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## ABSTRACT

Three specific student needs are initially discussed: (1) the need to assess personal abilities, aptitudes, interests, job and college characteristic preferences, and physical and social characteristics; (2) the need to acquire information about educational and occupational alternatives; and (3) the need to learn and apply a strategy for processing this information into personal goals, plans, and actions. Throughout the program, students are seen as problem-solvers, partners in the process of education. The Developmental Guidance Program presented in this paper was designed to facilitate the student in this role of exploration and the formation of tentative decisions about long range educational and occupational goals. The Program, however, is only prototypical and intended to stimulate the design of a broad program of educational and vocational information to meet student career needs. Evaluation instruments designed to assess the success of such programs were mentioned and the need for further evaluative procedures stressed.  
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INTEGRATING AND EVALUATING CAREER INFORMATION  
IN A DEVELOPMENTAL GUIDANCE PROGRAM

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A primary aim of developmental career guidance programs should be to assist each student to formulate educational-vocational goals that will serve to direct his performance both within and outside the school environment. To select, and to manage his progress toward achieving, both immediate and long-range goals, each student needs specific and accurate information obtained from reliable sources that help each student relate his own personal characteristics to the variety of educational-vocational opportunities that are available to him.

#### SPECIFIC STUDENT NEEDS

An individual has at least three major needs when he confronts a particular educational/occupational choice point. He needs to assess his personal characteristics in terms of his developed abilities, aptitudes, interests, job and college characteristic preferences, and physical and social characteristics; to acquire information about educational and occupational alternatives; and to learn and to apply a strategy for processing this information into personal goals, plans, and actions.

A student should know the present developmental status of his personal characteristics relative to educational/occupational alternatives. Just to know that his score on a test of quantitative ability places him at a certain percentile rank, according to national norms, does not in itself help a student very much in making a decision about a high school course or a post-high school occupational training program. In order to make the data meaningful, he must be able to connect such items of information with some of the available alternatives open to him and make thoughtful interpretations of their predictive powers (Katz, 1966). Students need accurate information on the patterns of individual differences that are predictive of career choice,

information which longitudinal studies such as Project TALENT are beginning to provide. Tables should be developed for a large number of occupations and occupational families, showing the likelihood of an individual with certain characteristics entering each of the various occupations.

Secondly, students need specific and current information, obtained from reliable sources, relevant to the many and varied high school and post-high school options that are available to them; as well as a paradigm for evaluating those options and making decisions wisely (Clark, Gelatt, and Levine, 1965). Students can then relate an appraisal of their own personal characteristics to information about such aspects of educational/occupational opportunities as requirements, conditions of work and study, and personal and social consequences.

In the past, students typically have had few opportunities to acquire personally relevant information about educational/occupational alternatives. The information they have obtained often has been based on myth and stereotype. Lacking good information, students often have either delayed setting tentative long term educational/occupational goals, or have made them based on contacts limited to such people as members of their immediate family, relatives, and friends. As McDaniels (1968, p.242) has said, "youth are not too young to choose, only too poorly prepared to make choices."

Finally, students need to become proficient in the problem-solving skills which enable them to process information about themselves and related to various educational/occupational alternatives into short-term as well as long-range goals, and into plans of action for achieving them. Figure A on the next page presents the personal problem-solving model utilized in a prototype educational-vocational guidance program that we are currently field testing.

### Figure A

#### Personal Problem-Solving Model

Skill Area #1: Understanding, and being willing to work on, the problem of selecting and attaining personal educational and vocational goals.

Skill Area #2: Searching for, evaluating, and using information on personal characteristics and related opportunities in the world of education and work.

Skill Area #3: Finding and thinking about alternative educational and vocational goals.

Skill Area #4: Selecting the most desirable educational and vocational goals, and making plans for achieving them.

Skill Area #5: Carrying out plans related to the goals selected.

Skill Area #6: Finding out how well this process of selecting goals and getting them accomplished has worked.

### STUDENT INVOLVEMENT IN THE GUIDANCE PROGRAM

The discussion to this point has been predicated on the model of each student as a problem solver, and school personnel as partners with students, in the process of education. As a problem solver, the model student will be able to engage in planning, decision-making, and management activities wisely and independently, i.e., with minimal support from others. He will have the necessary information on his own characteristics and his environment in order to generate and consider alternative courses of action, and will have the skills that will enable him to participate in the formulation of his goals and to progress toward achieving them. These requisites enable him to participate

in "educated involvement" or "informed choice" relative to the educational and vocational aspects of this career.

Emphasis is placed on helping students and parents to become more "capable" planners and decision-makers, and involving them in selecting the student's short-term and long-range goals and in formulating plans related to these goals. Any selection, screening, assignment, or evaluational processes that minimally involve students and parents in decision-making would be incompatible with these assumptions. Counselors, teachers and other school support personnel should be prepared to complement student-parent involvement, by facilitating the development of student planning, decision-making, and self-management skills.

#### A PROTOTYPE EDUCATIONAL-VOCATIONAL GUIDANCE PROGRAM

A four-step sequence has served to guide the design of our prototype developmental program for student educational-vocational guidance. First, student needs have been identified in an explicit rationale that provides direction for the formulation of student educational-vocational goals, of instructional objectives that relate to these goals, and of statements of the performance outcomes that indicate when students have attained these goals and objectives.

Second, instructional objectives have been specified in terms of the commonalities among the great variety of student educational-vocational guidance needs. Figure B shows a sample page from the specification sheets for the intermediate level of the program, illustrating the instructional objectives and student outcomes listed under Skill Area #1 (See Figure A for the description of all six skill areas in the problem-solving model). Third, the prototype program has been implemented, in part, in a "real" environment. Learning materials and procedures, collected from those currently available or developed

INTERMEDIATE LEVEL

SKILL AREA #1 Perceiving, delineating and committing to work on, the problem of selecting and attaining personal educational and vocational goals.

Instructional Objective	Related Student Outcomes
<ol style="list-style-type: none"> <li>1. To understand that you eventually must select educational and vocational goals, make plans for achieving these goals, and accept responsibility while performing adult roles related to the goals and plans.</li> <li>2. To recognize how your educational decisions might affect your future educational job opportunities and how these can work the other way, too.</li> <li>3. To identify the kinds and sequences of educational choices you will be required to make to prepare for your vocational future.</li> <li>4. To understand that you need to gather information about a variety of educational and vocational opportunities in order to select educational and vocational goals wisely.</li> </ol>	<ol style="list-style-type: none"> <li>1. To understand that these three things are essential in preparing for and assuming educational and vocational roles in their careers:               <ol style="list-style-type: none"> <li>a. personal goals</li> <li>b. plans for attaining these goals</li> <li>c. ability to put these plans into action in order to attain these goals</li> </ol> </li> <li>2. To recognize that:               <ol style="list-style-type: none"> <li>a. decisions about school subjects and types of programs or schools to attend in high school and later will influence your long-range educational and occupational choices; the educational and vocational aspects of your career should be an extension of, influenced by, your preferred life style or way of living.</li> <li>b. your immediate decisions might help or hinder your freedom for later decisions by tending to close some doors while holding others open.</li> <li>c. your long-range goals and plans should influence your immediate decisions.</li> </ol> </li> <li>3. To discuss with counselors, teachers, and parents the possible relevance and irrelevance of your school programs to your educational future and to recognize possible consequences of your educational choices such as:               <ol style="list-style-type: none"> <li>a. your high school required and elective courses.</li> <li>b. your post-high school education and training (e.g. technical school, military training programs, college).</li> </ol> </li> <li>4.               <ol style="list-style-type: none"> <li>a. To recognize and to interpret why during your career you probably will consider, and even try, more than one type of education or training program or more than one occupation;</li> <li>b. To provide examples of occupational opportunities you have recently explored and found to be different than you had at first thought they would be;</li> <li>c. To identify one way that learning about jobs and the world of work now can help you make career decisions later on;</li> <li>d. To explain why you should have a least one back-up educational and vocational goal in case you or situations change and you need to change your first choice goals.</li> </ol> </li> </ol>

Figure B

by our staff, have been keyed to objectives like these. "Guidance-Learning Units"

1. present students with statements of the particular objective,
2. indicate what materials they should use and what procedures they should follow to achieve these objectives,
3. provide a setting in which they can perform the related outcome behaviors, and
4. help them to evaluate the extent to which they have met the objectives.

Figure C presents an example Guidance Learning Unit being used in a field test setting.

Currently, a portion of the program is undergoing pilot testing with 25 ninth and tenth grade students at Santa Clara High School, Santa Clara, California. An initial group of counselors and students reviewed all available objectives in both the intermediate and secondary levels for the prototype program. Subsequently, 44 objectives were selected to comprise the Santa Clara Pilot program. Of these, 19 were determined to be sufficiently important to be listed as universal or "core" objectives, while the remaining 25 were classified as optional. Each student made out his own program of studies (see Figure D), on which the core objectives were listed as well as those objectives, selected from the optional 25, that served to individualize his program.

The final step of the sequence involves evaluation procedures directed toward assessing the degree to which each student's guidance-related needs are being satisfied, i.e., the extent to which students are achieving agreed-upon goals and objectives. Evaluation instruments, that are capable of assessing student performance on each behavioral objective either before or after he has participated in a learning activity, must be constructed and continually improved. The data collected through the employment of such instruments must be used to refine both the related objectives and student learning activities.



Figure C

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SKILL AREA 1

OBJECTIVE 4

GUIDANCE LEARNING UNIT

Santa Clara High School

GENERAL OBJECTIVE:

To understand that you need to gather information about a variety of educational and vocational opportunities in order to select educational and vocational goals wisely.

To accomplish this objective you should be able to do the following things:

1. to recognize and to interpret why during your career you probably will consider, and even try, more than one type of education or training program or more than one occupation;
2. to provide examples of occupational opportunities you have recently explored and found to be different than you had at first thought they would be;
3. to identify one way that learning about jobs and the world of work now can help you make career decisions later on; and
4. to explain why you should have at least one back-up educational and vocational goal in case you or situations change and you need to change your first choice goals.

USE THESE MATERIALS	DO THE FOLLOWING ACTIVITIES
<ol style="list-style-type: none"> <li>1. Problem solving kits: Science Research Associates, <i>Job Experience Kits</i>.</li> <li>2. PLAN Teaching-Learning Unit: TLU 49-750, Objective #9625 only.</li> <li>3. Filmstrip: <i>World of Work</i>, Society for Visual Education, Inc.</li> <li>4. Film and Student Materials: <i>Careers in Banking</i> (film), <i>Student Response Booklet</i>, <i>Student Resource Guide</i>.</li> </ol>	<ol style="list-style-type: none"> <li>1. There are 11 of these kits and each of them focuses on a different occupation. The occupations are listed (on and in) the file boxes containing the kits. Pick 5 kits on occupations about which you know little but in which you think you might have some interest. Using the first two of the above specific objectives for your guidelines, work through each of the 5 kits. After you complete each one, be sure to fill out an evaluation form on it. These forms are stored with the kits.</li> <li>2. Read this objective thoroughly. Now do the TLU activities which relate to that objective.</li> <li>3. Observe the filmstrip while using both the filmstrip guide and all of the above specific objectives as guidelines.</li> <li>4. This is an optional activity which is like the problem-solving kits. You can omit it if you believe you have already met all the objectives for this Guidance Learning Unit. If you select this activity, let your counselor know when you are ready to see the film. When at least five or six other students are ready, he will call you together. Make sure you have a <i>Student Response Booklet</i> in which to record answers to the filmstrip problems.</li> </ol>

Important: When you have completed these activities, see your counselor to have him check you in the specific objectives above and to sign your Program of Study.

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# Figure D

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Guidance Research Program

SANTA CLARA HIGH SCHOOL

EDUCATIONAL-VOCATIONAL GUIDANCE PROGRAM

## STUDENT PROGRAM OF STUDY

Your Name \_\_\_\_\_ Date \_\_\_\_\_

Note: This Program of Study should contain guidelines for your activities in this guidance program during the next few weeks. These guidelines will be a set of instructional objectives toward which you direct your efforts. The following table is divided into four columns as follows:

Column I These "Core Objectives" are ones believed necessary for a basic guidance program for each of you. These objectives should help you acquire some skills in all areas of this program.

Column II With the help of your counselor select other objectives which both of you think would be the best ones to help you prepare for, and make, educational and occupational choices. In this column opposite the appropriate skill area, write the number of each objective you decide to add to your core program of Study.

Column III Later in this guidance program, write the date on which you achieve each objective.

Column IV In this column your counselor should sign his name each time you have demonstrated that you have achieved an objective. The dates and these signatures indicate the progress you are making in your Program of Study.

Educational-Occupational Problem-Solving Skill Areas	I Core Objectives	II Individualized Objectives	III Date Achieved	IV Counselor Signature
1. Understanding the problem	#2			
	#3			
2. Searching for information	#1			
	#2			
	#3			
	#5			
	#7			
	#8			
	#12			
	#13			
3. Finding Alternatives	#3			
	#5			
	#6			
4. Selecting goals and making plans.	#2			
	#3			
5. Carrying out plans	#1			
	#3			
	#8			
6. Finding out if it works	#1			

Evaluation techniques such as a counselor "check" (see Figure C) are insufficient, in themselves, to determine how well students have achieved criterion performance levels related to behavioral objectives, and the degree to which they have satisfied their needs. We have been designing measures for the purpose of assessing each student's overt behaviors, attitudes, and understandings related to his instructional objectives, and to his immediate and long-range goals. An Educational and Vocational Exploratory Behavior Inventory relies on student recall to measure his career behaviors performed in natural settings. A Goals and Behaviors Survey assesses student attitudes toward having or not having career goals. An Occupational Knowledge Survey measures student knowledge and understanding of trends in the world of work, of occupational families, and of particular occupations within those families. All three of these instruments are being employed on a pre- and post-treatment basis in the Santa Clara High School pilot test.

#### SUMMARY

A developmental guidance program should have, as one of its principal aims, the assistance of young people in exploring and reaching tentative decisions about long-range educational and occupational goals. Each student must learn to assume responsibility for formulating his goals, for making plans and decisions with respect to his educational and vocational development, and for the management of his learning in such a manner that his goals will be achieved. A broad program of educational and vocational information should be designed to meet the career needs of each student, i.e., to aid him with his tentative long-range goals formulation and with his decision making at specific choice points. To evaluate how effectively career information is being utilized, procedures must be directed toward assessing the degree to which each student's needs are being satisfied, i.e., the extent to which students are achieving

agreed-upon goals and objectives within the context of their educational programs.

The evaluation process must provide feedback to the total educational system in order that the curriculum can be adapted to the specific needs of each student.

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