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ABSTRACT

The problem of assisting students to consider vocational-educational opportunities is discussed. To meet the needs of prospective vocational education students, a guidance system must help them in educational and vocational planning; interest them in the exploration of training opportunities, and motivate them to seek information and pursue enrollment at the appropriate institutions. Since there are many negative attitudes (parents' and students') toward vocational education, it is recommended that parents become involved in the processes which are part of a vocational guidance system. Twelve possible components of a comprehensive vocational guidance system are outlined. It is stressed that in order to be comprehensive the system must complement the other activities of the educational program so that the total program attempts to meet all the needs of all the students. Examples which illustrate how the findings of Project TALENT can contribute to the improvement and development of a guidance system are also included. (Author/RM)

USING PROJECT TALENT TO IMPROVE VOCATIONAL GUIDANCE

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American Institutes for Research

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During recent months we have been giving some thought to a guidance-related problem brought to our attention by vocational educators at an area vocational center. This is a problem of assisting students to consider vocational-educational opportunities if these represent viable decision-making alternatives for them. A pilot investigation led us to conclude that to meet the needs of prospective vocational education students a guidance system must help these students in educational and vocational planning, interest them in the exploration of the training opportunities for skilled trades, and motivate them to seek information and perhaps pursue enrollment in the vocational-educational opportunities offered at such institutions.

Vocational counselors often find that there are at least three inter-related factors adversely affecting student interest in vocational education. First, vocational education programs are considered as a "dumping ground" for many school systems (Snedden, 1938, Passow, 1968). Students unable to meet the demands of college preparatory or general education curricula are often "counseled" toward vocational education curricula (Conant, 1961). Second, many parents, teachers, and school administrators not directly involved in vocational education programs consider them "less respectable" than college preparatory programs (Wenrich & Crowley, 1964). Third, students themselves frequently develop pejorative attitudes--probably conditioned by their parents and other adult models--toward vocational education teaching, and toward the students and the values of terminal training programs (Silverman, 1963).

Our recommendation to the vocational educators concerned is that a well-developed comprehensive vocational guidance system, aimed not only at assisting students to formulate their educational and vocational goals, to plan the achievement of these goals, and to manage their performance toward these goals, but also at involving parents in these processes, can be a necessary condition for countering negative attitudes toward vocational education. This paper

briefly outlines possible components of such a guidance system and indicates how the findings of Project TALENT can contribute to the improvement of some of these components.

A Comprehensive Vocational Guidance System

A grant to Dr. John C. Flanagan by the Division of Comprehensive and Vocational Education Research of the U.S. Office of Education is enabling us to capitalize on the Project TALENT data in order to develop a comprehensive guidance system. We are attempting to concentrate on the type of system which would be an integral part of a program of individualized education such as that visualized by Morgan and Bushnell (1966) in their proposal for designing an "organic curriculum."

To be comprehensive such a guidance system must serve the needs of <u>all</u> students. By integrating it closely with the basic instructional system at all academic levels, educators will be able to assist each student to acquire necessary personal information, information about life opportunities available to him or her, prerequisite problem solving skills in planning, decision making and management so that each one will be helped to formulate and pursue appropriate goals. Within such a framework, guidance becomes "the professional use of a science of purposeful action within a specific structure of education (Tiedeman and Field, 1962, p. 483)." Included also are assumptions that students are capable of learning how to contribute to planning their careers and should be involved in making decisions which influence their destinies.

A second way in which such a guidance system must be comprehensive is that it must complement the other activities of the educational program in which it functions so that the total program attempts to meet <u>all</u> the needs of <u>all</u> students. By labelling this system as "vocational guidance" while defining it as a system which seeks only to help students select an appropriate vocation, we would be limiting its comprehensiveness. To avoid any such restriction perhaps

we should follow Katz's (1968) suggestion and label it as "career guidance" instead. His paper prepared for the National Vocational Guidance Association's "Reconceptualization Project" indicates that he believes the word "career" incorporates all possible patterns of choice at any given point in time and refers to the totality of life style. Lewis (1968) suggests that the term vocational guidance is much preferred by those who see the function of guidance as being the efficient allocation of the nation's human resources. On the other hand, the advocates of guidance, without the modifier "vocational", view its function as involving the provision of any assistance necessary for helping each student develop his potential.

By focusing on students' needs in order to help us specify the system's objectives and evaluative criteria, we are attempting to use a systems approach to the design, development, and evaluation of this comprehensive guidance system. To identify general groupings or clusters among the student needs, our preliminary investigation has included review of existing guidance programs and of the professional literature--including follow-up studies of school graduates and dropouts--as well as observation of the decisions faced by students currently enrolled in individualized and regular instructional programs. We are postulating on the basis of this investigation that a comprehensive guidance system must contain the 12 components listed below.

1. Orientation-in.

   Goal: for each student to acquire the various kinds of information, understandings, overt behaviors, and attitudes they need in order to function successfully both in a new educational system and in the specific school setting in which that system operates.

2. Personal assessment.

   Goal: for each student to know and understand the status of his development with respect to abilities, interests, physical and social characteristics and values in the areas of education, vocations, social behaviors, citizenship, learning behaviors, and use of leisure time.

3. Personal choice opportunities.

Goal: for each student to know and understand the variety of opportunities available for personal involvement. The six areas for consideration encompass vocational, educational, citizenship, leisure-cultural-recreational, learning, and social opportunities.

4. Personal problem solving skills.

Goal: for each student to develop and use skills which enable him to solve problems by making decisions and plans wisely and implementing these.

5. Personal problem solving.

Goal: for each student to make and implement personal decisions and plans by integrating the knowledge and skills achieved in guidance components 1 through 4, Important here are experiences which enable students to formulate their goals and their plans for meeting these goals. Students must be aided to relate the instructional objectives in their programs of studies to their long-range goals. As students manage their performance toward these immediate and long-range goals, the continuous progress characteristic of individualized education is attained.

6. Prescribed learning experiences.

Goal: for each student to have assistance to resolve specific learning, intrapersonal, and interpersonal problems which are impeding his or her current progress and development. The number of such learning experiences is manifold. Examples are activities for behavior assessment and modification as well as for providing information on specific jobs, schools, courses, etc.

7. Orientation-out.

Goal: for each student to acquire the various kinds of information, understandings, overt behaviors, and attitudes they need in order to function effectively when they exit from an educational system or a specific school setting. Student needs here will vary, dependent upon what they anticipate doing after they terminate--e.g., entering the world of work, attending an institution of higher education, dropping out without specific plans, having a family, enlisting in the military.

8. Monitoring and possible modification of aspects of the educational system.

Goal: to provide assistance from adults and technology so that each student ir that system will be able to formulate and to progress toward agreed-upon goals.

9. Monitoring and possible modification of school personnel.

Goal: to provide assistance from adults and technology so that communication with, and possible in-service training of, school personnel will be maintained so that each student will be able to formulate and to progress toward agreed-upon goals.

10. Monitoring and possible modification of home and neighborhood factors.

Goal: to provide assistance from adults and technology so that communication with, and possible learning activities for, parents will be maintained so that each student will be able to formulate and to progress toward agreed-upon goals.

11. Monitoring and possible modification of community resources.

Goal: to communicate with community representatives (e.g., health, social, and welfare agencies; businesses and industries) so that each student will be able to formulate and to progress toward agreed-upon goals.

12. Research and evaluation.

Goal: to conduct experimentally-controlled studies for the evaluation of guidance and counseling techniques and procedures, follow-up studies of graduates and dropouts, analyses of changes in the characteristics of the student body so that each student will be provided with up-to-date, evidence-supported information and assistance.

We are attempting to compile a body of techniques and procedures which can be used to implement these possible components of a comprehensive guidance system. Teaching learning units, counseling personnel contact with individual students or with groups of students, computer monitoring, or on-line computer assistance are some of the available techniques. We hope to be able to integrate, and evaluate the effectiveness of, some of the currently available techniques and procedures related to each component. Where ones are not available we anticipate doing some developmental work not to exhaust the range of possible strategies but to provide ones which will permit experimental comparisons of the relative effectiveness of a few alternate strategies. Such experimentation necessitates the development and refinement of criterion instruments related to the behavioral objectives and student outcomes outlined for each system component.

Examples of Project TALENT Implications

The Project TALENT data bank of information collected from schools and students regarding student characteristics, educational experiences, and subsequent activities is facilitating analyses which suggest improvement in educational policies and practices and in guidance programs. In addition TALENT data can provide an on-going accessible base for the career-guidance and counseling of students. In order to illustrate the possible implications of the TALENT findings for improvements and developments in a guidance system, four of the aforementioned components will be briefly reconsidered.

1. Research and Evaluation. Project TALENT serves a two-fold function here. First, its findings vividly clarify some of the major guidance needs of students. These findings provide school personnel with evidence against which to check, and perhaps recommend changes in, their existing guidance programs.

   For example, the Project TALENT study indicated that only 18.9% of boys who indicated in the tenth grade that they were planning one of thirty occupations as a career following graduation planned to pursue that occupational goal three years later. Only 31.4% of the twelfth grade boys reported that their goals were the same one year later. These findings which have been validated by studies other than TALENT (cf. Hansen, 1967; Donaldson, 1968) suggest that students need more effective career-guidance assistance.

   A second function of Project TALENT relevant to this component is that it provides a prototype of a follow-up study. School districts desiring to conduct follow-up research on their students can profit from a close study of the methodology behind TALENT and might wish to implement selected parts of this monumental study.

2. Personal problem solving skills. In order to help students acquire and practice planning and decision making skills required for making career choices wisely, a "decision-making simulation experience" using the Project TALENT data bank has been proposed. As one part of this activity, a student will be given information on the personal characteristics (e.g., abilities, interests, values, physical characteristics, etc.) of a hypothetical person and will be asked to use appropriate TALENT data to make key decisions which formulate career goals and plans for that person. This student will be able to check the reality-value of these decisions by comparing them with those actually made by a composite group of Project TALENT subjects who had personal characteristics like those of the hypothetical person. By eliminating the need for partners or groups, we hope to be able to avoid the unrealities of the "game" concept and, therefore, have students perceive this as a reality-testing experience not confounded by unnecessary competition.

3. Personal problem solving. The guidance programs of many schools can provide only limited individual planning assistance to students because of the lack of expectancy data based on follow-up studies of former students. If tests similar to those used in Project TALENT are administered, data from Project TALENT can be utilized until such time as more localized predictive-discriminative information is available. Normative data such as are available in the TALENT study serve useful comparison purposes allowing students to investigate their profiles of developed abilities and interests in terms of the actual educational and vocational choices made by TALENT students with similar characteristics.

Similar comparisons of test scores can result in students receiving probability information estimating their probabilities for entering different career fields. Students must be helped to accept a balance of confidence and skepticism relative to such information as well as to

understand that their present performance levels can be changed. Those who find themselves faced with low-probability goals must be given opportunities to identify the abilities which produce these probabilities and be allowed to improve their status levels if they so desire.

4. Prescribed learning experiences. With the type of utilization of Project TALENT data described under the previous component, consideration can be given to the development of guidance programs which capitalize on the information processing capabilities of a computer. Here a computer would be programmed to match student test data and TALENT predictive data and to combine this with student goals and plans. On the basis of this processing specific recommendations would be made to students. These recommendations would be prescribed learning experiences intended to help them resolve educational and vocational planning problems they might be experiencing. For example, specific job information, direct reference to resource materials or to community resource personnel available for job visitations, or notification of a group counseling activity on vocational problem solving might be some of the recommendations stored in the computer. A computer monitoring system such as this would constitute an effective detection device for alerting counseling personnel to students who seem to be experiencing personal career planning problems.

A Recommendation to Vocational Educators

One of our basic purposes in developing and evaluating parts of a comprehensive vocational guidance system for individualized education is to identify behavioral objectives and related student outcomes for all system components. Using these as references, school personnel should be able to compare them with objective indicators of their students' needs in order to select system components and specific guidance techniques and procedures to consider implementing in local school settings.

The vocational educators connected with the area vocational center noted earlier in this presentation are following this approach using some of our initial work. Guidance personnel from the school districts involved are recommending research and development on parts of four of the twelve components in order to try to help prospective vocational students meet their educational and vocational planning needs. It is anticipated that elements of the following four components will be individualized to their students' characteristics and investigated: personal assessment, personal choice opportunities, personal problem solving skills, and personal problem solving. The Project TALENT data bank will be utilized to develop a discriminative-predictive tool to assist student goal selection and planning.

If this investigation is conducted, it is hoped that vocational educators in other settings will study this type of approach and be able to use this investigation's findings to improve guidance programs. Apparently this guidance-related problem exists not just in one California vocational center. A survey of fifteen Georgia area vocational schools came to this conclusion:

> The data indicated that the current performance of student personnel services in area schools was inadequate and was not meeting the needs of the students. (Bottoms, 1966, p. 42)

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