his own abilities, to investigate possible occupations, to plan his curriculum, to discuss his ambitions with teachers and counselors. The school, through its occupational and vocational departments and its job placement facilities can help pupils to "try out" the occupational areas in which they express interest. For practical reasons, pupils will be attracted to those part-time jobs which offer the most money, or the most attractive working conditions. Yet, the high school student who plans a medical career might gain the most from spending a summer at a hospital job, just as the business education major will probably gain more useful experience as a part-time worker in a bank than as a recreation leader. Such advice must be tempered with the realization that it is also good for a young person to have a wide variety of experiences so that he has some opportunity to try all of his talents and interests. If he recognizes the breadth and range of his own abilities he will be more adaptable should he later be faced with a forced change of vocation. He will also feel able to participate in a wider range of vocational activities making his life a fuller, richer experience. Of necessity, the part-time job experiences that a student can have will be limited by those jobs available in the locality.

In order that pupils have a positive attitude toward continuing
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education throughout life, they should have the opportunity to observe
such education in action. Local school systems should provide some ex-
tended education for adults. Pupils should be given information about
training programs which are conducted in industry, about community col-
leges, extension education conducted by colleges and by privately owned
business schools, or other training or cultural programs.

For further suggestions see also "Teacher Strategies" section
of this booklet, Areas: 1, 2, 4 and 5.
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Goal Ten - Area 3

STUDENT EDUCATED HIMSELF, KEPT INFORMED, KEPT UP-TO-DATE OR GAINED ENJOYMENT BY READING AND/OR PARTICIPATING IN ACTIVITIES.

Description

In the student's individual quest for self-education, reading is the basic tool which he uses. The critical incidents which were reported seem to indicate different motivations for reading at each of the age grade levels which were surveyed. Fifth grade pupils read eagerly for the sheer joy of reading and of experiencing contact with new books. They are excited by fresh, well illustrated books, and resentful of damage to them. In general, they read widely, sampling what is available. However, some of them read within a hobby area and need to be guided to other books. Slower learning children respond to new, attractive books, and for some of them books with high interest levels become the key to increased reading ability and better school participation. At the eighth grade level student reading is likely to have an immediate purpose. Students read factual material to be ahead in a subject area or to get better grades. They have begun to budget their reading, committing themselves to read certain numbers of books within certain time periods. By eleventh grade, students realize that reading provides them with vicarious experience and that through reading they can broaden their knowledge of other peoples, places, and times far beyond what their own experience provides.

Students at all levels expressed intense interest in the space program, particularly in the moon landings. This interest was expressed not only through reading books and periodicals, buying books, or acquiring free publications, but also by watching television coverage of space
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flights, buying or building lunar modules and telescopes, making charts, collecting pictures and news clippings, joining science clubs, attending seminars, doing research, and planning trips to Cape Kennedy. Students recognize the scientific developments necessary for the accomplishment of space flights, the effect of space flights on future types of transportation, and the possibility of social, economic, or political change which may result from changed spatial concepts.

Students are interested in the orderly process of change as it occurs in the political system. They participate in local, municipal, state, and national elections by reading about candidates and issues, watching television coverage of campaigns and elections, attending rallies, and sometimes by volunteer work in campaigns. They experience the democratic process within the school situation by circulating petitions on school matters and by participating in school elections. Students extend their knowledge of forms of government through voluntary reading of political science and foreign relations materials. They become aware of national problems involving discrimination and civil rights. They show increasing interest in social problems resulting from ecological problems. They express their views through discussion and debate and through organized efforts such as protest marches.

The largest number of incidents reported in this area indicates that students are able to apply their learning skills to securing information in whatever fields interest them intensely. They do research or experiment to find out more about a subject by using resource or reference materials, asking questions, and reading books, periodicals, and
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pamphlets. Their interests range from the fifth grader who goes to the library to find out how to care for a new puppy to the eleventh grader who does research on modern acting in the Broadway theater.

Comments contained in the incident reports indicate that students consider awareness of news events and trends to be a very essential part of their preparation for an effective adult life. They read daily newspapers, weekly news magazines, and news publications which are especially intended for students. They listen to radio newscasts and watch television news broadcasts and news specials. They follow these with student discussions.

Analysis

To be able to educate themselves, students need to have an attitude of inquiry. They need the ability to think critically, to identify problems, to differentiate between fact and fiction. If they are to use resource materials effectively they need research skills and the ability to organize ideas and materials. They need standards to measure the validity of political actions, the urgency of social problems, and the reliability of leaders. They need sufficient judgment and foresight so that they may become political and social activists without being the victims of misleading propaganda.

Application

Good instruction in reading and in library skills is essential to a student's fullest enjoyment of his reading experience. He should have the opportunity to read widely and the facilities for personal research. Without detailing all the standards for school libraries and
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instructional materials centers, it can be briefly stated that a well equipped school will have a variety of books and other materials in a wide range of difficulty levels and enough expert librarians to give the students help and direction in their reading. Books should be available in the classroom as well as in the library. Pupils should have both the opportunity to enjoy the beauty of well printed and well illustrated books, and the opportunity to buy inexpensive books which can be read and discarded.

Interest in the space program gives increased purpose to the mathematics and science areas of the curriculum because of their immediate use in space developments. From social studies and literature students should realize how much man has already learned and to what extent he has already conquered his environment. As space developments occur, the school can be of immediate service to the student by making available to him through the school library and the resource center current information on spin-off knowledge and products of the space program. The counseling service can give him information on new types of jobs which the space program makes available to him, and information on where and how he can secure the necessary training for such jobs. As the movement into space continues it is probable that there will need to be revision of course content and of curriculum to accommodate the knowledge provided, and to meet the changing requirements for the adequate preparation of engineers and scientists, and for the increasing number of paraprofessional jobs which seem likely to emerge.

As the voting age is lowered to eighteen, the school has an
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increased responsibility to prepare the student for effective participation in the political aspect of his life. In certain areas, students in grades 7 to 12 participate in mock elections in which they vote for the same candidates and on the same issues as the general electorate. Pupils over eighteen are permitted to vote in Model Cities Program elections. (In this program young people are permitted to run for and hold office at age 21.) Among the other school activities which foster student political experience and interest are trips to the state and national capitols, including opportunities to watch legislative bodies in session, to meetings of city councils or of township or county commissioners, or to school board meetings. Younger pupils can have opportunities to practice the democratic process through the selection of class officers, student council members, or the selection of other leaders. They can also make decisions through voting by members of the class or group.

Students' awareness of social problems is relative to their own environment and experience. Their understanding can be increased by opportunities for discussion of what they read and observe and by school-provided opportunities to hear competent speakers on the different aspects of current problems. Economic education can begin in the kindergarten and continue throughout the school years. Some experimental primary programs use a "token economy" giving the pupil the opportunity to receive tokens for completed assignments. He then may use these tokens to "purchase" privileges such as the opportunity to play with certain toys. Such concepts can be developed vertically until the senior high school student is ready for a full course on the nature of the
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Goal Ten - Area 3

American economy, the changes inherent in its operation and their relationship to social change.

For further suggestions see also "Teacher Strategies" section of this booklet, Areas: 1, 2 and 3.
SUMMARY OF TEACHER STRATEGIES

Goal Ten

1. Teacher helped a student accept changes that impinge upon him directly.
2. Teacher made a student aware of the changing world.
3. Teacher tried to prepare a student for living in a changing world.
4. Teacher aided a student in making educational and career decisions.
5. Teacher aided a student who lacked self-confidence, who had learning difficulties, or who was a behavior problem.
TEACHER STRATEGIES

Goal Ten

1. TEACHER HELPED A STUDENT ACCEPT CHANGES THAT IMPINGE UPON HIM DIRECTLY.

1.1 Teacher discussed, pointed out, or taught about the inevitability of change and the importance of dealing with change appropriately.

1.2 Teacher gave a student reasons for a change in plans or helped him become aware of changes.

1.3 Teacher discussed with a student or with the class what was expected to occur, or what the student would find in an expected new setting or situation.

1.4 Teacher discussed or pointed out the potential advantage of an expected new setting or situation, or had class discuss similar changes they had made.

1.5 Teacher talked with a student, in a positive way, about the new responsibilities involved in a change he would have to make.

1.6 Teacher arranged matters so that a student could make or accept a required change gradually, or made extra effort to provide student with a feeling of security.

1.7 Teacher had a student become involved in doing things, getting organized, etc., related to a change or prospective change, or set up an organized procedure for a student to follow during a time of change.

1.8 Teacher helped a student make plans which could accommodate an existing uncertain situation or suggested an alternative arrangement.

1.9 Teacher talked to student about the death or illness of a family member to make it easier to accept, or tried to make death, in general, easier to accept.

2. TEACHER MADE A STUDENT AWARE OF THE CHANGING WORLD.

2.1 Teacher tried to make a student more aware of the world, of his role in it, of his responsibilities for improving it or for keeping it from worsening.

2.2 Teacher encouraged a student to do research on how a particular field is changing.

2.3 Teacher helped to make a student aware of how our knowledge or world is changing by having him compare materials from sources published at different points in time.
TEACHER STRATEGIES

Goal Ten

2.4 Teacher pointed out certain implications of progress in communication, travel, etc.

2.5 Teacher tried to change a student's negative opinion of something new or current by discussing it in class or by having student do research, or tried to point out that history often repeats itself.

2.6 Teacher exposed a student to a new field or new area within an existing field, or new machines.

2.7 Teacher stressed learning or awareness in a subject area, rather than memorising particular facts.

2.8 Teacher taught students certain things which they would need as adults.

3. TEACHER TRIED TO PREPARE A STUDENT FOR LIVING IN A CHANGING WORLD.

3.1 Teacher allowed or arranged for interaction among students, or demonstrated their interdependence, the need for respecting each other.

3.2 Teacher made an effort to see that students were exposed to change in conditions, demands, plans, etc.

3.3 Teacher was flexible in what goes on in the classroom, including spending additional time on things of interest to the students.

3.4 Teacher tried to encourage students to think for themselves, to make decisions rationally.

3.5 Teacher tried to encourage students to read.

3.6 Teacher encouraged a student in his talent, hobby, etc.

4. TEACHER AIDED A STUDENT IN MAKING EDUCATIONAL AND CAREER DECISIONS.

4.1 Teacher made student aware of the need for education in general or for continuing education and learning throughout one's life.

4.2 Teacher discussed, made career material available, or had students do research on job opportunities, careers, etc.

4.3 Teacher encouraged a student to enter a particular field, take a particular job, take a certain course, etc.

4.4 Teacher discussed alternatives to a student's career choice.
TEACHER STRATEGIES

Goal Ten

4.5 Teacher, in dealing with a student's negative attitude toward a particular course or different approach to a course, pointed out the advantages or pointed out how it would be useful in future education or work.

4.6 Teacher encouraged a student to follow an academic or college preparatory course or to take courses which would present a challenge.

4.7 Teacher encouraged a student to go to college.

4.8 Teacher encouraged a student to apply or work for a scholarship.

5. Teacher aided a student who lacked self-confidence, who had learning difficulties, or who was a behavior problem.

5.1 Teacher was supportive to a student.

5.2 Teacher, when a student lacked self-confidence, encouraged him.

5.3 Teacher, when a student was afraid or lacked confidence, gave him a task, a position of responsibility, etc.

5.4 Teacher assured or convinced a student he could succeed in a particular endeavor.

5.5 Teacher tried to calm an upset student or tried to aid him in learning to control his emotions or to lessen his emotional outbursts.

5.6 Teacher made a student aware of certain harsh realities of life.

5.7 Teacher demonstrated to a student that improvement was necessary in his academic work and work habits.

5.8 Teacher gave additional help to a student.

5.9 Teacher dealt with a student who was a behavior problem by making it clear what behavior was or was not appropriate and permitted.
BOOKLET 10-A
NEEDS ASSESSMENT

QUALITY EDUCATION PROGRAM STUDY

PREPARATION FOR A CHANGING WORLD

PENNSYLVANIA GOAL TEN

AN ESEA TITLE III PROJECT

COORDINATED AND DIRECTED BY:
Office of the County Superintendent
Bucks County Public Schools
Division of Curriculum and Instruction

IN COOPERATION WITH:
The Pennsylvania Department of Education

JUNE 1971
QUALITY EDUCATION
PROGRAM STUDY

PREPARATION
FOR A
CHANGING
WORLD

PENNSYLVANIA
GOAL TEN

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The Pennsylvania Department of Education

JUNE 1971
ACKNOWLEDGEMENTS

The contributions of the following persons and agencies in developing the materials contained in the twenty-three Q.E.P.S. booklets is hereby acknowledged with utmost gratitude:

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Ronald E. Lesher, Coordinator of Research
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PUBLIC, PRIVATE, AND PAROCHIAL SCHOOLS

Teachers, administrators, students, and parents in public, private, and parochial schools in the Commonwealth generally, and specifically the pilot areas of Allegheny, Beaver, Bucks, Erie, Luzerne and Westmoreland Counties and the Cities of Erie and Pittsburgh.
The work presented or reported herein was performed pursuant to a Grant from the U.S. Office of Education, Department of Health, Education, and Welfare. However, the opinions expressed here do not necessarily reflect the position or policy of the U.S. Office of Education, and no official endorsement by the U.S. Office of Education should be inferred.
PREFACE

The Bucks County Schools have for some time been committed to improving the quality of the educational offerings for its youth. Characteristic of that commitment was the manner in which officials of the Pennsylvania Department of Education, Bucks County Public Schools, Luzerne County Public Schools, Allegheny County Public Schools, Penn-Trafford School District, Pittsburgh School District, and Erie School District joined together in 1966 to draft the proposal for the Quality Education Program Study (QEPS). Conceived as a complement to Pennsylvania's pioneering efforts to assess the quality of its schools, the study was designed to define and clarify the Ten Goals of Quality Education adopted by the State Board of Education in 1965.

The following booklet is a part of the story of how Q.E.P.S. went about its ambitious task, and the results of that effort. We trust this statement of the behavioral definitions for Pennsylvania's Ten Goals of Quality Education will serve as a guide for the evaluation and improvement of teaching and learning in the schools of the Commonwealth.

Dr. George E. Raab
County Superintendent
Bucks County Public Schools
INTRODUCTION

In recent years there has been an increased interest in goal definition in education. Most efforts toward the establishment and definition of goals seem to take the form of generalizations or descriptive statements. Little, if any, data is available concerning empirical methods for defining educational goals.

Until recently, the "Goals for Quality Education" were not defined in a coherent form. An analysis of this problem revealed that most stated goals have little exact meaning for the practicing educator. Frequently, goals are stated in such general terms that any educator could convince himself that these goals are the purpose that guide his program. Goals are statements of general educational intents. While it is not absolutely necessary for goals to be stated in performance terms, the more clearly these statements are described, the more readily we can develop valid indicators of pupil behavior.

The first step in constructing an instructional program centers upon the need for a set of objectives. An objective refers to the performance or change in behavior a pupil is to exhibit upon completion of instruction. Therefore, meaningful objectives should relate to the "Goals for Quality Education". If one is "to measure objectively the adequacy and efficiency" of educational programs, these objectives must be described in terms of not what the schools do, but in what children do. One must itemize the kinds of behavior that add up to the goals for quality education if we are ever to know how children progress toward the goals or how efficient an educational program may be in furthering such
progress. Specifying goals in this way poses practical problems.\(^1\)

The formulation and adoption of Pennsylvania's Goals of Quality Education represents a major step toward the definition of the State's educational intents, making possible an assessment of its efforts toward the fulfillment of those intents. In an effort to further increase the utility of the goals to the practitioner and evaluator, the Quality Education Program Study was proposed to review, define, and clarify the Ten Goals. Funded in 1968 under E.S.E.A. Title III, Q.E.P.S. made a unique departure from the usual "armchair philosophy" or logical approach to goal definition by deciding to employ the Critical Incident Technique. This technique was used to collect empirical data to define the goals.

The QEPS staff collected critical incident data from teachers, students, and parents from various urban, suburban, and rural areas throughout the State. These data included both student behaviors indicative of achievement of the Ten Goals and teacher behaviors effective in helping students achieve these Goals.

The resulting descriptions or definitions for each of the Ten Goals include: (1) Student Behaviors, (2) Rationales or narrative explanations, and (3) Teacher Strategies. Also, for each Goal QEPS has developed needs assessment instruments to provide the practitioner with a mechanism to systematically gather information to assess its needs and assign priorities to those needs.

It is hoped that the resulting products of three years of intensive work devoted to defining Pennsylvania's Ten Goals of Quality Education will provide various segments of the educational community with information and the means to continue to improve the quality of education for the students of Pennsylvania.

Raymond Bernabei
Assistant Superintendent
Bucks County Schools

Donald L. Wright
Project Director, Q.E.P.S.
The following is a listing and brief description of the reports produced by the Quality Education Program Study:

**Booklet A**
- **Project Description**
  - A description of the project including a background and overview and a detailed report of procedures used to collect, handle, and analyze the data.
  - Includes an appendices.

**Booklet B**
- **General Needs Assessment Instructions**

**Booklet C**
- **Characteristics of Incidents and Their Reporters**
  - Gives a tabulation of various characteristics of reporters for each category and sub-category of student behavior.

Goals One through Ten each have two reports. The first is a **Description** of the goals, containing three basic components: (1) the categories of student behavior, (2) rationales for the areas of effective student behavior, and (3) related teacher strategies. The second report is related to the **Needs Assessment** of that goal and contains: (1) Instructions, (2) the general needs assessment instrument for that goal, and (3) an analysis of instruments related to that goal. The booklets for the Ten Goals are:

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NEEDS ASSESSMENT INSTRUMENTS

General
The general needs assessment instrument is comprised of sixty-three (63) area behavioral statements which encompass all of the Ten Goals of Quality Education. These area statements capsize the various behaviors of the category scheme derived from student behaviors reported by teachers, parents and students.

Individual
The individual needs assessment instrument is a compilation of the behavior statements taken from the category scheme. These phrases or statements have been edited to accommodate their usage by elementary age children. (The individual needs assessment will be found for the appropriate goal in booklets 1A through 10A).

Test Instrument
The test instruments are a compilation of available tests relating to the Ten Goals of Quality Education. (The test instruments will be found for the appropriate goal in booklets 1A through 10A).
PURPOSE OF NEEDS ASSESSMENT INSTRUMENTS

General
The general needs assessment instrument can provide the means for a school district to assess its needs relative to the Ten Goals of Quality Education. The need for such assessment may be generated as a result of the Pennsylvania State Quality Assessment Program, or a self-initiated need to identify strengths of the educational program or to identify areas in which greater concentration may be deemed advisable. This instrument could also serve as a medium to acquaint constituents (parents and students) with the Goals of Quality Education.

Individual
The individual needs assessment instrument is designed primarily for student use, under the direction of the teacher. The purpose would be the individual student assessment of his behavior relating to the specific behavioral categories of one or more of the Goals of Education.
HOW TO USE THE GENERAL NEEDS ASSESSMENT INSTRUMENTS

This instrument is designed for parent, student, teacher and administrative use, or any combination of these.

The instrument included in this booklet has a rating scale from "most important" through "least important" with accompanying numerals five (5) through one (1). For illustrative purposes, let us assume a school district would request a community group to identify (in their opinion) the most important things the school is or should be accomplishing.

The group would be instructed to read the statement in bold print and the clarifying material below. They should then determine the importance of the area by placing a check above the number representing the priority they consider appropriate in that area. Tabulation would consist merely of adding the total scores for each area. The areas having the highest total score would reflect the group's priority relating to the school program.

Another approach for the use of this instrument would be to transcribe each statement and explanation on separate cards. This would allow the user to sort the items into priority stacks. Five envelopes could be provided and labeled "most important" through "least important".

There are some advantages to using cards. If the school district would utilize the instrument with several groups, or more than once with one group; the cards can be used and reused since no pencil checking is involved. A "free sort" would
simply require the placing of the cards in the appropriately labeled envelope and the tabulation would be the same as the check list tabulation. This "free sort" method might be desirable to compare priority ratings of different groups.

If a district desires, it can structure the sorting process by a "forced sort". The "forced sort" could require equal numbers of cards in each priority envelope or specify a number not to be exceeded in the "most important" and "least important" envelopes and let the others fall somewhere in the three remaining categories of "important", "average importance" or "marginal importance". The "forced sort" would force a few, manageable, top priority items for the school district to determine a course of action to pursue.

School districts may want to compare goal priorities of college oriented parents vs. another group or the school staff itself. Obviously, discretion must be practiced if comparisons are to be made outside of the school community.

The above illustrations allow school districts flexibility for local uses and needs. They are simply illustrations. Local districts may create innovative approaches with the material for their own use.
GENERAL NEEDS ASSESSMENT INSTRUMENT

GOAL TEN - PREPARATION FOR A CHANGING WORLD

Quality education should help every child to prepare for a world of rapid change and unforeseeable demands in which continuing education throughout his adult life should be a normal expectation.

1 2 3 4 5
Least Important Important Important Most Important

Area 1 - SHOWS ABILITY TO ADJUST TO CHANGES IN HIS LIFE.

Adjusts easily to new school and community; enjoys or wants to try new things; tries a job, task or assignment that was new to him.

Area 2 - RECOGNIZES NEED FOR PLANNING EDUCATION OR CAREER.

Attends programs or on his own learns about colleges, careers, courses of study; has a career goal; takes extra courses outside of regular school; looks into or asks about future changes in technology, job patterns, attitudes, etc.

Area 3 - KEEPS UP-TO-DATE.

Reads books, newspapers, news magazines, watches TV "specials" on current problems; does research or experiments to find out more about something of interest; participates in discussions, debates, panels, or writes reports on something in the news.
HOW TO USE THE INDIVIDUAL NEEDS ASSESSMENT INSTRUMENT

This instrument is designed for self-evaluation or assessment by students. The teacher may select one of the ten Goals of Quality Education, distribute the instrument for that Goal and request the students to place a check above the corresponding number representing "always" through "never". Evaluation of the check lists would reveal the individual strengths and weaknesses relative to a particular Goal.

Those behaviors receiving low scores would indicate both to the student and teacher behavioral goals to which the student should aspire. Pursuit of these goals could entail teacher-student planning of mini-units of study or projects to bring about the desired behavior. On the basis of this, teachers could collaborate on developing units of study or projects to accommodate those students who scored low on the various behavioral items.
INDIVIDUAL NEEDS ASSESSMENT INSTRUMENT

GOAL TEN - PREPARATION FOR A CHANGING WORLD

1.12 Asks for a change in course content or approach in the school setting.

Area 2 - RECOGNIZES NEED FOR PLANNING EDUCATION OR CAREER.

2.1 Says he would like to work ahead (in school setting).

2.2 Shows he has good study habits.

2.3 Has responsible work habits, or does what is expected or required.

2.4 Shows, by looking into opportunities, that he is planning ahead to future education or training, career, etc.

2.5 Shows that he has given thought to future education or training, career, etc.

2.6 Shows his belief that training or education is needed in order to be prepared for the future.

2.8 Does work to find out what it is like in a chosen career field.

2.9 Applies for a scholarship in a field where he has ability and interest.

2.10 Takes courses outside his regular school.
## INDIVIDUAL NEEDS ASSESSMENT INSTRUMENT

### GOAL TEN - PREPARATION FOR A CHANGING WORLD

#### Area 3 - KEEPS UP-TO-DATE.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Seldom</th>
<th>Usually</th>
<th>Often</th>
<th>Always</th>
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#### 3.1 Says he reads books and enjoys it.

#### 3.2 Shows interest in space program by watching something about it on TV, reading books or magazines, etc.

#### 3.3 Shows he is interested in learning about or keeping informed about a certain subject.

#### 3.5 Shows an interest in keeping up on current events by reading newspapers, watching or listening to the news, etc.
ANALYSIS OF INSTRUMENTS

The purpose of this section is to provide the Quality Education Program Study with information concerning the identification and selection of test instruments for assessing pupil development with regard to the Program's stated Ten Goals of Quality Education.

The identification and selection of test instruments for the Quality Education Program Study was done at two sites: the University of Alabama and the University of Nevada, Las Vegas. Dr. Sam Leles directed the work at the University of Alabama site, and Dr. James Case directed the work at the University of Nevada, Las Vegas site.

The test instrument identification and selection procedure at both sites was divided into three phases as follows:

Phase 1 The initial identification at each site of test instruments for all ten goals of the Quality Education Program Study.

Phase 2 The preliminary screening of the test instruments identified in Phase 1 for Goals I, III (Secondary), V, VII (Elementary), and X (University of Nevada, Las Vegas), and Goals II, III (Elementary), IV, VI, and VII (University of Alabama).

Phase 3 The final screening and analysis of the remaining test instruments from Phase 2.

After completion of Phase 1, the University of Alabama site and the University of Nevada, Las Vegas site, exchanged listings of the instruments thus far identified for all ten goals and completed Phases 2 and 3, using combined listings of instruments from both sites.

An extended description of each of these three phases of the identification and selection procedure as carried out at the University of Nevada, Las Vegas site, follows:
Phase 1  The Initial Identification of Test Instruments for The Ten Goals.

In mid-February, two graduate students at each University site were employed to make the initial identification search of test instruments for all ten goals of the Quality Education Program Study. The graduate students had previous teaching experience in public schools, and had taken considerable course work in testing, test analysis, test selection, etc., during their current graduate studies. All searchers were, therefore, familiar with the sources for the identification of test instruments.

The searchers were instructed to identify all possible instruments for all ten goals. The initial identification listing was to include the following for each instrument: title, form, author or publisher, date, grade level, a brief description of the appropriate uses of the instrument, and a bibliography notation on where the instrument was located during their search.

The criteria for the initial identification of an instrument was that the instrument appropriately measure any characteristic related to the following description of the ten goals:

I - Self Understanding  VI - Good Health Habits
II - Understanding Others  VII - Creativity
III - Basic Skills  VIII - Vocational Development
IV - Interest in School and Learning  IX - Understanding Human Accomplishment
V - Good Citizenship  X - Preparation for a Changing World

The following is a summary of the number of instruments initially identified by goal at the University of Nevada, Las Vegas site, during Phase 1:
These numbers of instruments were identified by a thorough search of the facilities at the University of Nevada, Las Vegas, and at the University of California at Los Angeles.

A listing of the above identified instruments was then sent to the Alabama site. A combined listing of the instruments identified at both sites, at the completion of Phase 1, gave the following number of instruments by goal (corrected for instruments concurrently identified at both sites):

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A table summary of the numbers of test instruments identified and analyzed by goal for the Ten Goals of Quality Education is listed below. This listing and subsequent final selection of goal-related instruments are not to be considered as exhaustive nor listed in priority form.
### SUMMARY

Number of Test Instruments Identified and Analyzed by Goal for The Ten Goals of Quality Education

<table>
<thead>
<tr>
<th>Goal</th>
<th>No. of Instruments Identified in the Initial Search (OA + W垣)</th>
<th>No. of Duplicate Instruments</th>
<th>No. of Instruments Analyzed</th>
<th>No. of Instruments Selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>64</td>
<td>10</td>
<td>74</td>
<td>26</td>
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<tr>
<td>II</td>
<td>65</td>
<td>9</td>
<td>56</td>
<td>18</td>
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<tr>
<td>III</td>
<td>97</td>
<td>10</td>
<td>87</td>
<td>39</td>
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<tr>
<td>IV</td>
<td>59</td>
<td>6</td>
<td>53</td>
<td>14</td>
</tr>
<tr>
<td>V</td>
<td>54</td>
<td>5</td>
<td>49</td>
<td>17</td>
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<tr>
<td>VI</td>
<td>71</td>
<td>6</td>
<td>65</td>
<td>20</td>
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<tr>
<td>VIII</td>
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<td>IX</td>
<td>59</td>
<td>4</td>
<td>55</td>
<td>19</td>
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<tr>
<td>X</td>
<td>53</td>
<td>3</td>
<td>50</td>
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<tr>
<td>Totals</td>
<td>664</td>
<td>56</td>
<td>608</td>
<td>209</td>
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</table>
Phase 2  The Preliminary Screening of the Test Instruments Identified in Phase 1.

The University of Nevada, Las Vegas site, performed a preliminary screening of test instruments from the above described combined listings for Goals: I, III(Secondary), V, VIII, IX, and X. The University of Alabama site concurrently performed a preliminary screening of the instruments from the combined listings for Goals: II, III(Elementary), IV, VI, and VII.

The following criteria were used at both University sites for the preliminary screening of the initially identified instruments from Phase 1 relating to each goal.

Goal One

The instrument must measure and/or identify those characteristics or attributes that provide information that would permit an individual to develop a better understanding of himself and his worth to society.

Goal Two

The instrument must measure and/or identify the individual's extent of acquiring understanding and appreciation of persons belonging to social, cultural, and ethnic groups different from his own.

Goal Three

The instrument must measure and/or identify the individual's extent of acquisition and/or mastery of the basic skills in the use of words and numbers.

Goal Four

The instrument must measure and/or identify the individual's acquisition of positive attitudes toward school and toward the learning
process.

Goal Five
The instrument must measure and/or identify habits and/or attitudes of an individual that are associated with responsible citizenship.

Goal Six
The instrument must measure and/or identify the individual's acquisition of good health habits and understanding the conditions necessary for the maintenance of physical and emotional well-being.

Goal Seven
The instrument must measure and/or identify the traits or characteristics encouraging creativity.

Goal Eight
The instrument must measure and/or identify the individual's knowledge and/or understanding of the opportunities open to him for preparing himself for a productive life.

Goal Nine
The instrument must measure and/or identify the individual's knowledge of, and/or understanding of, and appreciation of, human achievement in the natural sciences, the social sciences, the humanities, and the arts.

Goal Ten
The instrument must measure and/or identify those characteristics or attributes of an individual that relate to preparation for a life of change and unforeseeable demands.
Phase 3  The Final Screening and Analysis of The Test Instruments Remaining After Phase 2.

After the preliminary screening of the test instruments in Phase 2, the total number of instruments for each goal was reduced to approximately half.

The following criteria were used at both sites for the final screening and analysis of the test instruments remaining from Phase 2:

**Goal One**

The instrument must measure and/or identify characteristics and/or attributes of self concept, and knowledge and/or understanding of societal structures and relationships, and his relationship to these. Examples of the foregoing were: social emotional adjustment; response to ideas, people and established institutions; sense of personal worth, personal freedom, belonging; being with others; political, social, and religious values; emotional adjustment; personal preferences; self confidence; needs and problems identification; friendliness; integrity; leadership and responsibility; value complex development; emotional maturity.

**Goal Two**

The instrument must measure and/or identify traits or characteristics an individual achieves in attempting to understand and appreciate other persons belonging to social, cultural, and ethnic groups. Examples of the foregoing are: social standards, anti-social tendencies, community relations; generalized attitudes toward nationality, racial, and religious groups; a study of what different people will do in different situations; morality and personality traits, perception of others; independence, leadership, interpersonal traits; and social distance.
Goal Three

The instrument must measure and/or identify the individual's extent of acquisition and/or mastery of the basic skills in: acquiring ideas through listening and reading; communicating through writing and speaking; handling mathematical operations, and the ability to reason logically and to respect evidence. Examples of the foregoing were: assessment of reading comprehension, progress and growth; assessment of vocabulary, reading speed and accuracy; measurement of auditory memory and alertness; sound-symbol association ability; sensitivity to grammatical structure; listening ability; understanding of word meaning and sentence meaning; location of information; ability to select central ideas and skim; ability to think critically, draw influences, recognize assumptions and reason logically; spatial and numerical reasoning; measurement of concepts and skills in structure and number; recognition and application of mechanics of writing, building of sentences and paragraph; measurement of arithmetic problem-solving abilities.

Goal Four

The instrument must measure and/or identify positive attitudes toward school and learning. Descriptions include school life; interest index; attitudes toward disciplinary procedure, play, vocation and school work; opinion of school, interests, and subjects.

Goal Five

The instrument must measure and/or identify knowledge of and habits and/or attitudes associated with: loyalty to the fundamental principles of a free democratic society; effective participation in group activities either as a leader or follower; an appreciation and acceptance of the necessity for earning a living; the acceptance of the basic
ethical values of group living, e.g., honesty, concern for the less fortunate, etc. Examples of the foregoing were: assessment of knowledge and understanding of political participation, government organization and services; familiarity with issues that confront citizens in a democracy, e.g., urban problems, economic affairs, foreign policy; knowledge and understanding of the United States Constitution and federal government policies and political participation; assessment of attitudes toward changing the Constitution; assessment of actual and desired political-social activism; assessment of values relative to political controls; measurement of knowledge and understanding of democratic principles of the United States; understanding of social change; measurement of social conformity, prejudice, and degree of open/closed mind; assessment of active involvement in current social or political problems; identification of economic wants; measurement of appreciation of the role of economic factors in one's life.

Goal Six

The instrument must measure and/or identify health behavior from the viewpoint of student practices; understanding conditions necessary for maintaining good health habits; knowledge and application of safety education concept; practices and attitudes one holds regarding health habits; the causes and effects related to good health.

Goal Seven

The instrument must measure and/or identify factors in creative thinking. Examples of related terms are: logical thinking, divergent thinking, ideational fluency, expressional fluency, optimistic-imagination, style preferences, generalizing, analyzing, synthesizing and evaluating.
Goal Eight

The instrument must measure and/or identify the individual's knowledge and/or understanding of the educational and vocational opportunities open to him for preparing himself for a productive life. It is explicitly implied that the test instruments selected for this goal will also be used for educational/vocational guidance purposes. Examples of the foregoing were: measurement of mental abilities important for academic success and related endeavors outside the classroom; measurement of scholastic ability of students planning to go to college; prediction of success and satisfaction in an occupation; preference for, liking for, or interest in a vocation; assessment of work values; measurement of aptitude for skills in selected occupations; interest in selected occupational activities; measurement of abilities necessary for success in selected occupational fields; measurement of attitudes toward a vocation; assessment of personal qualities related to job success or failure; educational and vocational planning inventories.

Goal Nine

The instrument must measure and/or identify the individual's knowledge of and/or understanding of, and appreciation of, human achievements regarding the transforming conceptions of modern science, basic social, political, and psychological principles, and the differentiation of the worthy from the worthless in the arts and humanities. Examples of these were: measurement of understanding of music and artistic heritage; measurement of knowledge and comprehension of literature; assessment of understanding of recent social and scientific developments; knowledge, understanding, and appreciation of art, music, drama, and philosophy; measurement of awareness of works of famous composers, writers, and artists.
artists; measurement of ability to interpret literary materials; measurement of understanding of general scientific principles, the nature of scientific inquiry and scientific reasoning.

Goal Ten

The instrument must measure and/or identify those characteristics or attributes of an individual that relate to preparation for a life of change and unforeseeable demands. This goal explicitly implies a necessity for continuing education - both formal and/or informal, both recreational and/or vocational (or occupational) - to fill the life-long needs of the individual and society. Selection criteria for test instruments for this goal must, therefore, reflect general interests, attitudes, preferences, etc., toward work and leisure; thus the selected instruments would provide information useful to an individual for future leisure-time and vocational planning - planning that is necessary because of the rapidly changing economic and recreational nature of our world. Examples of these were: identification of behavior preferences; identification of personal problems, e.g., personal finance, planning for future, personal interests; measurement of variability and adaptability; desire for responsibility; interest in self-employment; assessment of aspirations at both idealistic and realistic levels; measurement of independence and resourcefulness; assessment of values which influence manner of coping with life-problems; classification of individual as to type, theoretical-non-theoretical, political-non-political, etc.
### GOAL TEN: PREPARATION FOR A CHANGING WORLD

#### INSTRUMENTS

<table>
<thead>
<tr>
<th>TITLE</th>
<th>FORM</th>
<th>AUTHOR OR PUBLISHER</th>
<th>DATE</th>
<th>GRADE LEVEL</th>
<th>DESCRIPTION</th>
<th>REF NO.</th>
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</thead>
<tbody>
<tr>
<td>Motivation Analysis Test (MAT)</td>
<td>Educational and Industrial Testing Service San Diego, California 92107</td>
<td>1969</td>
<td>Adult</td>
<td>Measures dynamic motivational traits; measures drive strengths—e.g., assertiveness, fear, home-parental sentiment, etc. Time: Approx. 1 hr.</td>
<td>567</td>
<td></td>
</tr>
<tr>
<td>The A-S Reaction Study</td>
<td>Gordon Allport</td>
<td>Men</td>
<td>Coll.</td>
<td>Adult</td>
<td>Test reveals the tendency of an individual toward domination or submission in his social relationships. Time: approx. 20 mins.</td>
<td>580</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Women</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Survey of Personal Values</td>
<td>Science Research Assocs.</td>
<td></td>
<td>High</td>
<td>Sch.-Coll.</td>
<td>Designed to measure six values influencing the manner in which an individual copes with the problems and choices of everyday living. Time: approx. 15 mins.</td>
<td>581</td>
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<tr>
<td>Cassel Group Level of Aspiration Test</td>
<td>Western Psychological Services, 12011 Wilshire Blvd. Los Angeles, Calif. 90025</td>
<td>1970</td>
<td></td>
<td>Measures discrepancy between real world and world perceived by subject; measures levels of aspiration, reality adjustment, delinquency and proneness</td>
<td>559</td>
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<tr>
<td>Watson-Glaser Critical Thinking Appraisal</td>
<td>Harcourt, Brace and World</td>
<td>1964</td>
<td>9-12</td>
<td>100 items, measures 5 areas: inference, assumptions, deductions, interpretation, evaluation of arguments. Time: Approx. 50 mins.</td>
<td>527</td>
<td></td>
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<tr>
<td>Test Title</td>
<td>Publisher/Author</td>
<td>Date</td>
<td>Age Range</td>
<td>Description</td>
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<tr>
<td>Watson-Glaser Critical Thinking Appraisal</td>
<td>Harcourt, Brace and World</td>
<td>1968-69</td>
<td>9-12</td>
<td>Measures five aspects of critical thinking drawing sound inferences from factual summaries. 50 mins.</td>
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<tr>
<td>Ship Destination Test</td>
<td>Sheridan Psychological Services</td>
<td>1956</td>
<td>9 &amp; Over</td>
<td>General reasoning; convergent and divergent thinking</td>
<td></td>
<td></td>
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<tr>
<td>Thorndike's Dimensions of Temperament (TDOT)</td>
<td>Psychological Corporation</td>
<td>1932</td>
<td>11-12</td>
<td>Forced choice inventory; in each set alternatives are matched for social desirability. Takes 45 mins.</td>
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<tr>
<td>Behavior Preference Record: What Would You Do? (A Study of Some Home and School Problems)</td>
<td>Hugh B. Wood, California Test Bureau</td>
<td>1953</td>
<td>4-6, 7-9, 9-12</td>
<td>Six scores: cooperation, friendliness, integrity, leadership, responsibility, critical thinking</td>
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<td></td>
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<tr>
<td>Gordon Personal Profile</td>
<td>Leonard V. Gordon, Harcourt, Brace &amp; World, Inc.</td>
<td>1963</td>
<td>9-12</td>
<td>Four scores: Ascendancy, responsibility, emotional stability, sociability. A (ascendancy) &quot;takes the lead in group discussions, able to make important decisions without help;&quot; R (responsibility) &quot;sees through a job despite difficulties,&quot; E (emotional stability) &quot;free from worry or care,&quot; S (sociability) &quot;enjoys having people around;&quot; &quot;a good mixer socially.&quot;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

674 682 640 604 608
# GOAL TEN: INSTRUMENTS
## PREPARATION FOR A CHANGING WORLD

<table>
<thead>
<tr>
<th>TITLE</th>
<th>FORM</th>
<th>DATE</th>
<th>GRADE LEVEL</th>
<th>DESCRIPTION</th>
<th>REF. NO.</th>
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<tbody>
<tr>
<td>Billett-Starr Youth Problems</td>
<td>R. O. Billett and I. S. Starr</td>
<td>1961</td>
<td>7-12</td>
<td>Problems checklist: personal finance, interests and activities, planning for future</td>
<td>129</td>
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<tr>
<td>The Philo-Probe</td>
<td>J. N. Buck</td>
<td>1943-750</td>
<td>7 &amp; up</td>
<td>Interview form for obtaining and analyzing data in four areas: aspirations, emotion, judgment and insight, ethical-moral development</td>
<td>304</td>
</tr>
<tr>
<td>The Pauli Test</td>
<td>R. Pauli and H. Reuning</td>
<td>1957</td>
<td>7 &amp; up</td>
<td>Scores yielding ratings for factors: variability, quick adaptation, and unreserved exertion, motivation</td>
<td>305</td>
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<tr>
<td>Curtis Interest Scale</td>
<td>J. W. Curtis</td>
<td>1959</td>
<td>9-16</td>
<td>Rating desire for responsibility</td>
<td>306</td>
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<tr>
<td>Edmiston R. O. Inventory</td>
<td>R. W. Edmiston</td>
<td>1956-57</td>
<td>7-12</td>
<td>Interest in self-employment</td>
<td>269</td>
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<tr>
<td>The Occupational Aspiration Scale</td>
<td>A. O. Haller, I. W. Miller</td>
<td>1963</td>
<td>Adult</td>
<td>An 8-item multiple-choice instrument which includes items permitting responses at both the realistic and the idealistic levels of LOA, each at 2 goal periods, short range and long range</td>
<td>310</td>
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<tr>
<td>Test</td>
<td>Author(s)</td>
<td>Year</td>
<td>Grade Range</td>
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<tr>
<td>Consequences</td>
<td>P. R. Christensen, Sherrill Supply</td>
<td>962</td>
<td>9-12</td>
<td>Tests originality, ideational fluency</td>
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<tr>
<td>Adaptability Test</td>
<td>J. Tiffen &amp; C. H. Lawshe</td>
<td>High Sch.</td>
<td>35 items in ascending order of difficulty. Time 15 mins.</td>
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<td>Rydel-Rosen Ambiguity Tolerance Scale</td>
<td>Rehabilitation Research and Testing Center, West Virginia University</td>
<td>High Sch.-Coll.</td>
<td>20 item scale measures ambiguity tolerance</td>
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<td>Allport-Lindsey Scale</td>
<td>Houghton Mifflin Company</td>
<td>1960</td>
<td>Male High Sch.-&amp; up</td>
<td>Scale classifies testee into six types: theoretical, economical, aesthetic, social, political, religious</td>
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<tr>
<td>Do You Agree?</td>
<td>R. B. Cattell</td>
<td>10-12</td>
<td>25 problem situations and four courses of action that would be the best on the part of the person faced with the choice</td>
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<td>Everyday Life: A Scale for the Measure of Three Varieties of Self-Reliance</td>
<td>Leland H. Stott Sheridan Supply Co.</td>
<td>1941</td>
<td>9-12</td>
<td>Three scores: Independence, resourcefulness, responsibility</td>
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<td>GOAL (Cross Reference)</td>
<td>REFERENCE</td>
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<tr>
<td>#6, #10</td>
<td>Ibid., #1863.</td>
<td>269</td>
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<td>#10</td>
<td>Ibid., #252.</td>
<td>304</td>
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<td>#10</td>
<td>Ibid., #236.</td>
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<td>Ibid., #1861.</td>
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<td>#10</td>
<td>Western Psychological Services 1970-71 Catalog. Los Angeles, Calif.: Western Psychological Services, 1970, p. 5.</td>
<td>559</td>
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<td>#10</td>
<td>Educational and Industrial Testing Service 1969-70 Catalog. p. 8.</td>
<td>567</td>
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<td>#1, #10</td>
<td>Ibid., p. 125.</td>
<td>605</td>
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<tr>
<td>#10</td>
<td>Ibid., p. 547.</td>
<td>682</td>
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