This paper describes the first component of PLAN's Guidance Program. The five basic assumptions underlying Phase I concern the role of guidance within PLAN's educational system. In line with these assumptions, direct attention is being focused on seven goals: (1) orienting new students to PLAN and orienting current PLAN students to operational changes in PLAN when they occur; (2) assisting students to improve their listening, study, and test taking skills; (3) providing students with a broad base of information regarding the nature of the working world; (4) helping students determine their personal interests and abilities; (5) assisting students and parents in more effective formulation of their goals; (6) developing individualized programs of study for students; and (7) providing for the transition from high school with basic military, college, and post-high school counseling. Each of these objectives is thoroughly discussed. (KJ)
THE 1970 PLAN GUIDANCE PROGRAM

James A. Dunn

Director, Curriculum, Guidance and Individual Planning Divisions

Project PLAN

American Institutes for Research
Staff contributing to the design of the 1970 PLAN Guidance Program:

John C. Flanagan, Ph.D.

James A. Dunn, Ph.D.  G. Brian Jones, Ph.D.
Jack A. Hamilton, Ph.D.  Thomas J. Quirk, Ph.D.
William J. Webster, Ph.D.  Steven M. Jung, Ph.D.
John R. Rhetts, Ph.D.  Jean M. Wolman, M.A.
Judith M. Melnotte, M.A.  Lauri M. Steel, M.A.
Dorothy S. Allen, M.A.  Elissa T. Kercso, B.A.
THE 1970 PLAN GUIDANCE PROGRAM

The intent of PLAN is to provide an educational system rich enough in potential educational experiences that specific tailor-made programs of study can be developed to meet the needs, wishes, interests, and abilities of each and every child. But PLAN is designed to be more than just a program of academic instruction. The goal of PLAN is to help the student to be able eventually to plan wisely for the future; to appreciate what the realistic probabilities of actually achieving his goals are; to pursue his goals with directness, skill and perseverance; and eventually, to arrive at a satisfying balance between work, leisure, and citizenship involvements. PLAN Guidance plays an important role in the achievement of these goals.

Guidance activities assume many different configurations in schools across the nation. This is because local guidance programs typically represent a mix of three fundamentally different types of guidance emphasis. These three emphases are: (1) the facilitation of normal growth and development of the individual; (2) the prevention of abnormal or atypical problem development in children (i.e., problem prevention); and (3) assuming problems have developed, the differential diagnosis of these problems and development of programs to ameliorate those problems. All of these are necessary for a comprehensive guidance system. All will eventually be available in PLAN.

While some of the variance in the guidance services offered in schools today is due, no doubt, to individual differences in the interests, skills, and competencies of the practitioners working in the field, a good deal of variance must be attributed to the extreme difficulty of instituting a truly
comprehensive guidance program in a school system, given the resources of public education mobilized in their current format. PLAN, however, is not encumbered with many of the structures of traditional education. We are not limited to formal course structures; to the grade level concept; to a limited set of fixed "curricula;" to the hand-posted cumulative record; to a minimal number of discrete and highly arbitrary counseling choice points for the individual; and the like. PLAN is not a fixed program. It is continually undergoing evaluation and improvement. It is a dynamic, and evolving, educational system. And because of the modular nature of the PLAN system, improvements and refinements can be added to a school's ongoing academic program with little difficulty.

It is expected to take five years to develop the first version of a comprehensive PLAN Guidance Program. Initial attention in this effort has been directed toward the creation of a component to serve the needs of all students rather than just a special few, i.e., toward the creation of a normal developmental guidance component. Current attention is being directed toward the development of a student supportive component, i.e., a component aimed at reinforcing positive behavior and minimizing the development of problem behavior. Later effort will be devoted to the development of a treatment-oriented component aimed at the amelioration of problem behavior.

The first component of PLAN's Guidance Program has been developed and field tested and is ready for implementation this Fall. The purpose of this brochure is to describe this first component in detail.
THE 1970 PLAN GUIDANCE PROGRAM

The intent of PLAN is to provide an educational system rich enough in potential educational experiences that specific tailor-made programs of study can be developed to meet the needs, wishes, interests, and abilities of each and every child. But PLAN is designed to be more than just a program of academic instruction. The goal of PLAN is to help the student to be able eventually to plan wisely for the future; to appreciate what the realistic probabilities of actually achieving his goals are; to pursue his goals with directness, skill and perseverance; and eventually, to arrive at a satisfying balance between work, leisure, and citizenship involvements. PLAN Guidance plays an important role in the achievement of these goals.

Guidance activities assume many different configurations in schools across the nation. This is because local guidance programs typically represent a mix of three fundamentally different types of guidance emphasis. These three emphases are: (1) the facilitation of normal growth and development of the individual; (2) the prevention of abnormal or atypical problem development in children (i.e., problem prevention); and (3) assuming problems have developed, the differential diagnosis of these problems and development of programs to ameliorate those problems. All of these are necessary for a comprehensive guidance system. All will eventually be available in PLAN.

While some of the variance in the guidance services offered in schools today is due, no doubt, to individual differences in the interests, skills, and competencies of the practitioners working in the field, a good deal of variance must be attributed to the extreme difficulty of instituting a truly
comprehensive guidance program in a school system, given the resources of public education mobilized in their current format. PLAN, however, is not encumbered with many of the structures of traditional education. We are not limited to formal course structures; to the grade level concept; to a limited set of fixed "curricula;" to the hand-posted cumulative record; to a minimal number of discrete and highly arbitrary counseling choice points for the individual; and the like. PLAN is not a fixed program. It is continually undergoing evaluation and improvement. It is a dynamic, and evolving, educational system. And because of the modular nature of the PLAN system, improvements and refinements can be added to a school's ongoing academic program with little difficulty.

It is expected to take five years to develop the first version of a comprehensive PLAN Guidance Program. Initial attention in this effort has been directed toward the creation of a component to serve the needs of all students rather than just a special few, i.e., toward the creation of a normal developmental guidance component. Current attention is being directed toward the development of a student supportive component, i.e., a component aimed at reinforcing positive behavior and minimizing the development of problem behavior. Later effort will be devoted to the development of a treatment-oriented component aimed at the amelioration of problem behavior.

The first component of PLAN's Guidance Program has been developed and field tested and is ready for implementation this Fall. The purpose of this brochure is to describe this first component in detail.
PLAN GUIDANCE - PHASE I: NORMAL
STUDENT GROWTH AND DEVELOPMENT

Five basic assumptions underlie Phase I of the PLAN Guidance Program. They are:

1) guidance should be, insofar as possible, an integral part of the regular academic program and should contribute to the overall educational development of the child;

2) teachers can play a much larger role in routine guidance matters than they have typically been asked to do in recent years;

3) schools should make a much more direct and concerted effort toward considering and accommodating parental wishes and aspirations for their children;

4) guidance, in an individualized education system, must be concerned not only with helping students to formulate and pursue long range educational and vocational goals, but also with making the educational system responsive to the immediate needs, interests, and abilities of students; and finally,

5) a guidance program, to be effective, must be based on empirical evidence of its effectiveness.

In line with these assumptions, PLAN Guidance 1970 focuses direct attention on:

1) orienting new students to PLAN and orienting current PLAN students to operational changes in PLAN when they occur;

2) assisting students to improve their listening, study, and test taking skills;

3) providing students with a broad base of information regarding the nature of the world of work;

4) helping students determine their personal interests and abilities, and helping them understand the implications of those interests and abilities vis-a-vis the goals they set for themselves;

5) assisting students and parents in more effective formulation of their goals, and in making provisions for student and parent long range goals, wishes, and aspirations to be considered in the educational planning for a student;

6) developing individualized programs of study for students
which take into account: (a) state and local school requirements; (b) parental wishes; (c) student's interests, abilities, values, and aspirations; and (d) the best collective judgment that can be brought to bear from such sources as teachers, curriculum consultants, and panels of national experts; and finally,

7) as a student nears the end of his school experience, providing for the transition from high school with basic military, college, and post-high school counseling.

Orientation

With regard to student orientation, it has been found from two years of field testing that extensive orientation efforts are quite unnecessary. Students very quickly learn the PLAN routine in situ. Thus formal orientation efforts are rather brief and focus on two efforts. The first is an orientation of the student to what is expected of him in PLAN classrooms. The PLAN student should know that in PLAN classrooms students rarely all do the same things at the same time; that each student works at his own speed; that tests are used differently in PLAN classes than in regular classes; that PLAN classes differ from traditional classes in the variety of books and instructional materials used; and that there is a high degree of personal responsibility expected of PLAN students, e.g. responsibility for obtaining and replacing instructional materials, for taking initiative in a variety of learning activities, and the like. Next, the student is oriented to the simple mechanics of PLAN Teaching-Learning Units (TLU's), how to challenge modules, how to read a Program of Study (POS), the persons responsible for the POS, when a POS should be changed, and how to change it. All of this information is incorporated in a 17 page Student Guidebook which the student is free to keep.

Student orientation in the early grades is, of necessity, somewhat
different. Primary student orientation is teacher-led. The primary teacher is provided with a Teacher's Guide, a filmstrip, and instructional material that she can use with the children. Teachers and administrators also often find the filmstrip useful for interpreting the P-AN program to various PTA and community groups.

Study Skills

Study skills improvement modules dealing with individual differences and their assessment, strategies for test taking, listening skills, and study management skills, are incorporated in students' programs of study as they become more independent in their studies. This usually occurs sometime during the middle of the elementary grades. These skills are then reinforced periodically through high school. These modules are part of the Science and Language Arts offerings, and thus represent the integration of guidance into the academic program indicated earlier. For example, basic psychology modules dealing with individual differences and their assessment are part of Science; listening and study skills are part of Language Arts.

Knowledge of the World of Work

The bulk of information regarding the world of work is presented as an applied economics strand in Social Studies. As such, the study of occupations is intimately related to the study of economics and contemporary problems and can be used as collateral material in the consideration of such topics as economic geography, urban problems, and the like. The program consists of 30 modules spread across all 12 grade levels and are distributed in the following fashion.
In the primary grades there are some 27 objectives which place emphasis on: (1) the nature of work in a variety of jobs, (2) the patterns of interaction with other persons on various jobs, (3) work, both as a means of making a living and a means of attaining personal satisfaction, (4) the roles that various occupations play in fulfilling social and economic needs, and (5) the ways in which people prepare for occupations. This is the equivalent of five modules which are incorporated in regular Social Studies modules.

At the intermediate grades there are 12 modules which introduce the concept of job families, acquaint the student with the wide variety of occupations included in each family, discuss the changing nature of the American labor force, and provide the student with basic information regarding some 50 of the major occupations in the labor market. In particular, PLAN students study the groups that comprise the largest numbers of workers, both male and female; the largest numbers of unemployed workers; the relationship between the occupations in greatest demand projected over the next 10 years, and the amount and kind of education required to enter them; and projected labor trends.

The intent is to give the student an appreciation of the variety and complexity of occupations, the nature of the tasks subsumed under those occupations, the type of training and preparation necessary, the style of life associated with each, and some concept of the contribution of these occupations to the fabric of American life. This emphasis is continued into the secondary level where an additional 13 modules round out the program.
Knowledge of Self

The personal assessment program has, to date, focused primarily on the development of interest and ability measures which form the foundation for student-parent long range goal planning. Three scales have been developed and are currently in use: an 18 scale Developed Abilities Performance Test, a 30 scale General Information Test, and a 12 scale PLAN Interest Inventory.

The data from these measures are used by the PLAN system, as well as by the individual student and his parents. In the former case, the data are used in the generation of data-suggested long range goal categories. In the latter case the individual student uses data on his own personal abilities and interests, in the formulation of his own long range goals. Both the data-suggested goal category and the student-selected goal category are employed in individualizing the student's educational experiences.

Student-Parent LRG Formulation

The purpose of the student-parent long range goal (LRG) formulation

FIGURE 1

LRG FORMULATION

- occupational information
- knowledge of self
- career planning practice
- personal goals
- decision-making skills
- probability assessments
strand is to improve a student's long range goal formulation skills so that he can arrive at decisions on the basis of informed choice. The paradigm being followed is given in Figure 1.

The student-parent long range goal formulation effort for 1970 consists of a series of 11 modules which the student takes in cooperation with his parents (typically as an out-of-school activity). This series results in the student and his parents jointly arriving at, and specifying, the educational and general vocational aspirations and goals they hold. The information obtained is then used as input data for the generation of the student's individualized program of studies. The following is a description of this series of modules.

The first two modules deal with decision-making, the consequences of decision-making, the times when certain kinds of decisions typically ought to be made, and the consequences should those decisions be arrived at too early or too late. The modules are entitled "Introduction to Decision-Making" and "Choices and Consequences."

These two modules are then followed by a series of five modules dealing with a rather detailed analysis of the 12 LRG families suggested by the TALENT data, a description of the characteristics of prototype jobs comprising those LRG's, and a fairly detailed analysis of the skills and abilities characteristic of students going into the occupations representing those LRG's. These five modules utilize a series of four 30-page booklets that are based largely on the analysis of TALENT data, statistics from the Bureau of Labor Statistics, and such sources as the Occupation Outlook Handbook.

These modules are followed by two career planning modules in which a
student receives practice in decision-making and planning for hypothetical individuals.

The career planning exercises are then followed by a module dealing with personal interests and values to be considered in making tentative LRG choices. In the final module the student and his parents apply what they have learned in the previous ten modules to arrive at the selection of tentative long range goals.

This LRG information then becomes part of the input system for POS generation.

New PLAN students who do not go through the LRG selection process in the Spring, will follow a special procedure when they enter school in the Fall. This is a procedure in which student and parents are simply asked to state their goals. Since they were not in PLAN in the Spring, they will have to arrive at these decisions with only minimal help from the Guidance Program. This handicap is of only short duration, however, since LRG review and reconsideration, as well as POS generation, is carried on annually.

The PLAN Program of Studies

Individualization has long been a goal of education. Indeed, Washburne in the 24th NSSE yearbook entitled Adapting the Schools to Individual Differences has written: "It has become palpably absurd to expect to achieve uniform results from uniform assignments, made to a class of widely differing individuals. Throughout the educational world there has therefore awakened a desire to find some way of adapting schools to the differing individuals who attend them."

While this has the ring of indictment and exhortation that is very much a part of the activist scene today, the comments were written almost 50 years
ago. In spite of an almost perennial concern for individualization, education just doesn't seem to have moved very far in that direction. For example, the USOE ERIC Documentation Center System carries over 1900 references from recent years dealing with curriculum. Only 36 have anything whatsoever to do with individualized curricula, individualized programs of study, individualized education, or the like. And of these 36, approximately half dealt only with some form of programmed instruction.

Wilhelms in the 1962 NSSE yearbook, Individualizing Instruction, after an extensive review of the major educational programs laying claim to accommodating individual differences, concluded that "there has been far too much tendency to individualize with respect to little more than rate of progress... and one must have a meager conception of individualization to settle for students merely being able to do the same things at a different pace."

It is through the program of studies (POS) that PLAN hopes to individualize more fully a student's education. The POS attempts to individualize content and instructional method as well as quota and length of exposure time.

In particular, the POS considers: (1) what the student needs to know; (2) what the student already knows; (3) what the student would like to know; (4) the rate at which the selected content should be presented; (5) the sequence in which the content should be presented; (6) the mode of presentation of that content; (7) the difficulty level of the learning materials used to teach the content; (8) the nature of the physical and social context in which the teaching-learning takes place; and (9) the amount of teacher supervision, media-richness, and technology involved; (10) student-parent long range goals and aspirations; and (11) the stu-
dent's level of developed abilities. Figure 2 indicates the sources of input into the POS.

**FIGURE 2**

**INDIVIDUALIZATION OF THE INSTRUCTIONAL PROGRAM**

- State and local requirements
- Past academic record
- Instructional resources
- Teacher recommendation
- Student's interests and abilities
- Parental wishes
- Current level of academic achievement
- Suggested POS

**State and local requirements.** State and local requirements receive first priority in the generation of a student's program of studies. Clearly, school systems using PLAN must have a mechanism whereby these requirements receive special attention.

The collection of information regarding state and local requirements is the responsibility of PLAN personnel. This is a fairly simple and straightforward procedure, but one which may not be taken lightly.

School systems should be very careful that what they indicate is in fact actually required because all students will be held strictly accountable for what is specified. Casualness in the statement of state and
local requirements can have serious implications for the generation of students' POS's. The department of education of a particular state, for instance, may require that a certain text be used by the children of that state. It may not specify the extent to which that text is to be used. It does not necessarily follow from state adoption, then, that only the state text is to be used, and that each child must study from that text each day or each week. In another state, for example, American government must be taught as a condition for graduation from high school. This is typically interpreted as a semester of civics in the senior year. The reasoning is quite clear. The semester is the smallest unit of instruction that the traditional high school can conveniently accommodate, and also, since it is a requirement, it is easier to manage if it is deferred until just before graduation.

In PLAN, however, this type of rigidity is not necessary. The study of American government can be either modest or extensive, depending on a student's interests and abilities, and it may be taken at almost any time during high school. Thus a school should be careful to indicate only that the study of American government is required of all students prior to high school graduation, and not that a semester of civics is required in 12th grade.

Students' interests, abilities, and parental wishes. The next main source of input for POS generation is student-parent educational and vocational long range goal information and the student's interests and developed abilities. This information is derived from PLAN tests and the student-parent LRG formulation strand. The information is then used in the search of the instructional resources available in PLAN to select the modules that
will be recommended to the student.

Instructional resources. With regard to the instructional materials available in PLAN a few background comments are appropriate.

During the early years in PLAN development, module writing was based on guidelines derived from a detailed analysis of the curriculum guides supplied by the original participating school systems. Then, as the set of instructional resources became more extensive, the materials were evaluated against a master curriculum planning chart which was developed with the aid of four National Curriculum Advisory Panels. People serving on the panels were:

Mathematics:
- Dr. Howard Fehr
- Dr. Donovan Johnson
- Dr. Burt Kaufman
- Dr. Hans Zassenhaus

Science:
- Dr. Robert Gagné
- Dr. Paul DeHart Hurd
- Dr. Robert Karplus

Language Arts:
- Dr. Francis Christensen
- Dr. Julius Hook
- Dr. Walter Loban
- Dr. Robert Ruddell
- Dr. Ruth Strickland

Social Studies:
- Dr. Richard Gross
- Dr. John Haefner
- Dr. John Michaelis
- Dr. Roy Price

The curriculum planning charts then served as guidelines for the production of the balance of materials in PLAN.¹

¹PLAN-1970 has approximately 250% as many teaching-learning units as a typical student could normally be expected to complete.
Each of the 2500 Teaching Learning Units in PLAN has been assigned an average of 45 different index numbers to describe its level of difficulty, the priority and sequence it should receive in POS assignment, instructional characteristics, and the like.

After the modules have been tentatively selected for a student's POS, a search of the student's past academic record is made to ascertain whether he has completed any of those modules, or whether he has any required modules left over from the preceding year that he must make up before he goes ahead.

Next, the student's most recent achievement test results are reviewed to ascertain a tentative level of placement at which the student should begin. The POS procedure then prorates the balance of the modules out across the remaining number of years the student plans to study that particular subject.

This prorata estimate is balanced against a module quota which is computed for each student based on his level of developed abilities and his demonstrated rate of progress from the preceding year. If his quota exceeds the prorated estimates, the student is either assigned enrichment or probable interest modules, or allowed to accelerate into modules at a higher level, depending on the teacher's judgment and the student's wishes. If, on the other hand, his calculated quota is less than the prorated modules required for his long range goals, a special message will be printed for the student advising him of that fact and counseling him that, given his expressed goals, in order to achieve the educational preparation considered necessary, he should plan either (a) to revise upward the total number of years he expects to spend studying in that area; or if that is impossible,
(b) to increase the amount of time and effort he will devote to the study of
that subject in the time he has left.

Finally, after all these input factors are considered, the procedure
turns to the professional judgment of the teacher. It is the teacher who
provides the basic data about the efficiency of each student's learning
style, and it is on this information that student-TLU matching takes place.
In the primary grades the teacher also indicates the reading and arithmetic
strands into which the student is placed and she is called upon, at all
levels, to provide special placement instructions should she have students
who are either extremely fast or extremely slow. And finally, the teacher
is, of course, the ultimate authority over a student's POS. She can revise
a student's program of study at any time to meet conditions as she sees them.

On-line POS generation. The program described above is the program as
it is planned for regular PLAN students and for new PLAN students who are
identified prior to Spring testing. Students new to PLAN in the Fall will
use an abbreviated testing and data collection procedure that feeds into
an on-line computer system which will generate new-student POS's in the Fall.
These POS's will be less varied than the POS's described above by virtue
of the simple fact that a student who gets placed into PLAN the first of
September simply does not have the kind of information accumulated on him
to permit the extensive treatment afforded students who have been in PLAN
the preceding year, or who were tested in the Spring before entering PLAN
in the Fall.

Military, college, and post-high school counseling. The final aspect
of the 1970 PLAN Guidance Program is the counseling junior and senior stu-
dents receive to prepare them for the transition from high school. A series
of six modules is involved. Two modules acquaint the student with the nature of his military obligations, the advantages and disadvantages of enlistment as compared to the draft, etc. Two others acquaint students with colleges and universities, their organizational structure, and how to apply to them. Those students who decide to apply for college admission actually do so. Those who do not plan to go on to college immediately, take a set of two modules dealing with junior and community college opportunities, on-the-job training, and job search and application.

Regardless of a student's choice, i.e. college, military, or other post-high school commitment, these modules all result in the student making some active movement toward the transition from high school.