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ABSTRACT

This paper examines the relationships among guidance and counseling, vocational education, and research and development historically, currently, and in terms of future possibilities. The evolution of change is traced from the beginnings of the century (when guidance and counseling, then vocational guidance, was joined with vocational education in responding to the social and manpower needs of the day) to the present situation in which vocational educators and guidance and counseling personnel differ on the emphasis of occupational preparation and manpower responsibilities versus the broadly conceived concept of personal competence in self-awareness and decision-making. Suggestions are offered for ways to narrow the gap between vocational guidance and vocational education by broadening the view of guidance to include a concern for decision-making, self-concept, life styles, values, and leisure. Some of the significant research and development efforts of the last decade are discussed including career development theory, computer-based systems, specification of goals and objectives, measurement of career development, and exemplary projects and programs funded under Part D of the Vocational Education Amendments. Finally, an inventory of future research and development needs outlines some problem areas and suggests research directions for vocational guidance. (NJ)

Guidance and Counseling, Vocational Education, Research and Development

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The title of this background paper implies a comprehensive perspective across several dimensions of interest: guidance and counseling, vocational education, and research and development. In order to look at the relationships among these areas, it is necessary to consider them historically, in the present, and in regard to future possibilities. Specifically, the following topics will be addressed:

-- Guidance and Counseling in Relation to Vocational Education: Some History

-- The Current Relationship Between Guidance and Counseling and Vocational Education

-- What the Future Relationship of Vocational Guidance to Vocational Education Might Be

-- R&D Efforts Relating Guidance and Counseling and Vocational Education during the Past Decade

-- Needs for R&D in the Future Relative to Guidance and Counseling and Vocational Education

It is important for the reader to recognize that in the various sections of this paper, several points may be caricatured for emphasis. First, when guidance and counseling or vocational guidance as practiced by school counselors are referred to they are used to exemplify the viewpoints and practices of the counseling profession. This distinction is made in comparison with a vocational educator's approach to illustrate in the latter sense a position of persons who practice vocational guidance,

not necessarily as professionally trained counselors, but as a set of behaviors integral to accomplishing the goals of vocational education. These are not seen as positive and negative positions but as reality based differences which have affected the conceptualization and practice of vocational guidance in this country. While opposing positions may be considered overdrawn here, the fundamental differences which underlie the positions of guidance and counseling professionals and those of vocational educators remain real.

A current example of the above differences between guidance and counseling practitioners and vocational educators can be illustrated by the recent (August 1, 1974) testimony of Bottoms on vocational guidance, exploration, and placement relative to the Vocational Education Amendments of 1974. The amendments to which Dr. Bottoms addresses himself are those within the legislation sponsored by the American Vocational Association and thus reflective of a vocational education position relative to the outcomes of vocational guidance. After a comprehensive overview of the characteristics of his view of vocational guidance, exploration, and placement he concludes by stating that:

> if a title pertaining to vocational guidance, exploration and placement were included in any new vocational education legislation, the enrollment in vocational education and resulting satisfactory student placement would grow at a rate consistent with the increase in real dollar growth of the program (Bottoms, 1974, p. 24).

In many ways the underlined portion represents the nub of differences between the positions of guidance and counseling personnel and those of vocational educators as these are discussed in the paper. As viewed by vocational educators, vocational guidance should relate quite directly to enrollment in vocational education and subsequent occupational choice.

As viewed by guidance and counseling professionals, such an outcome is too limited a conception of vocational guidance although it is a legitimate option. Guidance and counseling personnel would agree that vocational guidance should assist students to consider vocational education more effectively than has been true in the past, but would further indicate that vocational guidance must be seen as helping students consider a whole range of options for educational and occupational choice, not just those in which vocational education is a major factor. This principle of broad, free, and informed choice can be illustrated by some selected introductory concepts to the Career Guidance and Counseling Act of 1975; in a sense the guidance and counseling legislative position about vocational guidance, sponsored by the American Personnel and Guidance Association, which responds to the Vocational Education position as reflected in Bottoms' testimony. These would include:

> Section 101 (1) the strength of the Nation rests, in part, upon natural differences in individual talents and upon the freedom of each individual to develop and express these talents in a unique way,.....
>
> (3) preservation of the individual's integrity disavows any type of prescriptive guidance which commits the individual to particular directions,.....
>
> (6) (2) promote an understanding of <u>educational and occupational options</u> among individuals served..... (American Personnel and Guidance Association, 1974)

Finally, it is important to note that guidance and counseling personnel and vocational educators would likely view the relation of guidance and vocational guidance somewhat differently. The vocational educator might see these two terms as essentially synonymous--the major substance and practice of guidance is vocational guidance. For the guidance and counseling practitioner, however, these two terms are not

synonyms. Guidance is usually considered a broader term describing both a philosophy of purposeful action and a set of services designed to operationalize such a philosophy, e.g., individual counseling, group work, testing, referral, information retrieval. In 1962, Hoyt defined guidance "as that part of pupil personnel services--and therefore of elementary and secondary education--aimed at maximal development of individual potentialities through devoting school-wide assistance to youth in the personal problems, choices, and decisions each must face as he moves toward maturity" (p. 692). Such a definition is basically still correct in the guidance and counseling practitioners' view. Thus, guidance concerns transcend the vocational to deal with a broad spectrum of personal, social, and educational issues faced by youth. In such a view, the vocational aspects of guidance, usually called vocational guidance, have a narrower focus than guidance per se. Vocational guidance, then, is a process within the broader rubric of guidance by which an individual is assisted in choosing and adjusting to a vocation as well as making effective use of present educational experiences connected to such further choices.

Guidance and Counseling in Relation to Vocational Education: Some History

Conventional wisdom assigns the beginnings of guidance and counseling in America to the first decade of the twentieth century. This was the middle stages of the Industrial Revolution in this nation, a period of heavy immigration--particularly along the Eastern seaboard--and a time when adequate education for children and effective placement of persons into our rapidly growing industrial complex were becoming social imperatives.

As part of a network of social reform efforts being generated by the problems of economic and personal welfare current at the time, rudimentary

forms of guidance and counseling had spontaneous birth in several parts of the country almost simultaneously. However, it was the work of Frank Parsons in Boston which was destined to receive the major share of credit for founding guidance and counseling. Clearly, the work of such persons as William Rainey Harper on "The Scientific Study of the Student," G. Stanley Hall on child study, Hugo Munsterberg on occupational choice and worker performances, Dewey on restructuring education, or Jesse B. Davis and Eli W. Weaver on educational and career problems of students, each made a contribution to creating a climate susceptible to the assumptions and procedures on which Parsons' work rested. Parsons is considered the founder of guidance and counseling in America because of the posthumous publication of his book Choosing a Vocation in 1909 in which was set out a clear formulation as to how one might assist another in choosing an occupation. This book and the techniques elaborated were really extensions of work Parsons had been conducting with adolescents since about 1895 or so in an effort to help them identify or "diagnose" their capabilities and choose jobs in which reasonable chances of success could be expected.

Parsons' formulation consisted of three steps:

> First, a clear understanding of yourself, aptitudes, abilities, interests, resources, limitations, and other qualities.
> Second, a knowledge of the requirements and conditions of success, advantages and disadvantages, compensation, opportunities, and prospects in different lines of work.
> Third, true reasoning on the relations of these two groups of facts (Parsons, 1909, p. 5).

This schema defined the elements of what has been known since as an actuarial or trait and factor approach to counseling. Such a position assumes that the individual could be described as possessing certain traits (interests, skills, aptitudes, etc.), that different occupations

or educational alternatives can be described as requiring different patterns of these traits, and that by merging the two through a process of what he described as "True Reasoning" a choice would occur.

From 1909 until the present, Parsons' formulation has spurred research and developmental efforts flowing from his first two steps. The first step has stimulated psychometric efforts to identify and measure individual characteristics. The second step has stimulated attention to the acquisition and use of occupational information. Together the use of tests and information with clients promulgated in this approach has had a continuing effect upon guidance and counseling practices till the current time.

It is important to note here that what we have been describing as guidance and counseling began in fact as vocational guidance. Its goals and procedures were reasonably clear as they focused principally upon assisting persons make occupational choices. The original intent of Parsons and his contemporaries was not oriented to the range of personal-social adjustments incorporated later as the province of guidance and counseling practitioners.

Vocational education, while responding to the same kind of reformist flavor that gave at least partial impetus to guidance and counseling, really antedated the latter. As the industrialization of the United States escalated during the late 1800's criticisms of public education as too bookish, too elitist, unrelated to the actualities of life became frequent and strong. In 1862, the Morrill Act was passed setting aside public lands to support agricultural education (at that time still the dominant form of vocational education outside the urban areas in most of the nation), gave impetus to experimental farms, and to professional agricultural

education. In 1871 U.S. Commissioner of Education Eaton advocated introducing commercial subjects into the public schools. Morrill, among others, in 1876 recommended the support of practical, manual, and industrial education in order to distribute migrants among the occupations and industries which needed their labor. Through the latter part of the nineteenth century, the AFL and other labor groups as well as the National Education Association joined in advocating the extension of comprehensive vocational education programs throughout the nation, an outcome which was given significant momentum by the Smith-Hughes Act of 1917 (Herr, 1972).

While others spoke of the economic and practical values of vocational education, Dewey (1900) believed that such education also served exploration goals and was an opportunity for workers to learn of the social and cultural background of their vocation as well as the skills involved. That idea was echoed and extended by others concerned not only about vocational training per se but also the needs to attend to the civic and the vocational intelligence of young workers.

Stephens has contended that:

> To many leaders of the vocational reform movement...it was apparent that vocational education was but the first part of a package of needed educational reforms. They argued that a school curriculum and educational goals that mirrored the occupational structure created merely a platform and impetus for launching youth into the world of work. What was clearly needed to consummate the launch were guidance mechanisms that would insure their safe and efficient arrival on the job. Without guidance experts it was argued, other efforts at reform would be aborted..... Therefore, in the name of social and economic efficiency, the argument continued, the youth who had been carefully trained would also have to be carefully counseled into a suitable occupational niche (Stephens, 1970, p. XIV).

Thus, for the first decades of the twentieth century, guidance and counseling (really vocational guidance) was joined with vocational

(industrial) education in responding to the social and manpower problems of the day. Parsons, Jane Addams, Stratton Brooks among others joined forces to get both vocational guidance and vocational education embedded in the schools. At the joint meeting of the National Society for the Promotion of Industrial Education (NSPIE) and the fledging National Vocational Guidance Association (NVGA) held in Grand Rapids in 1914, John Dewey and George Mead told the participants that vocational training and vocational guidance normally linked together.

During this period, vocational guidance tended to emphasize a "tryout-through-training" approach with much emphasis placed upon occupational information. The information available was highly objective, only minimally related to the psychological appraisal of the individual, and delivered through counseling which was essentially directive and advice-giving in substance (Miller, 1973). According to Williamson, vocational educators predominated as vocational guidance practitioners in the early decades of the 1900's. Their confidence in work descriptions as adequate bases for vocational choice and their lack of training in psychology tended to restrict the expansion of guidance and counseling (vocational guidance) to the provision of information, largely untested in validity, without commensurate attention to the analysis of the individual (Williamson, 1965). In essence, the first step of Parsons' formulation was abandoned in favor of step two. Paterson (1938) in speaking to the "genesis of modern guidance" indicated that the vocational guidance movement had fixated at the level of vocational information. Williamson has argued that this situation obtained until at least 1950 when the National Vocational Guidance Association broadened its objectives from essentially the acquisition and proffering of occupational information

to a more emphatic inclusion of concern for mental health. In sum, Williamson contends that vocational educators abandoned Parsons exploratory use of psychological techniques of analysis and substituted the identification of "externalities" for objective description of both the individual and of vocations.

In the first two decades of the twentieth century, then, vocational guidance emphasized the study of occupations rather than the study of individuals, vocational educators predominated as vocational guidance practitioners, and vocational guidance and vocational education were largely seen as complementary components of a total effort to distribute students and others across the burgeoning occupational structure.

Following World War I, however, vocational guidance and vocational education lost their initial partnership. The demise of this relationship rests, at least partially, with the unwillingness of the National Education Association (NEA) to view vocational education and vocational guidance as parts of a unity. Indeed, in 1918, the NEA accepted a craft rather than a technical training emphasis in vocational education and a conception of guidance for education rather than for jobs conception of vocational guidance (Stephens, 1970).

From the 1920's to not more than a decade ago, guidance and counseling and vocational education continued to draw apart from each other in practice and in assumption, although counseling in fact was recognized and supported with "vocational education" funds by the George-Dean Act of 1938.

Through the 1930's, 1940's, and 1950's guidance and counseling became the province of school counselors (guidance counselors) whose functions tended to broaden and change as various educational movements

came into prominence, e.g., progressive education, life adjustment education. Vocational guidance was part of the repertoire of school counselors but by no means the central focus of their activity. At the same time, vocational educators continued to provide vocational guidance but to a restricted clientele, one principally composed of students taking vocational education courses and as such a relatively small portion of the total student population.

In one sense, two independent approaches to vocational guidance tended to arise in the 1920's and the 1930's: that provided by school counselors (guidance and counseling) and the other provided by vocational educators and specialists employed by the U.S. Department of Labor.

During the 1920's, 30's and 40's, vocational guidance as practiced by school counselors became increasingly responsive to several forces. One force was the growing knowledge of individual differences, the awareness of personality dynamics in vocational choice and work adjustment, and the general influence of a psychological approach to vocational guidance. A second force, also psychologically related, was a growing developmental view of the individual. Reinforced by such perspectives as those of Dewey, Stratemeyer, and the so-called Progressives, American education took on "the rhetoric of child-centered pedagogy" (Cremin 1961). During this period, progressives applied Freudian concepts to child study in the schools. Their efforts focused principally on mental health rather than on skill preparation in the schools except for that occupational education sponsored by and largely confined to definitions promulgated by the Smith-Hughes Act. Even more of a developmentalist nation was espoused by the advocates of a life Adjustment approach to education.

This approach advocated student learning of facts across fields of knowledge related to specific problems which recur in life, that the artificial barriers between school life and the life of the world beyond the school should be minimized, and that the elements of each life situation had a cumulative effect with implications for early childhood, later childhood, youth and adulthood development and thus for educational experiences. While using leisure time wisely and earning a living were among the persistent life situations with which students had to cope, life adjustment education related them to the affective life of the child and to longitudinal processes rather than to the more narrow definition of acquiring task skills in specific occupations as did vocational educators. A third force which affected perspectives on vocational guidance (or to be more correct, guidance and counseling) was also a residual of the child study movement and, indeed, the influences of psychoanalytic thought upon it. This perspective tended to challenge vocational guidance or guidance and counseling as information-giving, advocating instead therapeutic treatment or psychotherapy as the processes of choice.

While the direct effects of the three forces cited upon guidance and counseling practitioners (school counselors) are not easy to document, it is fair to suggest that they collectively tended to tie guidance and counseling more to an educative than an occupational mission, to a diagnostic-clinical rather than vocational and information-giving approach to students, and to the psychological or affective rather than performance concerns of the person.

On the other hand, vocational educators and their brand of vocational guidance were receiving a somewhat different form of stimulus. The "Great Depression" of the 1930's had affirmed the importance of job

training in the various federal programs (CCC, etc.) instituted during that time for the occupationally displaced. Vocational educators were active in developing such programs. More importantly, perhaps, the U.S. Department of Labor published the Dictionary of Occupational Titles and instituted the Occupational Outlook Service giving a level of comprehensiveness and credibility to occupational information unavailable prior to this time. The Minnesota Stabilization Research Institute, as well as other similar agencies, undertook studies of vocational choice and adjustment in efforts to identify and demonstrate methods of educational industrial rehabilitation of workers dislodged by industrial changes. Among the outcomes of this activity was the development of new tests of vocational capabilities (Crites, 1969). Upon entrance into the Second World War, the application of psychometrics to the selection and classification of personnel assumed massive proportions and the expertise of vocational educators was instrumental in the development of training programs for an increasingly technical military establishment.

These experiences, like those cited earlier, tended to cause vocational educators and their perspectives on vocational guidance to be strongly imbued with a market demand philosophy. To a greater extent than guidance and counseling practitioners, vocational educators viewed vocational guidance as a mechanism for matching man and job or man and vocational education curriculum. Such an approach tends to emphasize the importance of individual competency or aptitude for available training or jobs as the criterion which vocational guidance should address rather than individual preference, interests or values, the criteria more likely to be seen as primary by guidance and counseling personnel.

Following World War II, a series of events unfolded which began to lay a base for vocational guidance as practiced by guidance and counseling practitioners to find an accommodation with that practiced by vocational educators. However, that route has not been linear and has experienced several cul de sacs.

One of these discontinuities had to do with the reassessment of educational priorities in the 1940's and 1950's. Immediately after World War II, the U.S. Office of Education had entered on a process of meetings which attempted to find solutions to the criticism that secondary education was "failing to provide adequately and properly for the life adjustment of perhaps a major fraction of the persons of secondary school age" (Gremin 1961, p. 335). These meetings recommended greater educational attention to functional experience in the areas of practical arts, home and family life, health and physical fitness, civic competence and a supervised program of work experience for most high school youngsters. Indeed, the George-Barden Act of 1946 provided the federal support to make possible many of these emphases. A decade later Conant (1959) also strongly supported the importance of vocational education--in particular the availability of a wide range of vocational and technical courses which would be introduced or eliminated as employment conditions changed and the importance of male and female high school students having an ultimate vocational goal. In addition, he advocated that counselors be significantly increased in number from the elementary school forward and that among other duties they be charged with helping students develop individualized sequences of courses (irrespective of such labels as college preparatory, general, vocational, business) leading to higher education or marketable skills upon graduation.

Events during the 1940's and 50's, however, turned guidance and counseling personnel away from a vocational guidance to an educational guidance focus. The massive growth in higher education precipitated by the return of millions of veterans from World War II abetted by the educational benefits of the "G.I. Bill" as well as a rising belief among many that a college education was attainable to the masses and a sure pathway to dignity and affluence caused guidance and counseling practitioners to be absorbed in guidance for educational choice rather than for work choice. During much of this period, college was seen as an end in itself--its intermediate vocational implications were not typically viewed with priority concern. These social trends were given further impetus by the Russian launching of Sputnik in 1957. The American educational enterprise was brought under intense analysis and seen as wanting by many verbal and influential critics. Charges of lack of substantive rigor in the sciences and in attention to the academically gifted were rife.

In 1958, the National Defense Education Act was promulgated to offset such criticisms. Among its provisions was the support for and training of counselors to identify (through testing) and nurture the gifted and talented vis-á-vis further education, particularly in the hard sciences. Thus, perceived manpower needs for scientifically educated persons caused guidance and counseling persons to move further toward an educational rather than an occupational focus. The latter was not really precluded but it took second seat to the social priority of having school counselors help students select and prepare for college. There is perhaps no other time in this century when guidance and counseling personnel and vocational educators were further apart in their perspectives on the importance of or the procedural aspects of

vocational guidance then during the late 1950's and the first half of the 1960's. Ironically, however, the early 1960's also escalated the conditions for a possible convergence in the views of guidance and counseling personnel and vocational educators relative to vocational guidance.

The early 1960's saw a spate of antipoverty programs focus upon the occupational preparation of the disadvantaged, the out-of-school and out-of-work youth, the unemployed and the underemployed. Many of these programs failed because they tended to focus upon meeting the needs of the labor market rather than the needs of individuals. As this realization dawned upon decision-makers and legislators, significant manpower policy shifts began to emerge. Manpower policies took on an affective quality as well as a performance-based one. Emphases in legislation and in program operations began to shift from a prime concern on developing a competent person (as defined by occupational requirements) to a greater accentuation on developing a sense of personal competence (as defined by technical skills as well as individual capability to choose and plan) (Herr, 1974).

These trends were reflected in legislation dealing with nonschool and with school agencies. For example, the Manpower Development and Training Act of 1962 introduced the importance of providing counseling and placement activities as major components of its programs. It had become obvious that people being retrained or being taught occupational skills needed the opportunity to relate these to their self-attitudes, changes in personal habits, emotional responses to life situations, attitudes toward work, experiences in planning, and transition to new jobs. Following closely upon the lead of the MDTA, the Economic Opportunity Act also stimulated programs dealing with both the skill development and the affective components of employability. By 1965, legislation

had broadened the definitions of the clientele for Employment Services counselors and for rehabilitation counselors and emphasized the need for moving from simple job advising to the development of the vocationally unsophisticated. As has been indicated elsewhere (Herr, 1974) the fact that much of the legislation enacted during the early and middle 1960's was nonschool in its focus suggested the feeling that schools and school counselors had not prepared students to cope with the expectations and requirements of the labor market. They also symbolized doubts that the formal educational structure--kindergarten to grade twelve--and school counselors were able to function effectively with other than college-bound academic students.

Nevertheless, the Vocational Education Act of 1963 was passed. While this legislation continued the occupation-specific support of the traditional categories--agriculture, home economics, distributive occupations, trade and industrial, business and office education, as well as practical nursing--it also gave a significant push to work-study programs, residential schools, area vocational education programs, and general education as it could be tied vaguely to specific needs in vocational education. More importantly, while the Act specifically stated that "vocational guidance and counseling were to be provided to students enrolled in vocational courses and those planning to enroll," it did nothing to refute the observations of the panel of consultants appointed by President Kennedy which laid the base for the Vocational Education Act of 1963. They stressed the need for school counselors who "have exceptional understanding of the world of work and its complexities. What is obviously needed is a counselor who meets all the requirements of a professional background in pupil personnel services and who at the same time is a

specialist in occupational information, vocational guidance and counseling." In short, such a perspective added credibility to a professionally trained school counselor attending to vocational guidance as a significant part of his or her professional repertoire rather than having school counselors do "Academic guidance" and vocational educators do "Vocational guidance."

While guidance and counseling practitioners continued to be criticized during the middle and late 1900's, for their lack of emphases on vocational guidance and/or occupational choice, movements in this direction were accelerating. Part D, EPDA, of the Higher Education Act Amendments of 1968 provided support for programs or projects to train or retrain educational personnel in such fields as guidance and counseling (including occupational counseling). More importantly, the Vocational Education Act Amendments of 1968 asserted the need for an expanded concept of guidance and counseling to include services which facilitate job choice and job placement. In addition, it stressed prevocational activities extending into the elementary school an emphasis which clearly had implications for the work of the school counselors.

In a sense, the Vocational Education Act Amendments of 1968 re-affirmed the reciprocal needs of vocational education and vocational guidance for each other. Such an interrelation was expressed by Law, a prominent vocational educator, in his appraisal of the Vocational Education Act Amendments of 1968 when he stated (Law, 1969):

1. Career guidance and orientation is needed by everyone.
2. Vocational guidance needs a regular place in the school curriculum.
3. There can be no satisfactory program of vocational guidance without vocational education

He further contends:

> If the vocational guidance program were longitudinal, a continuing process, as it has been described in career development theory, there would be an ample opportunity for an individualized program. From a common core of group activity, individual students would move toward the development of occupational knowledge, concept of self, and vocational competence in any variety of ways, largely determined by each person's qualities and drives (Law, 1969).

Such a conception accepts a much broader view of vocational guidance than that focused on the choice of vocational education per se or the choice of a job at a particular point in time. Rather it embraces a longitudinal and developmental perspective which is concerned not only with the choice of work or vocational education, although they are significant options which all students should have an opportunity to consider, but also with self-clarity, understanding of the interaction of educational choice and career implication, and a range of life options including those addressed by vocational education and those which are not. While it is not clear how acceptable such a position is to the mass of vocational educators, it is fair to suggest that it is generally consonant with a stance acceptable to counseling theorists and researchers as well as most counselors.

This potential rapprochement between vocational education and vocational guidance has not eliminated the criticism which continues to focus on the availability and focus on the latter. For example, Campbell's national survey of vocational guidance (1968) demonstrated that counselors were greatly overextended in their attempts to fulfill guidance service expectations and that most of their time was committed to helping students choose colleges. The Sixth Report of the National Advisory Council on Vocational Education (1972) called the status of counseling practice shaky and shabby. They, then, outlined sixteen recommendations for

improvement, particularly in regard to the strengthening of vocational guidance. The continuing issues around which debate tends to center have been described by Super (1974) in the following manner:

I. Is guidance to be for manpower utilization or for individual development?

II. Is guidance to be for occupational choice or for career development?

III. Is guidance to consist of information dissemination or of counseling?

IV. Is guidance to be a service of laymen or of professional counselors? (p. 76)

With only a tinge of caricature, vocational educators would likely emphasize as the most appropriate the first part of each of these alternatives while vocational guidance practitioners who are not vocational educators or who have received professional training in counseling would likely endorse the second emphasis in each of these issues.

Whether such issues will be fully resolved and thus allow school counselors and vocational educators to achieve a reciprocity and respect for the competencies and philosophy reflected in the other is moot. However, one sign that compromises are being affected is the emergence during the past six years of a duly constituted division within the American Vocational Association which is populated to a high degree with professional counselors and counselor educators. Many of these persons also hold responsibilities in the American Personnel and Guidance Association or its major Division dealingwith vocational guidance, the National Vocational Guidance Association. Through bridging both organizations and keeping communication open about the issues cited a moment ago, it is conceivable that vocational guidance will be seen with a clearer focus over the next decade than has been true for much of the last half century.

The Current Relationship between Guidance and Counseling and Vocational Education

As has been indicated in the previous section, for most of the past half century guidance and counseling and vocational education have gone their independent ways although there have been occasional flirtations. In large measure, it is fair to say that as guidance and counseling has broadened its goals and its technologies, subsuming vocational guidance or the vocational aspects of guidance as but one of its priorities, the breech between guidance and counseling and vocational education has widened.

For much of its history, vocational guidance has concerned itself with predicting occupational choice or occupational success from test scores of an individual prior to entry to the labor market. The primary emphasis has been upon matching the aptitude for performance from test profiles of persons seeking employment to the requirements of available options and attempting to maximize the degree of fit made. In this position, vocational guidance has primarily confined itself to one point in time in the life of the individual, either entry to the labor market or readjustment through an immediate choice after occupational dislocation. Further, it has used as its major reference point the requirements of the occupational structure rather than individual preferences or values. To the degree that such a perspective has operated in guidance and counseling, vocational educators could be sympathetic to it even if they were essentially isolated from guidance and counseling more broadly conceived.

Since 1950 or so, this traditional view of vocational guidance using an occupational model has been significantly challenged. In that year, Hoppock, as President of the National Vocational Guidance Association

announced that the traditional view of vocational guidance was "crumbling." In 1951, Super recommended revision of the official National Vocational Guidance Association definition of vocational guidance which had stood since 1937. It was "the process of assisting the individual to choose an occupation, prepare for it, enter upon it, and progress in it." The 1951 revision amended this perspective by defining vocational guidance as "the process of helping a person to develop and accept an integrated and adequate picture of himself and of his role in the world of work, to test this concept against reality, and to convert it into a reality, with satisfaction to himself and to society."

This definition does not emphasize the provision of occupational information at a particular point in time or a simple matching of man and job. Rather it emphasizes the psychological nature of vocational choice. Indeed, Super's definition effectively blended into a unified whole the personal and vocational dimensions of guidance, which previously had been arbitrarily separated. The resulting base for current conceptions of vocational guidance is self-concept oriented. It focuses primarily on self-understanding and self-acceptance to which can be related the occupational and educational alternatives available to the individual (Herr and Cramer, 1972).

Extending from this point has been the subtle but important shifting from occupational to career models in the vocational guidance literature. The occupational model was described several paragraphs ago as the primary emphasis prior to 1951. Obviously, its influence has continued to be highly significant but it has increasingly competed with a series of broader perspectives on choice spawned by the career model.

By definition, career embraces a longer time frame than does

occupational choice. Indeed, the concept of career embraces prevocational activity such as the effects of educational programs and options upon students as well as the post vocational activity manifested by the retired or the pensioner working part-time. Prime considerations in a career model are not the difference among occupations but rather the continuity or discontinuity in the vocational development of persons, the interactions of educational and occupational choices across time, the sequence of occupations, jobs, and positions held.

Career models introduce several aspects into the conception of vocational guidance which are not apparent in the occupational model. One of these is the idea of developmental vocational guidance (or counseling). In such an emphasis the vocational guidance practitioner is not concerned alone with immediate choice of training or job but is rather concerned with intermediate and long-range goals and how immediate choices relate to such goals. Thus student values, the clarity of the self-concept, personal planfulness, exploratory behavior vis-a-vis choice options become important variables to be considered in vocational guidance. In addition, personal behaviors, attitudes, and skills of different kinds are seen as appropriately developed by vocational guidance practitioners if they are not present in the student's behavioral repertoire.

Such conceptions of vocational guidance are not only concerned with a student's potential performance on some set of occupational tasks but focus as well on the attitudes and knowledge which facilitate or impede the choosing, learning and using of such technical skills. More importantly, perhaps, such a model reinforces a view of vocational guidance as being more than a set of services available at some specific decision point or available for persons who, for some reason or other,

are experiencing choice conflicts or work adjustment problems. In sum, career models emphasize the role of vocational guidance in systematically educating students or others to the knowledge, attitudes, and skills which will be required of them at future choice points, in planning their educational program, in selecting and preparing for work rather than intervening only after it has been clearly established that particular persons have not acquired such skills and behaviors and are now experiencing problems because of these deficits in their behavioral repertoire.

During the 1950's and 1960's, then, many theorists and researchers among the ranks of vocational guidance practitioners began to assert that effective and satisfactory placement in the occupational structure is not confined to the quality of one's preparation for some set of occupational tasks or to the accuracy of information about possible choices. Rather such outcomes are related to the clarification of personal values and attitudes which motivate one to gain occupational skills, to want to contribute, to view oneself as competent to choose. Specifically, vocational guidance had begun to elevate a concern for self-understanding to the same level of importance as occupational understanding or task mastery. In this view, the objectives of vocational guidance are seen as the development of the individual, the growth of personal competency in regard to occupational/career choice and preparation rather than the needs of the labor market.

Wrenn (1964) summarized such a perspective well in his observations that:

> The planning for which the vocational counselor can be held responsible is planning for work satisfactions from both employed and nonemployed activity.....to suggest the new emphasis is to say the counselor helps the student to define goals, not merely to inventory

> capacities. And it is clear that these must be life goals, not occupational goals only. There must be a dove-tailing of work in employed and nonemployed settings if life is to be meaningful to the majority of people..... It is imperative that vocational counselors accept responsibility for helping students see their work life whole. (p. 41)

Such perspectives in the late 1950's and early 1960's were part of a significant period of growth in school counseling, as spurred by the NDEA Titles VA and VB, and the consonant need to reassess what goals and directions such services should include. This was also the later edge of the dramatic period of change in counseling spurred by Carl Roger's challenges to conventional clinical approaches and the resulting shifts to client-centered, nondirective techniques which deemphasize testing, prediction, and the use of information. Finally, this was the early stage of the rise of career development theory and its major concern for the role of the person's self-concept as the stimulus to decision-making and commitment to various occupational and life goals. While each of these could be treated in great depth, suffice it to say that the interaction of these events and developments continued to be incorporated into conceptions of vocational guidance; there was a continuing assimilation into perspectives on vocational counseling those emphases which had previously been seen as the concern only of educational counseling or personal counseling.

Vocational guidance during the 1960's was increasingly discussed in terms of its relationship to the process of decision-making. Tyler (1961) suggested that such counseling concentrates on the willingness to make choice and commitment in accord with a clear sense of ego identity. Moore (1961) argued that counseling, especially at the secondary school level, is concerned primarily with the making of choices by the counselee.

Samler (1968) advocated that vocational counseling should be a learning experience in decision-making. Brammer and Shostrom (1960) contended that vocational counseling allows counselees to discover facts about themselves and the working world "in a process whereby occupational choice limits are broadened and effective vocational planning really becomes a part of life-planning." Boy and Pine (1963) summarized many of the significant issues concerning perceptions of vocational guidance as follows:

> The proponents of "vocational guidance" state quite emphatically that the school counselor's first job is vocational counseling and that therapeutic counseling is purely secondary. Yet in the light of the Super, Roe, and Ginsberg theories of vocational development, with their stress on the significant role of the self-concept in the process of vocational development, how can vocational counseling be divorced from therapeutic counseling? If, as Super indicates, the process of vocational development is essentially that of developing and implementing a self-concept, can effective vocational counseling take place just through dispensing and discussing occupational information without considering the psychodynamics of the self-concept? If vocational counseling is a primary task, should not school counselors provide the student with the opportunity to reach new insights, to explore and see his self-concept, to develop and to implement it? (p. 225)

In many ways, current conceptions of vocational guidance are efforts to develop technologies of counseling by which the various goals of such efforts might be achieved. In truth, there is no one current approach to vocational guidance, there are several. Crites (1974) has recently identified these under the rubric of "career counseling" (a subtle but growing nomenclature which may have more palatable implications for some than "vocational guidance" but still addresses the same domain). The approaches described include:

1. Trait-and-Factor Career Counseling -- Although there are refinements in assessment devices, and the quality

of information, this approach still reflects the essence of the original Parsonian model of vocational guidance. Emphasis is placed on diagnosis of the students or clients presenting problems. This process involves extensive data collection about the attitudes, interests, aptitudes, family background, work history and other characteristics of the counselee by the counselor. This material is converted by the counselor into a set of interpretations about possible future actions the client might take. The client is helped to sort these actions out or match them with available alternatives and then to act upon some choice among them.

2. Client-Centered Career Counseling -- Earlier perspectives in this approach, which is essentially the counseling paradigm of Carl Rogers, argued that if a client becomes well-adjusted psychologically, then he or she will be able to solve whatever career problems are encountered without specifically attending to them in career counseling. This approach to counseling primarily emphasized the importance of the quality of the relationship between the counselor (as defined by creating conditions of congruence, understanding, acceptance) and the client as the major variable in freeing the client to become actualized, be able to make choices, gain in self-understanding, etc. Little importance and, indeed, some negative connotations are attached to testing or the use of information during counseling except

as these are clearly desired by the client. If occupational information is used, it must follow certain client-centered principles. Among them are:

(1) Occupational information is introduced into the counseling process when there is a recognized need for it on the part of the client...

(2) Occupational information is not used to manipulate or influence the client...

(3) The most objective way to provide occupational information and a way which maximize client initiative and responsibility, is to encourage the client to obtain the information from original sources, that is, publications, employers, and persons engaged in occupations...

(4) The client's attitudes and feelings about occupations and jobs must be allowed expressions and be dealt with therapeutically...

Relatively, little change has occurred in this perspective although Patterson (1964), a client-centered advocate, has allowed that career counseling can be distinguished from other types of counseling because it focuses "upon a particular area--or problem--in an individual's life." But it is not clear how current conceptions of client-centered career counseling actually inform clients about occupations or relate their personal characteristics to such information

without violating the very attitudes on which client-centered counseling rests.

3. Psychodynamic Career Counseling -- Fundamentally, an application of psychoanalytic (Freudian and Neo-Freudian) conceptions of man and the use of diagnostic categories flowing from such a theoretical base, this approach to career counseling emphasizes counselor interpretations of the roots of client decision-making problems. Various diagnostic and testing strategies are used. Occupational information is used which primarily emphasizes the need gratifying qualities of different forms of work. This approach is also a matching-man and job approach but uses personal psychodynamic needs and potential occupational gratifications as the basis rather than the more common conception of interests, aptitudes, and occupational requirements.

4. Developmental Career Counseling -- The approach stemming from the theoretical basis of Super's career development approach, stresses the thematic nature of personal behavior in viewing possible future actions. Diagnosis is conceived in terms of understanding what patterns of behavior the person displayed in the past and what these may mean for future behavior. An emphasis is upon counseling the client for planfulness, readiness for choice. The process involves reality-testing information which the person has assembled about himself

and about various options under consideration. It is assumed that persons are both rational and emotional and that career counseling must provide an opportunity for both to be displayed and considered. Questions such as the following represent much of the direction of this approach to counseling.

> "What sort of person do I think I am? How do I feel about myself as I think I am? What sort of person would I like to be? What are my values and needs? What are my aptitudes and interests? What outlets are there for me with my needs, values, interests and aptitudes?"

Testing, problem appraisal, interviewing, occupational information are each used interactively to facilitate the outcomes of this approach.

5. Behavioral Career Counseling -- Theoretically based in learning theory, behavioral career counseling uses such techniques as counselor reinforcement of desired client responses, social modeling and vicarious learning, desensitization, discrimination learning to assist counselees achieve certain specified goals. Diagnosis in this approach is less related to the use of standard measurements and more concerned with analyzing the characteristics of individual environmental interactions to identify behavioral cues and reinforcers. In addressing themselves to vocational problems, behavioral career counselors are likely to analyze quite specifically

> the behavioral deficits of the client and to create conditions or experiences which will provide appropriate learned responses or skills. This specific analysis of client needs vis-a-vis some set of goals extends to the use of occupational information and its potential for helping the client learn specific concepts or experience certain material important to goal attainment.

Increasingly, these approaches to career counseling are in some fashion embedded in a program of counselor activities which go beyond the one-to-one interaction of counselor and client. The development of planned experiences in didactic or simulated modes to teach clients certain information about themselves, or occupational alternatives, or skills in decision-making or values clarification have become reasonably commonplace. Consultation about student development or employability by counselors with teachers, employers, and others the use of group processes in vocational guidance the use of simulation and gaming as well as computer-based systems of information retrieval and analysis each represent other current emphases in the provision of vocational guidance by guidance and counseling professionals.

It is unlikely that these five approaches to Career Counseling (Vocational Guidance) or the emphasis on the self-concept or specific decision-making strategies just identified are commonly used by vocational educators "doing" vocational guidance. If such vocational educators are trained professional counselors or professional counselors serving in a vocational education setting (e.g., an AVTS), then this statement may be a caricature of reality. However, for the most part,

it seems reasonable to suggest that vocational educators "doing" vocational guidance use somewhat different reference points than do professional counselors "doing" vocational guidance. That is, the former has as a major emphasis occupational competence while the latter emphasizes the broadly conceived concept of personal competence. For the former purpose, a trait and factor approach offers a congruent vehicle for helping persons fit themselves to available vocational education or occupational options. For the latter purpose, which emphasizes choice and preference across a broader spectrum of life options and periods, selection of vocational education or an occupation may be appropriately considered as one of several immediate or intermediate choices related to attaining some future goal but they are less likely to be considered the final criterion of concern.

Vocational educators more likely than professional counselors, although there are significant exceptions to this point, would advocate that persons doing vocational guidance need to be trained in economics and sociology as these relate to manpower and human resources, to employability and job markets. Vocational educators would also advocate more field experiences in work settings or, indeed, significant work experience itself for those who are going to "do" vocational guidance. Other emphases of specific concern to vocational educators pertinent to vocational guidance would be consideration of the meanings of work; work experience outside of education; accumulation of knowledge regarding all possible educational opportunities, not just those regarding colleges; knowledge of how best to collect and use information; manpower trends, including collection of local trends in jobs.

Perhaps the best indication of the current perspectives on vocational education's conception of vocational guidance is that found in the Sixth Report of the National Advisory Council on Vocational Education entitled "Counseling and Guidance: A Call for Change." Among its recommendations are:

-- State departments of education require work experience outside of education for all school counselors who work with students and prospective students of vocational education

-- Individuals with rich backgrounds of experience in business, industry, and labor, but with no teaching experience, be infused into the counseling system

-- Counselor education institutions require at least one practicum devoted to an onsite study of the business-labor-industry community

-- Decision makers in education make extensive provision for the training and employment of a wide variety of paraprofessional personnel to work in guidance under supervision of professionally qualified counselors

-- Increased efforts be made to improve sound counseling and guidance services to members of minority populations and other disadvantaged persons

-- Job placement and follow-up services be considered major parts of counseling and guidance programs

-- Career development programs be considered a major component in career education, both in legislation and operating systems

Professional counselors, who are not vocational educators, would refute several of these recommendations quite directly and would acknowledge the feasibility or logic of some other recommendations only partially. For example, the requirement of work experience outside of education has been a recommendation directed to counselor preparation off and on for several decades. The questions posed by professional counselors to this issue is: Are all forms of work experience equal? How much work experience is sufficient? What are the outcomes of such work experience that you expect counselors to obtain: insight into interdependence among jobs, the range of jobs, differences among occupations, requirements for work success, worker morale? Is it reasonable to expect that holding paid employment for several years in an occupation--whether in business or construction or wherever--will really provide the counselor with significant insights about the 30,000 different occupations in the American employment market among which persons might choose?

Professional counselors would similarly respond to the second recommendation cited. While persons with rich backgrounds of experience in business, labor, and industry might be good candidates for training as vocational guidance practitioners, knowing a great deal about some segment of the labor market in itself is insufficient to be effective in vocational guidance. The latter also requires an understanding of human development and decision-making, personal appraisal and values clarification as well as other behaviors important to helping persons choose.

Professional counselors might relate to the issue of paraprofessionals in two ways. First, they would likely say that we have been asking for such assistance for some time from legislators and educational

administrators. They are reluctant to provide such support and if they do it is at the cost of a sufficient number of professional counselors. Second, they would likely say that while paraprofessionals have a contribution to make to vocational guidance, they can not do it alone nor can students be dissected into vocational concerns which paraprofessionals can address and other concerns which professional counselors need to address.

Professional counselors would likely suggest that they have been trying to improve their services to minority and disadvantaged populations but much of their success depends upon improved responses to these groups from educators, including vocational educators, employers, and society at large. Thus, they might well say that counseling such constituencies for choice makes no sense if actual opportunities are denied to them, or if educational institutions or employers are unwilling to make changes accommodating the characteristics of these persons.

Professional counselors might likely concur that job placement and follow-up are appropriate parts of counseling services but they would further indicate that unless schools are willing to expand counseling staffs or add a network of paraprofessionals it is impossible, given current counselor-student ratios, to accomplish these goals too. There are, of course, exceptions to this position and, indeed, there are instances where school counselors have incorporated these services into their ongoing efforts.

Professional counselors would also likely concur that career development programs be considered a major component in career education, both in legislation and in operating systems. However, they would further contend that career development is not synonymous with entry

into vocational education or with occupational choice but embraces a broader set of concerns focused on self-awareness, decision-making effectiveness, etc.

This analysis of the current relationships between vocational guidance as viewed by school counselors and vocational guidance as viewed by school counselors and vocational guidance as viewed by vocational educators remains in a state of creative tension. While there is validity of sorts in each position and while there are instances of cooperation between the professional organizations in each field--the American Personnel and Guidance Association and the American Vocational Association--there is yet no indication of a significant merging of the two viewpoints. Perhaps such an accommodation is not totally possible unless significant attention can be given to the alleged philosophical concerns which distinguish the thinking of vocational educators and guidance/counseling personnel: manpower responsibilities, quality occupational preparation versus freedom of choice for each individual, expansion of both the bases for decision-making and the variety of choices made available to the individual. Whether these viewpoints are truly dichotomous is moot but starting from one or the other of these viewpoints does take one along a somewhat different set of perspectives about vocational guidance.

To round out this perspective on the current viewpoints about vocational guidance as seen by the vocational educator and the professional counselor, it is worth noting that each of the professional groups (the APGA, AVA) has currently introduced different pieces of legislation into the federal Congress dealing with vocational guidance (or career guidance, if you prefer). Neither is overtly campaigning against the

other but the fact that two pieces, rather than one which both supports, are on the Congressional docket speaks eloquently to the separation of viewpoints still unbreeched.

What the Future Relationship of Vocational Guidance to Vocational Education Might Be

Determining what the future is likely to contain is a very risky challenge. Outlines of what might be and extrapolations of the present are places to begin identifying such prophecies. However, it is very difficult to know whether necessary events will take place to reinforce the current trends or to put in place what might be.

If vocational guidance and vocational education are to come into a closer relationship in the future, it seems apparent that several basic things must take place. First, guidance and counseling practitioners must take vocational education options into systematic account as part of the choice network available to clients. Second, vocational educators must broaden their conception of vocational guidance beyond choosing among vocational education options or specific occupations.

As Katz (1973) has indicated, "the content of vocational guidance is defined as the opportunities for choice that society permits among educational and occupational options" (p. 89). In practice, however, such opportunities can be significantly reduced if students are not informed of certain categories of them, or if appropriate information describing particular kinds of opportunities is not available, or if some forms of information or option are appropriate only for certain types of students. Such possibilities seem to be realities as vocational education is viewed by some school counselors. In these instances, only selected students in the student population are informed of or encouraged to consider vocational

education possibilities. Thus, vocational education is not really an option provided to all students or about which all are informed. Its availability and focus is discussed with only a comparatively small segment of the student body who meet prevailing stereotypes of what a vocational education student should be.

It is important to note here that selective information or encouragement about vocational education is also a function of information available or physical facilities for vocational education. Frequently, school counselors have no specific information about the differences in vocational education or what kind of student finds success in the different options. In many instances, all vocational education curricula are seen as the same, requiring the same characteristics of students and yielding the same goals.

Compounding the problem of poor information about vocational education is the matter of facilities and quotas. In some instances, if school counselors were to become advocates for vocational education or introduce information about its curricula and outcomes to all students, existing vocational education facilities could not accommodate the students selecting such options. In frequent instances, school counselors become gatekeepers to vocational education, trying with poor information or understanding, to winnow out the appropriate number of students to meet the existing quotas for students in auto mechanics vs. drafting vs. carpentry, etc. (Baker and Herr, 1973). Where particular vocational curricula are significantly over or under demanded, school counselors are encouraged to try to shift student interests and selection from the seriously oversubscribed curricula to those which fewer students wish to pursue so that vocational education student populations can be balanced across available opportunities.

For those counselors philosophically inclined, such quota systems and seeming coercion of students into curricula which are not their major interest does considerable violence to the principle of free and informed choice. More pragmatically, if the school counselor is placed in a situation as the "gatekeeper" for vocational education quotas, but without solid information about student characteristics likely to lead to success in different options, the only alternative is to "fly by the seat of one's pants," a position not likely to lead to respect for vocational education as a significant choice possibility for many students.

A further problem for the school counselor is the emphasis of vocational education on preparation rather than exploration. At the secondary school level, there are theorists and others who believe that most students are not yet prepared to make the long-term commitment implied by a choice of a vocational education curriculum but need the opportunity for exploratory flexibility. Aside from the emergence of some cluster approaches in vocational education, most vocational education curricula have been rigid in their concern about the acquisition by students of specific occupational skills. The intent of such curricula is not exploration of an occupation but specific preparation in it. The assumption by vocational education is that students choosing a vocational education curriculum has already undergone exploration and is now ready to commit themselves to the sequential skill development and requirement of training hours (2,000 or so) seen as requisite to occupational entry.

On the other hand, a rapprochement between vocational guidance (as practiced by school counselors) and vocational education would seem to require more than better information, more vocational education facilities.

a larger exploratory component in vocational education, and more flexibility in moving among vocational education opportunities. It also requires a somewhat broader view of vocational guidance than many vocational educators have typically embraced. Among the dimensions of such a view of vocational guidance would be:

1. Efforts to Develop Decision-making -- Vocational guidance is concerned with helping students develop decision-making skills as well as defining, getting, and using information appropriate to different choices.
2. Concern for the Self-concept -- Decisions and plans express the self-concept of the chooser thus it is necessary that vocational guidance help the student achieve self-understanding before or as a part occupational awareness. Thus, information about occupations needs to go beyond the bare bones facts of salaries or work content to include how these might relate to aspirations and values or would provide satisfaction for psychosocial needs.
3. Concern for Life-styles, Values, Leisure -- Education, leisure, occupation or career all interact to create or influence a life-style. The way the student comes to deal with such an issue is related to the clarity and characteristics is personal values. Vocational guidance, then, can not attend to occupational choice without examining the educational or personal/social implications which it holds--its relation to personal values.
4. Free Choice -- Vocational guidance is directed not to specific subsets of choices (vocational education) alone within a

> larger category (educational curricula) but to the range of choices available, the personal characteristics and aspirations to which these choices need to relate, and the likely outcomes of specific choices. Vocational education should certainly be seen as such a choice option but its validity as a choice lies in its comparative advantages over other possible choices in relation to specific personal criteria.

Other emphases underlying current concepts of vocational guidance (as revealed in the professional counseling literature) could be added but those cited point up some of the concerns leading to another question which vocational educators and guidance and counseling practitioners must deal with:

> Does vocational guidance have professional integrity in its own right or only as it is integral to vocational education?

Obviously, guidance and counseling practitioners would say that vocational guidance does have integrity outside of the context of vocational education. Indeed, they are busily engaged in developing a technology by which this integrity can be made more substantial. The next section will identify some of the R&D efforts of the last decade aimed in such a direction. The future will likely see more activity of this sort. Thus, as school counselors extend a technology of vocational guidance built around the four elements mentioned two paragraphs ago, vocational educators will need to be assisted to view their contributions to such a technology if a unifying and unified view of vocational guidance is to develop in the future.

Among the elements of a technology of vocational guidance which have been emerging and will likely continue to do so in the future are the following:

1. Programmatic Approaches to Vocational Guidance -- Such vocational guidance programs are likely to focus on preparing students to deal with the process of educational and occupational choice-making rather than on the act of choice. These programs typically involve self-understanding, acceptance of personal responsibility for choices, interrelationships among choices--educational, occupational, and personal/social, the nature of contemporary serial careers, the relationships between careers and life-styles, the use of exploratory resources, the characteristics of planfulness, the ways by which personal and career characteristics can be differentiated and/or evaluated. Typically, such programs have been conceived and conducted outside of vocational education. Yet, vocational educators and the information available to them about vocational education options, student outcomes from such options and their relationship to employability and occupational persistence or success are valuable inputs to such programs.
2. Specification of Vocational Guidance Objectives -- Krumboltz (1966) indicated almost a decade ago that "it is crucial that we conceptualize human problems in ways that suggest possible steps that we can take to help solve them." Further, "they must be translated into specific

kinds of behavior appropriate to each client's problems so that everyone concerned with the counseling relationship knows exactly what is to be accomplished." Such a perspective has led vocational guidance practitioners to be more specific about their objectives and the behavioral expectations they hold for students. This specificity, in turn, will likely lead to increased attention to how different vocational guidance emphases or approaches can be tailored to individual needs. Here again the vocational educator's expertise in defining incremental instructional objectives in relation to occupational skill development could be translated into the development of sequentially planned vocational guidance objectives.

3. The Use of Simulation Techniques -- To an increasingly high degree, counselors are using various simulation techniques--gaming, role-playing, films, problem-solving kits, computers to create approximations of reality against which students can test their characteristics or with which they can rehearse different coping behaviors. The vocational educator's skills in designing trade competency tests or work samples fit such schemas quite well. Blending such skills with those of school counselors could significantly enhance the content and range of simulation techniques used in vocational guidance.

4. Effects Upon the School and Employment Environments -- Many advocates contend that vocational guidance should serve as a vehicle for environmental change. Part of such a charge

requires the vocational guidance practitioner to stimulate diverse and flexible learning experiences attuned more selectively to individual needs than is presently the situation in many secondary schools. Further, such a charge includes encouraging employers to reexamine job entry requirements and drop those which are unrealistic or actively seeking job placements for minorities, handicapped, or other student groups whose movement into the occupational structure is delayed or made difficult in some other way. Vocational educators have skills in job development as well as in creating a diversity of types of skill preparation which in collaboration with school counselors could significantly enhance the likelihood of having such goals met.

In sum, if vocational guidance and vocational education are to effect the relationships important to achieving the full potential of each, certain accommodations need to be met. The form of the accommodations seem reasonably clear but their likelihood of occurrence is much less predictable.

R&D Efforts Relating Guidance and Counseling and Vocational Education During the Past Decade

During the past decade, a number of significant efforts designed to strengthen or having the potential to strengthen vocational guidance have occurred. Some of these have also directly or indirectly addressed the relationship between vocational guidance and vocational education. Each of the emphases cited has had a Research and Development history, although the degree to which each is a research effort or a development effort or both varies as do the support bases underlying them.

Career Development Theory

Since the early 1950's, several researchers have been investigating the array of attitudes, behaviors, skills, understandings which comprise what has been labeled as career development. Borow (1961) has suggested that the theories and research efforts subsumed by this label are in reality "a search for the psychological meaning of vocationally relevant acts (including the exploratory vocational behavior of youth) and of work itself in the human experience." More recent perspectives on career development theory would suggest that their field of concern has enlarged over the last decade to embrace the interrelationships between career development and personality development more broadly conceived, between educational choice and achievement and work satisfaction or satisfactoriness, between self-concepts and views of life alternatives, including careers.

Prominent among research activities pertinent to career development has been the attempt to isolate and describe the personal behaviors which need to be acquired if career development is to proceed smoothly, primarily with continuity, rather than be impaired or delayed. In turn such developmental tasks confronting persons at different life stages have been studied in regard to their predictability of later success with career choice and adjustment issues of many kinds.

Several researchers and their colleagues and students have been active in generating research of a longitudinal nature which has served as the base for current knowledge of career development. Foremost among those associated with career development theory is Donald Super of Teachers College, Columbia University. Super and his colleagues have been engaged in the Career Pattern Study since the beginning of the 1950's. This

longitudinal study has followed an original group of ninth grade students through high school, young adulthood and into their middle 30's in an effort to identify and verify the relationships between various situational elements, personal characteristics, choices, satisfactions, and vocational patterns. The Career Pattern Study has given the shaping and the substance of the self-concept in choice a prominent position in the modeling and practice of vocational guidance. In addition, the Career Pattern Study has spawned measurement devices, computer assisted systems for information retrieval, models of individual counseling and other activities which have become incorporated into the technology of vocational guidance (Super, 1957; Super, Starishevsky, Matlin and Jordaan, 1963; Super, 1969).

Also prominent in career development theory is the work of David Tiedeman, formerly at the Center for the Study of Careers at Harvard and now at the University of Northern Illinois. While using a somewhat different conceptual model than Super's work, Tiedeman and his colleagues attempted to validate many of the hypotheses generated by the Career Pattern Study. In addition, Tiedeman's work added clarity to the stages making up anticipation of career choice and the stages comprising induction, the point at which an individual actually tries to implement what one has chosen. This longitudinal research, too, has stimulated the development of new approaches to measurement, a computer mediated decision-making system, and more comprehensive explanation of vocational behavior (Tiedeman and O'Hara, 1963; Tiedeman, 1961).

A third major longitudinal perspective on career development has come from the work of Gribbons and Lohnes, Regis College and the State University of New York at Buffalo respectively. Examining particularly

the concept of Readiness for Vocational Planning, these researchers have validated some of the conceptual output from the Career Pattern Study as well as examined the application of stochastic and canonical correlations to the understanding of longitudinal perspectives on vocational behavior. This approach has added further to models of vocational development and measures of its specific characteristics (Gribbons and Lohnes, 1969).

A fourth longitudinal study is the Vocational Development Study currently under way at The Pennsylvania State University with the present author as principal investigator at the moment. Begun by the late Joseph Impellitteri in 1966, this study has the largest sample, over 3,000 persons, of any of the current longitudinal studies. While it has not generated the theoretical impact of the previous studies mentioned, it has examined a large number of the hypotheses generated by the other studies, stimulated the development of a work values inventory, studied the characteristics of the career development of men and women, and pioneered in the application of Path Analysis in the study of career development (Impellitteri and Kapes, 1971).

There have been many other studies during the past decade--e.g., Project TALENT--which have contributed to the understanding of the career development and choice-making of youth and adults. In most instances, the research has been cross sectional or limited in the number of variables studied. Space does not permit inventorying those here. Suffice it to say, that during the last two decades research efforts have begun to accumulate a theoretical base for the practice of vocational guidance. Prior to the accumulation of the explanatory insights of the research noted here, vocational guidance was instituted primarily on logical or atheoretical grounds rather than in relation to some explicit explanatory

system.

In addition to the affects of career development theory upon such efforts as the measurement of vocational behavior and the creation of computer-mediated systems, vocational guidance itself has come to be viewed differently over the past decade as a function of career development. For most of its history, vocational guidance has been seen as appropriately provided only at specific choice points--e.g., ninth grade, twelfth grade--or when one's development has gone awry and an explicit choice or adjustment problem has surfaced. In such a condition vocational guidance is seen as reactive to a problem or specific to an immediate choice which must be made. More recently, this perspective on vocational guidance has changed to accommodate a developmental approach. In the latter, vocational guidance is seen as a proactive, programmed approach to providing students and adults the types of knowledge, attitudes and skills which have been found to underlie such concepts as self-identity, career literacy, decision-making effectiveness. The conceptual frames for such programmed effort have largely arisen from the longitudinal perspectives found in career development theory.

Computer-Based Vocational Guidance Systems

Beginning in 1964, primarily stimulated by the research and development program authorized by the Vocational Education Act of 1963, there was initiated a number of computer-based vocational guidance systems. Three of them have already been alluded to:

> The Super/IBM Experimental Educational and Career Exploration System; The Harvard-Needs-Newton Information System for Vocational Decisions (Tiedeman); The Pennsylvania State University Computer-Assisted Career Exploration System (Impellitteri).

Other systems which became prominent during the mid- and late 1960's included:

American Institutes for Research Comprehensive Vocational Guidance System

Systems Development Corporation Vocational Counseling System

The Rochester Career Guidance Project

The University of Oregon GUIDPAK System

The Willowbrook Computerized Vocational Information System

The Palo Alto Computer-Based Course Selection and Counseling System

The Bartlesville Total Guidance Information Support System

The objectives and the comprehensiveness of these systems varied. For example, the objectives of the Harvard-Needs-Newton ISVD included the intent to develop in individuals interacting with the system the following:

1. An understanding of the process of decision-making and the psychology of career choice.
2. An accurate and comprehensive understanding of alternatives and their consequences with regard to the specific decisions confronting an individual at any given time.
3. An understanding of his personal characteristics including knowledge about his ideosyncratic value system and its consequences for decision-making.
4. A "sense of agency" or functioning belief by the person that he can choose and thereby become a determining agent in the course of his career, and that he assumes personal responsibility for the consequences of his choice.

On the other hand, The Pennsylvania State University CACE System had narrower goals focused only upon ninth grade boys interested in pursuing vocational and technical courses in high school. Objectives included:

1. An increase in level of knowledge about specific occupations.
2. An increase in self-initiated occupational exploratory behavior.
3. Increased ability to articulate and follow a conscious strategy for occupational exploration.
4. Increased exploration of occupations which maximize the individual's abilities and interests.

The Super/IBM system focused upon the need for students to have exploration experiences that:

1. Each student may broaden his knowledge of work and his personal occupational multipotentiality.
2. University or junior and technical college-bound students may explore curriculum preferences exclusive of occupational goals, but then relate them to occupational potentials.
3. A student can conveniently narrow his search for post high school training institutions which satisfy his curriculum preferences, career goals, and personal preferences.

The other systems cited are essentially derivations on the objectives noted in the three examples given. Some focus upon providing students accurate, complete, and relevant data for use in decision-making. Some

systems actually provide training to students in decision-making. Still others supervise and monitor student practice in decision-making. Some of the systems are geared to boys only or vocational education students only while others are concerned with boys and girls from all educational curricula.

Fundamentally, these systems began from the premise that decision-making requires appropriate and accurate information about educational, occupational, and personal dimensions. In addition, they typically assumed that the computer could manage the interaction of this information and produce in multimedia forms: slides, printouts, work samples. Further, students needed to be helped to develop a process by which they could sort out, weigh, and evaluate different forms of information available to them. To all intents and purposes, these elements constituted operational definitions of what vocational guidance really is and what its outcomes ought to be.

In many ways, the R&D efforts associated with computer-based vocational guidance systems stimulated the use of various forms of technology to extend the capabilities of vocational guidance practitioners and, more importantly, to focus upon the elements and requirements necessary to effective vocational guidance.

The Specification of Vocational Guidance Goals and Objectives

As a function of several factors--a rising concern for accountability, the application of "systems thinking" to human services, the models of vocational guidance generated by computer-based approaches, the expansion of career development theory, the expansion of behavioral approaches to counseling--the elements and objectives of vocational guidance received considerable attention during the past decade.

Seminal work in this area was accomplished by Krumboltz and his colleagues at Stanford. Krumboltz observed in 1966 that "it is crucial that we conceptualize human problems in ways that suggest possible steps that we can take to help solve them." Further, "they must be translated into specific kinds of behavior appropriate to each client's problems so that everyone concerned with the counseling relationship knows exactly what is to be accomplished."

Krumboltz pioneered concepts of counseling and of vocational guidance as representing the systematic application of social science to the achievement of specific goals. Fundamentally, this approach rested on the assumption that behavior is learned and that behavioral problems represent deficits in learning, incomplete or wrong learning. Thus, in order to decide upon the appropriateness of some set of counselor-client behaviors aimed at relearning or new learning, it is first necessary to determine what the client's problem is composed of or the elements necessary to reach some goal, e.g., the development of information-seeking behavior. Thus, Krumboltz and his colleagues provided significant insight into behavioral analysis and the creation of plans of vocational guidance and/or counseling which would achieve specific goals (Krumboltz, 1966; Krumboltz and Schroeder, 1965; Krumboltz and Baker, 1973).

The specification of behavioral deficits or requirements and the linkage of different vocational guidance approaches to correcting such situations extended beyond the relationship of counselors to student clients. Such specification also was applied to the discrete elements comprising different counseling or guidance techniques. One approach, microcounseling, attempted to isolate the counseling skills required to

accomplish different phases of the counseling relationship and to develop approaches to teaching these discrete skills to counselors in training. Such counseling skills might include, among others, the following:

1. Attending behavior
    a. Eye contact
    b. Postural position, movement, gestures
    c. Verbal following (counselors responding to a client's comment without introducing new data)
2. Reflection of feeling
3. Summarization of feeling

At another level, some institutions of higher education have systematically developed training programs around the analytical approach of microcounseling applied to the whole range of skills counselors need and then built specific packages to develop these. Michigan State University and Stanford University are examples of such approaches to counselor education (Horan, 1972).

The specification of vocational guidance goals during the last decade has been extended to embrace the professional behaviors required for counselor certification in the state of Washington. In this plan school counselor certification rests upon behaviorally stated performance standards related to various client outcomes with which counselors should be able to cope. Some examples of the types of elements included in the plan include:

1.0 The counselor facilitates goal achievement of specific clients or client populations..... Included among the counselor's clients are:
    1.1 Students
    1.2 Teachers

1.3 Administrators

1.4 Colleagues

1.5 Parents

1.6 Community representatives

1.7 Employers

... ...

3.0 As appropriate, the counselor is able to elicit responses from clients and goal facilitators (1.1-1.2) which include one or more of the following:

3.1 Specific informational responses

... ...

3.2 General informational responses

... ...

3.3 Affective responses

... ...

3.4 Cognitive responses

... ...

3.5 Commitment responses

... ...

4.0 Together with a specific client or specific client population or goal facilitators, the counselor realistically (4.1 vs. 4.2) identifies the contributions he can make toward the achievement or approximation of specific goals:

4.1 Ideal goals

4.2 Realistic goals within a estimated time limit

4.3 Immediate goals

... ...

9.0 From with the framework of a selected rationale (8.9), the counselor interacts with specific clients or specific client populations and with significant elements in the

> client's life space in a manner which enables the client to achieve or approximate the goals (4.0) toward which both have agreed to work (Springer and Brammer, 1971).

Several R&D efforts during the past decade advocated specifying student behavioral objectives for vocational guidance. Indeed, such an approach is implicit in each of the approaches cited in this section. In 1971, the Ohio State Center for Vocational and Technical Education published such an approach under the title--The Systems Approach: An Emerging Behavioral Model for Vocational Guidance. This model extended efforts to delineate the elements of vocational guidance through advocacy of a ten-phase procedural model for vocational guidance programming outlined as follows:

Phase I -- Context Evaluation

Phase II -- Assigning Program Goal Priorities

Phase III -- The Translation of Goals to Student Behavioral Objectives

Phase IV -- Input Evaluation: Method Selection

Phase V -- Input Evaluation: Selection of Techniques

Phase VI -- Diffusion: Trial Implementation

Phase VII -- Process Evaluation

Phase VIII -- Product Evaluation

Phase IX -- Adoption

Phase X -- Recycling (Campbell, et al., 1971)

Much more could be said about the specification of vocational guidance and about the creation of behavioral objectives for its consumers. Certainly the trend has been accelerated under the thrust of Career Education since 1971. The basic point is that R&D efforts have stimulated attention to the outcomes one might expect various elements

or approaches to vocational guidance to be able to effectively foster. Unless such analyses are available it is not possible to consider vocational guidance as applied behavioral science, to create programs which model different combinations of vocational guidance elements, or be clear about the behavioral domains which vocational guidance addresses.

Measurement of Career Development

Until approximately the last decade, the major measurement instruments used by vocational guidance practitioners were the traditional ones of aptitude and interest. However, as career development theory evolved as an explanatory system for the behaviors--decision-making effectiveness, career identity, educational awareness, etc.--to which vocational guidance responds, new measurement forms began to emerge as part of different R&D efforts around the country. Major examples of these include:

The Career Maturity Inventory (Crites, 1973). Composed of an Attitude Scale and a Competence Test designed to assess such aspects of career development as:

- orientation to work
- conceptions of the choice process
- independence in decision-making
- preference for vocational choice factors
- involvement in the choice process
- self-appraisal
- occupational information
- goal selection
- planning
- problem-solving

The Cognitive Vocational Maturity Test (Westbrook, 1971). Consists of six subtests assessing occupational knowledge (fields

of work, work conditions, duties, the education and attributes required for various occupations) and job selection, the subjects' ability to choose the most realistic occupation for a hypothetical student who is described in terms of his ability, interests, and values.

The Career Development Inventory, Form 1 (Super and Forrest, 1973). Consists of three scales designed to assess aspects of vocational maturity: planning orientation (concern with choice, specificity of planning, and self-estimated knowledge of occupations), resources for exploration (knowledge and use of appropriate resources needed in planning) and information and decision-making (actual occupational information and knowledge of vocational decision-making principles).

The ACT Assessment of Career Development (American College Testing Program, 1974). Consists of 267 items distributed across eleven scales covering three major components of career development. These components include: Occupational Awareness, Self-Awareness, Career Planning and Decision-making. Specifically, the items assess career related knowledge as well as career related experiences in different occupational clusters

The measurement devices just cited have served to operationalize the specific behaviors and developmental tasks subsumed by career development theory. As such, they have provided behavioral descriptions

to which vocational guidance programming can attend as well as a cognitive map of the domains of concern to vocational guidance.

Exemplary Programs and Projects

In both the 1963 Vocational Education Act and the Amendments of 1968, there was a concern for innovation in vocational education curriculum, a base of prevocational activities, and a concern for improving vocational guidance. To that end, Part D, Exemplary Programs and Projects, of the Vocational Education Act Amendments of 1968 provided risk capital to finance innovative practices designed to impact upon vocational and prevocational education, vocational guidance and other areas of specific concern to occupational preparation. To a large extent the projects supported by Part D became the initial base for what in 1971 came to be known as Career Education. More specific to the purposes of this paper, however, was the fact that these projects created models of vocational guidance as a developmental activity complementary to and in some instances integrated with vocational or general education curricula. In addition, such projects stimulated the application of systems approaches to vocational guidance, collaborative activity between vocational guidance practitioners and other educators, an incorporation of career development theory into the design of vocational guidance activities, and the awareness that vocational guidance and vocational education had something to offer all students not just those entering the labor market directly from the secondary school or those pursuing vocational education.

The Programs and Projects supported by Part D occurred in every state and are too numerous to identify here specifically. Suffice it to say, that among the Projects making major contributions to the goals of Part D were those in the city of Denver, the State University System of

Florida, the Cobb County Public Schools in Georgia, the public schools of Oregon and many others throughout the nation.

Needs for R&D in the Future Relative to Guidance and Counseling and Vocational Education

While Research and Development in America pertinent to vocational guidance and vocational education has made significant strides in the past decade, there are still many issues and questions unresolved. Indeed, many of the emphases just cited must continue into the future. Beyond that requirement, however, an inventory of R&D needs for the future would include the following:

1. Career Development Theory -- Most of the hypotheses and, indeed, existing principles of career development have come from relatively small samples of middle class males. There is as yet no comprehensive perspective on the career development of women nor is there much systematic information pertinent to disadvantaged groups classified racially, ethnically, or geographically. Relatively little attention has been given to the career development of the rural poor as compared with the urban poor.

   Most of career development theory has evolved from descriptive rather than experimental modes with samples restricted in size and composition. As a result, few existing relationships and hypotheses about career behavior are unequivocal. Rather, various interpretations are made of existing findings without the benefit of validation or replication across samples divergent in characteristics.

2. Cultural and Economic Factors in Career Development -- Relatively little is known about the effects of economic or cultural change upon career behavior. While most career development theorists have addressed the importance of situational variables to career development, they have done so in abstract theoretical terms, rather than researched the effects of such conditions upon personal choice-making and commitments. This point can be extended in relation to the lack of inclusion in current career development theory of information about such behavior in cultures other than America. We know little about the socialization of career behavior in developing nations or, indeed, in many of the contemporary developed or post-industrial societies of the world. Obviously, one way of testing the effects of cultural and economic factors in career development is to study the fit of current American views of career development in societies with different economic characteristics or belief systems regarding work values, etc. As part of such analyses of the career development of different groups, it is necessary to identify those factors related to restricted socio-economic status or other variables which limit the promise of such youth to cope with skill mastery, attitude development, or achievement motivation and design experiences which can systematically overcome such deficits.

3. Measurement of Career Development -- With samples of restricted characteristics, typically not including women or comprehensive samples of minority persons, providing most of our insights into career development existing measures of career development are themselves limited in their sensitivity to career behavior. Thus, data collection inventories built upon the career behavior of restricted samples when applied to samples which might be quite different in their characteristics may miss or exclude material important to the latter. In all likelihood, a greater use of interview data rather than inventoried data would be useful in this regard although the logistics and costs of such approaches are formidable obstacles for most researchers.

4. Career Development Samples -- Most of the samples from which career development theory has been derived are composed of students. In the few longitudinal studies now being conducted the original student samples are maturing and proceeding through adulthood but relatively little has yet been published about other than adolescent exploration and the early stages of young adulthood. Thus, relatively little is known about the predictive validity of various patterns of career development in adolescence vis-á-vis the linearity of later career development, mid-career change or occupational dislocation.

5. Vocational Guidance Interventions -- R&D efforts in many cases have not described the type of career counseling or vocational guidance approach specifically enough to understand or replicate the intervention which has taken place in regard to some criterion--choice of vocational education, work adjustment, occupational choice or whatever. Aside from the extensive work accumulating about the efficacy of behavioral approaches to information-seeking and other exploratory behaviors pertinent to decision-making, little can be said specifically about the likely effects of different forms of vocational guidance or career counseling in relation to specific categories of student problem or need. While planned programs of vocational guidance are being developed their specific effects upon different student outcomes has not yet been established. Equally important is a lack of data about the long-term effects of different vocational guidance interventions. Most of the data available about the comparative advantages of one vocational guidance mode versus another is based upon the immediate outcomes which can be assessed at the termination of treatment rather than over time.

6. Vocational Education Information -- A consistent problem for counselors attempting to assist students in their choice of educational curricula is a lack of information about vocational education. R&D efforts could profitably be expended on determining the characteristics of those

students who find success in various vocational education options and the outcomes which they subsequently attain as a result of vocational education. It would also be useful to determine the relationships which exist between various patterns of student participation in academic and vocational education and their subsequent educational and work performance. As new fields of work emerge, how can worker trait requirements be identified so that curriculum design and vocational guidance can proceed on sound, informed bases?

7. Curriculum-Based Vocational Guidance -- In exemplary and other articulated curriculum projects, including those in Career Education, many of the objectives previously pursued by individual guidance practitioners are now integrated. It is important to assess the effects upon student exploration and personal insights curriculum-based vocational guidance projects have. As such findings are identified, the shifting of priorities in the interventions which non-curriculum-based vocational guidance activities should address will be clearer.

More specifically, within the scope of curriculum-based vocational guidance, several questions still remain open and require R&D efforts:

A. How should curriculum content be structured to include the career development/vocational guidance concepts to be communicated, the objectives to be realized, the appropriate learning sequence of the

material, and the ways by which individual accomplishment of goals can be evaluated?

B. What current academic experiences are most likely to lead to the specified goals and behavioral outcomes of career development/vocational guidance and how can their impact on students be strengthened?

C. Determine the relationships between academic subject matter and their application in various occupations or career clusters so that views of employment and the instrumental value of education can be reinforced throughout the total curriculum.

D. Using systems analysis techniques--including PERT, PPBS, MOB, CIPP--project the relationships between career development/vocational guidance and curriculum leading to different goals (college, technical preparation, vocational education, etc.), media and instructional styles, preservice and inservice needs to counselors and teachers, the integration of work experience with curriculum, the clustering of in-school and out-of-school experiences.

E. Determine how the concept of continuous education for all segments of the population can be integrated into curricula and develop strategies by which students can interrupt their formal schooling without stigma or penalty while pursuing particular career development goals.

F. Determine conditions by which student interests, readiness, and goals rather than arbitrary curriculum tracks can signal access to a wide range of instructional materials pertinent to career development: e.g., films, tapes, records, books, computer-mediated processes, self-controlled simulation or gaming.

G. Determine what kind of community and industrial resources contribute to the attainment of specific career development/vocational guidance behavioral goals, under what conditions, and for whom.

H. Examine the efficacy and the characteristics of simulated environments--gaming, work samples, problem-solving kits--which help students experience cause-effect relationships in regard to personal choice and planning.

I. Compare on different criteria of career maturity the status of youth who have had work experiences of different kinds with those who lack such experience. Ascertain whether youth with planned work experiences are more responsive to career planning than those who are exposed to simulated experiences.

J. Identify models which reflect patterns of schooling specifically responsive to the needs of women, differently advantaged populations, and different learner styles and develop their implications for institutional forms/structures as well as the organizational management of such educational experiences.

K. Inventory legal and legislative constraints as well as those restrictions attendent to union membership and access to apprenticeships which may impinge upon the creation of work experiences for large numbers of students, the blending of in-school and out-of-school experiences for particular students, or any proposed dimension of career development/vocational guidance. Design strategies by which such constraints can be removed.

L. Determine the relationships which exist between various patterns of academic and vocational education and subsequent performance in job families.

M. Examine ways by which training durations and time spent in vocational experiences can be made more flexible to accommodate individual differences.

N. What specifically are the vocationally relevant behaviors desired for youth?

8. Information on Occupations or Careers -- While considerable progress has been made during the past decade on developing information about occupations and careers which is responsive to the form and substance of the questions students cope with at different ages and educational levels, more remains to be done. In particular, R&D efforts need to be applied to developing occupational information sensitive to both the cognitive and affective dimensions which current career development/vocational guidance programs are incorporating. Then, such forms of information need to be related to

motivational behaviors, perceptual behaviors, attitudes and other predisposing sets found among students of different experiential backgrounds. Further, such informational materials need to be tested with different subpopulations for which they are intended to assess the degree to which they are generally sensitive to the vocational problems of these populations.

Related to such issues as those above are needs for R&D efforts to determine the characteristics of emerging occupations employing persons or different performance and interest characteristics as well as those areas in the technical and health fields, public employment sector, consumer and production services or other career clusters which suffer low visibility and need attention in occupational information.

More specifically, research needs to address such questions as Do students think in terms of careers or entry jobs, school subjects and college majors or clusters of interests? How do such perspectives bear on achievement motivations, vocational motives, occupational valuing as these bear upon later vocational planning and adjustment? How much information do students need before they can make a commitment at a given choice point? What are the effects of the tentative goal-setting of pre-adolescent youth upon later choice?

9. Youth Values on Decision-making, Work and Education -- A literature on worker alienation has emerged over the past

several decades. At the present time, however, it is not clear how or if such concepts have affected the thinking of youth. Nor is it clear how youth view decision stress or the increasing burdens of psychological responsibility being portrayed by many writers as emerging social problems. Are youth experiencing indecisiveness as a general behavior pattern? Is it restricted to career choice? How widespread is indecisiveness among student populations at different levels and of different characteristics? What are the characteristics which differentiate those who are guided by security from those who are risk-takers in decision-making? Are student values about work shifting dramatically? How? Are student values about education shifting? How? What forms of or modes of vocational guidance do youth most value or desire? What vocational incentives do youth currently find most attractive: contributions to other, to society, high income, prestige, much leisure, learning opportunities? In a shifting employment picture, can persons find significance outside of paid work if their physiological and security needs are met?

10. Counselor and Vocational Educator Characteristics Related to Vocational Guidance -- While counselor role and function studies have a long history, there are questions still open vis-a-vis vocational guidance which are susceptible to future R&D thrusts: The relation of counselor's socio-economic background to knowledge of career or occupations,

to attitudes toward decision-making and exploratory behavior, to counseling emphases related to college-bound vs. noncollege-bound students. The effects of counselor preparation in nonschool settings in terms of counselor behavioral outcomes, e.g., industrial internships, different amounts or types of paid employment, intern experiences in community and government agencies. The effectiveness of a counselor's vocational guidance skills as related to the amount and nature of previous occupational experience.

Rather than deal with extrapolations from other behavioral indicators, it would be useful to specifically address the vocational educators' concept of the counselor in terms of who he or she is and what is done. Similarly, it would be useful to tap counselors' concepts of vocational education. What are the common professional goals of each of these groups and what complementary competencies are required to meet them? How can vocational teachers assist their students to think more clearly about the meaning of their training experience in terms of planning and future choice-making? What is the direct influence of the vocational teacher on the career development of the student? What is the comparative effectiveness of different models of counselors and vocational educators working together to promote vocational development on students?

Summary

This paper has been an attempt to consider both historical and contemporary bases for projecting future research and development needs pertinent to vocational guidance. The emphasis has been upon unresolved questions or issues underlying vocational guidance broadly conceived as well as vocational guidance pertinent to vocational education. Suffice it to say, that much remains to be done.

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