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ABSTRACT

The first section of the guide contains the text of two speeches dealing with the current challenges of career education and the school counselor, presented at the 1972 New Jersey Regional Career Education Conferences. The second and larger section contains a variety of materials resulting from a series of conferences in 1973 aimed at developing goals and objective statements for career guidance and constructing a framework for a career guidance model which would emphasize student needs assessment. The materials include program management charts, descriptions of workshops, and the step-by-step development of a local career education curriculum. Worksheets and lists of concepts and outcomes covering various phases of career education are included. A chapter discusses the improvement of guidance services, listing objectives, outcomes, and activities in column format. Another chapter presents an introductory discussion of the development of a pre-counseling survey instrument and a draft of the instrument itself, prepared by workshop participants. A 64-page appendix offers descriptions and reviews of 24 career education assessment instruments for grades K-12, many of which are examined in detail. (MDW)

NEW JERSEY CAREER GUIDANCE GUIDE

1974

STATE OF NEW JERSEY
DEPARTMENT OF EDUCATION
DIVISION OF VOCATIONAL EDUCATION

STATE OF NEW JERSEY
DEPARTMENT OF EDUCATION
DIVISION OF VOCATIONAL EDUCATION
225 WEST STATE STREET
TRENTON 08625

REPORT OF
NEW JERSEY CAREER GUIDANCE CONFERENCES
1973-74

Gordon F. Law, Jr.
Editor

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FOREWARD

Close scrutiny of the history of the American educational endeavor over the past decade will reveal of a shift from an emphasis upon content for its own sake to a concentration upon utilitarian considerations. Within this transition is an increased emphasis and expectation for serving the individual. Implied in the expectation is the accommodation of individual differences in personal interests, goals, aptitudes and ambitions. For guidance personnel these are not new concerns. What is new and cannot be ignored is the challenge, from all fronts, for quality and responsiveness to student needs. From a counselor's viewpoint, a reconsideration of role and function is required.

Why, what, when, where and how to accomplish this has been a sincere concern of New Jersey counselors. Action, aimed at the career development of each individual, pre-K through Adult, was initiated in the early part of the 1972-73 school year. Results of mutual concern and joint endeavor by Division of Vocational Education staff and school district personnel are the reason for this publication. Content is part of an on-going effort to develop and implement a State model for career guidance.

Dr. Morton Margules,
Associate State Director
of Vocational Education

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Gordon F. Law, Jr.
Editor

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GENERAL INTRODUCTION

Career education is a form of education proposed by U. S. Commissioner of Education Sidney P. Marland, Jr. that involves a redirection of educational experiences--curriculum, instruction and counseling--to the preparation for economic independence, personal fulfillment, and an appreciation of the dignity of work. The general curriculum is done away with and 'academic' and 'vocational' curricula are blended into an entirely new curriculum. There are but two exits from schooling--continuing education and employment. All students in all grades are effected, as are adults seeking re-training. A wider range of occupational training opportunities are available and work experience programs are expanded greatly.

Career education is intended as an answer to the problem of many school leavers being utterly unprepared for gainful employment. The U. S. Office of Education has begun implementation of career education in several model sites, and local program development is on the increase.

Guidance personnel have a part to play in career education. The Sixth Report of the National Advisory Council on Vocational Education, in fact, finding numerous deficiencies in the career guidance efforts of counselors, makes the following recommendations:

> "Counselor education institutions require at least one introductory course in Career Education and at least one practicum devoted to an on-site study of the business-industry-labor community."

and--

"Responsible decison-makers embark on an immediate major campaign designed to upgrade the vocational knowledge and career guidance skills of currently employed counselors."

Another recommendation, not directed specifically to counselors. shows the path to be taken:

"Career development programs be considered a major component in Career Education, both in legislation and in operating systems."

The counselor will recognize the close relationship between career education and career development. Herr describes the relationship:

"At a gross level, Career Education represents a composite of which might be described as education for productivity (employability skills) and education for choosing (Career Development)." (Review and Synthesis of Research on Foundations of Career Education).

and

"Career Development is essentially the body of speculation and research which is focused upon understanding the above factors (self-characteristics, environmental alternatives (occupational, education, personal, social options) and the Decision-Making process itself) and others important to education for choosing."

The counselor must participate in this education for choosing (Career Development), his function being usually known as career guidance. Career guidance has traditionally involved such activities as the provision of occupational information to students, work with students in preparation for interviews and employment, and job placement. These are activities that the conscientious guidance counselor should be involved in already.

Career guidance is guidance and counseling at its best. The extension and intensification of career guidance services, with a new and higher priority placed on career guidance, is the change that comes with the implementation of career education.

This implementation of career education involves the reorganization and expansion of guidance staffs. Specialization of counselors and/or the employment of para-technicians may be in order. A Job Placement Counselor might concentrate on the development of jobs and the placement of students in them. A School-Industry Counselor could assist faculty and students by developing employer contacts, faculty locating sources of curriculum materials, guest speakers, and field trips. A School-Community Counselor could specialize in the development of community resources and in liason with community groups. A Multi-Media Coordinator could bring the power of educational technology to bear in group and individual guidance situations as well as the classroom. A Director of Career Guidance is necessary to coordinate the activities of these specialists. Other specialists, such as computer personnel, might be needed for special programs.

The New Jersey Division of Vocational Education has favored just this sort of functional organization, in the form of career resource centers, in the major career education programs operating in the state. Such arrangement had been established in Governor Cahill's Career Development Pilot Project sites even before Marland called for "career education now."

With the new federal initiative, however, New Jersey recognized a

need - and an opportunity - for change. This involved a considerable expansion in the number of career education and career guidance projects. It also involved an attempt to develop and refine models for career education and career guidance program development.

The first section of this volume contains two presentations made before the 1972 New Jersey Regional Career Guidance Conferences. The purpose of these conferences was to familiarize counselors with national and state developments, the important role of career guidance, and methods of implementation. The New Jersey guidance community was challenged to carry out its responsibility for service to all students, not just those bound for college. The general emphasis in 1972 was on mobilization for growth.

In 1973 the Division set out to develop goal and objective statement for career guidance, and to construct a framework for a comprehensive career guidance model. Within this general model, particular emphasis was placed upon the problem of student needs assessment. The design of a pre-counseling instrument was seen as essential.

The 1973 program, still in progress at this writing, involves the following activities:

1. MARCH, 1973
   Three-day Monmouth College Conference
   Outcome: Goal statements for career guidance

2. MAY 7-8, 1973
   Holiday Inn Conference
   Outcome: Objectives statements for career guidance

3. MAY 3[illegible], JUNE 6-13, 1973
RMC Conference
Outcome: Development of items for a pre-counseling survey instrument

4. Fifteen Camden counselors worked on June 25-29 with the materials developed at the previous workshop in order to:

   a. modify pre-counseling instrument appropriate for "Camden" students

   b. prepare pre-counseling instrument for administration to students

   c. participate in the development of the pre-counseling instrument as prescribed in step 7 below.

5. Proceedings to date (August) will be assembled for printing and state-wide distribution September 1973.

6. The materials developed during the conferences will be reviewed by four counselors who will work in the Curriculum Laboratory at Rutgers, under the direction of the Career Education staff and other consultants during the month of August. The efforts of these four counselors will be directed towards developing a "pre-counseling" instrument which will be helpful to teachers and counselors K-12 as follows:

   - assist students to judge functional level of career development 9-12

   - provide teachers with techniques for determining the effectiveness of the Careeer Education content of the curriculum and for using this information in program modification

   - provide counselors with a Career Education frame of reference to be used in group and individual sessions

   - provide counselors with a means for collecting data which would be significant for determining the effectiveness of the K-12 Career Education experiences.

7. School Year - 1973-74

The pre-counseling instrument will now be ready for field testing. Counselors employed in districts engaged in federal and Governor Cahill Career Education projects will be invited to participate as follows:

a. one counselor per district attend scheduled meetings (10 per year)

b. administer the pre-counseling instrument and report results to Career Counseling Committee. The Career Counseling Committee will be comprised of DVE staff, consultants, counselor educators and NJPGA representatives.

c. Disseminate findings:

- set up regional workshop
- prepare report of findings

d. work with consultants assigned to this phase of the project. Consultants will include the following:

- DVE staff
- Psychometrician
- Computer Program Designer

Clearly, the Guide is incomplete in the sense that developmental activity is continuing. Nevertheless, much of the material developed in the Career Education Workshops for Counselors is of immediate and practical value.

I

THE CHALLENGE

"Career Education, An Idea Whose Time Has Come"

Dr. Marton Margules
Associate State Director
of Vocational Education

In these times of educational doubt and citizen concern, it is rather interesting that men of great national decision-making power have turned to the vocational educator to develop an entirely new approach to education. We in the vocational-technical education fraternity are especially proud of this since in the past nine years more of the burden of educating more people of the U.S. has been placed on our shoulders.

We owe a great deal to those who realized that in order to provide the muscle for the newer thinking in vocational education it would be necessary to provide additional resources far in excess of those that had been made available through the Smith-Hughes legislation.

The Vocational Education Act of 1963 was a great step forward from the Smith-Hughes and George Barden Acts and laid a firm foundation for an act that will eventually go down in history as one of the most comprehensive pieces of legislation designed to meet the needs of our people.

One has but to look at P.L. 90-576, the Vocational Education Amendments of 1968, and the definition of Vocational Education stated in Section 108, to realize the true measure of this act.

The greatest challenge faced by educators in this decade is the

necessity to realize the goals of education and to place fresh emphasize on newer approaches to the education and training of our youth. The failure to recognize that this priority has immediate urgency disregards the awesome potential of our young people. This failure continues policies which we know have left a void in the preparation of young people toward meaningful and productive lives.

There is much evidence to support this need but one should not consider the situation impossible. The evidence also indicates that many high school graduates and most drop-outs begin their working lives without specific instruction or training in the skills necessary to meet the challenges of work in today's society. In addition, very few young people have had the opportunity, over the many years they have spent in schooling, to understand and to learn about the ways that jobs are sought. Nor do they have the information necessary to analyze their needs, abilities and talents.

To this end the Congress of the United States found it necessary to mandate that serious consideration be given to reducing the high level of youth unemployment by giving attention to all young people, so that they will be able to understand that in the wise choice of a vocation there are three broad factors: (1) a clear understanding of yourself, your aptitudes, abilities, interest, ambitions, resources, limitations, and their causes; (2) a knowledge of the requirements and conditions of success, advantages and disadvantages, compensation, opportunities, and prospects in different lines of work; (3) true reasoning on the relations of these two groups of facts.

Vocational development is thus seen as the summation of a complex series of decisions made by the individual over a considerable span of time with each previous decisions having an impact upon later choices. Not all decisions occur longitudinally or sequentially. Thus at any given moment the person may be at several different stages of choice on related aspects of his life. The crystallization and resulting action on one of these aspects has an impact upon subsequent decisions. In the samy way, the experiences the person encounters as a result of a decision will affect other decisions. The implied role of the counselor is to be a catalyst in freeing the person to make decisions and act upon them in relation to choices already made and those still possible.

Career education has responsibility for helping individuals develop:

* Favorable attitudes toward the personal, psychological, social, and economic significance of work.
* Appreciation for the worth of all types and levels of work.
* Skill in decision-making for choosing career options and changing career directions.
* Capability of making considered choices of career goals, based upon development of self in relation to the range of career options.
* Capability of charting a course for realization of self-established career goals in keeping with individual desires, needs, and opportunities.

* Knowledge, skill and attitudes necessary for entry and success in a career.

Further, career education should place all participants on the next education or occupational step and assure that all school-leavers are prepared for work.

There are several issues which must be considered.

I. The Leadership of Career Education -

There is no clear source of leadership.

I suggest that agencies and associations responsible for vocational education be assigned the leadership role.

II. Financing of Career Education -

There are only limited funds available through the Vocational Amendments.

I suggest that we promote legislation to authorize categorical funding for career education.

III. The Role of Vocational Education in Career Education -

Will the present and emerging vocational education programs be watered down? Will they lose identity?

I suggest vocational education be supported as significant to career education and as an identifiable component.

IV. The Role in Communications -

This new concept must have lines of communication.

I suggest the AVA assume this responsibility.

If one should analyze the many concepts and definitions that have been stated, it is apparent that four basic ideas emerge. These have been very succinctly stated by Dr. Marland as follows:

1. Career education will be a part of the curriculum of all students.
2. It will continue throughout a youngster's stay in school from the 1st grade through senior high and beyond.
3. Every student leaving school will possess the skills necessary to give him a start in making a livelihood even if he leaves before completing high school.
4. All students involved in career education will also have the skills and opportunity to seek further education whether this be immediately upon leaving school or during his later years.

Career Development is a series of education and skill development experiences which are designed to assist the individual in attaining self-fulfillment through (1) identifying and assessing attitudes, abilities, strengths, interests, and opportunities as they relate to meaningful career alternatives through self-evaluation, occupational information, occupational orientation, and counseling and (2) exploring and strengthening individual career problem solving, occupational potential and occupational activities through programs that assist in clarifying self-identity, in developing positive attitudes, in expanding career knowledge, and in increasing occupational skill

competencies which lead to satisfying and appropriate job entry and job enhancement and/or continuing education.

Career education, then, is a process or technique designed to enhance an individual's career development. Career development is the intrinsic skill, knowledge, attitude and self-image that is internalized as unique to that specific individual as he progresses through the sequence of career education. It is his own developmental process in terms of career outlook.

It would seem that there are needs and issues which should be the concern of any program of career education. These needs can be focused on the following areas:

Student and Parent Needs:

> Opportunities to communicate concerning school and the program of studies. They need understanding and awareness of the opportunities for exploration. They have a need for occupational information. The need for planning, preparation and placement is quite evident both on the part of the parent and on the part of the student.

The School Needs:

> are those which deal primarily with curriculum and special programs, trained staff, the needed facilities and the flexibility of these facilities in the shifting of programs and the development of new career curricula.

The Community Needs:

Tc know how the schools are doing. What is the account-ability? What is the working relationship of the school to community agencies? Is there a need for legislative and additional financial support?

Business and Industry:

have manpower needs. How are these programs related to these needs?

In other words we're talking about both the individual's needs and society's needs. How do these all fit into career education?

Here are some thoughts on how you can help:

AS A TEACHER

1. Recognize that you are a product, even prisoner, of the academic mold and personal projection tends to give value to those students most like yourself.

2. Provide students with more opportunities to appraise their own abilities, interests, needs and aspirations without placing complete, or even undue stress on the veral world of abstractions.

3. Renounce any preconceived idea or formula which provides an imposed curriculum on each student.

4. Assist students in finding own areas for making a successful contribution to self and society.

5. Practice specificity in developing objectives with students rather than using vagueness and abstractions.

AS A GUIDANCE COUNSELOR

1. Build up a knowledge about widest possible range of career lines.

2. Give vocational-technical (career) education equal rights with college preparatory and other alternatives.

3. Urge the development of new relevant curriculum as a means to providing students with the widest range of options.

4. Offer the widest range of resources for student's decision without prescription.

5. Admit the problem of accommodation between counselors and deprived students and seek to gain rapport without condemnation.

YOUR GUIDANCE PROGRAM

1. Should be truly comprehensive.

2. Should emphasize follow up of non-college bound students as feedback on adequacy of school programs.

AS AN ADMINISTRATOR

1. Educate the policy makers and public to the multi-purpose function of the school of which preparation for college is just a part.

2. Recognize that career education has a legitimate place in the educational mainstream required by our technological society.

3. Stress the necessity of hand-mind work in student development at the expense of total dependence on verbal symbols and the caste system based upon verbal competency alone.

4. Consider the yardstick of program adequacy not on college admissions data alone but on successful student job placement and student success on the job.

5. Foster, even urge, teacher experimentation in making education more meaningful without concern for "tradition."

I have endeavored to present to you the rationale for the ground swell behind career education. I have tried to provide you with a background for an understanding of where career education is at this point nationally.

I see it as a very important technique for merging the academic and the practical so that people can become productive, and yet continue their education.

All of the chief state school officers in the country have endorsed this career education project. It is necessary that co-operation be developed among all segments of society. This is a massive undertaking. Career education will only be successful with your help, with your consideration, and with your understanding. It is necessary that we, who have been given this program to carry, make every effort to see that it is successful and that it provides us with the opportunity to develop a better life style for all the citizens of this country.

In a very real sense, career education will be measured finally not in terms of its adaption by educators, but in terms of student attitude, job and higher education placement and the quality of individual and societal life it generates.

In summary career education is seen as a new approach to educational change. It is timely, relevant and humane in its potential to provide equal opportunity for all.

There is nothing more powerful than an idea whose time has come and I believe that career education is that idea!

"THE CHANGING ROLE OF THE SCHOOL COUNSELOR"

James W. Riley
Senior Economist
Merck & Co., Inc.

You may well question the rationale for having a businessman - especially an economist - kicking off this meeting. Put more bluntly, you might reasonably ask, "Why should the business community be interested in education in general, and the counseling effort in particular?" Let me cite a few statistics that you work with every day but that are of equal concern to businessmen:

- In the last two decades the U.S. education budget has grown by over 800%, from $8 billion in 1950 to nearly $71 billion in 1970. During the same period the U.S.' Gross National Product grew by 250%. Thus, education expenditures grew at a rate three times faster than the economy. On top of this, businesses spent another $15 billion for manpower training and reeducation programs last year.
- Some of the "negative" educational outputs are alarming:
  - one-third of all high school graduates taking the fifth-grade level Armed Forces Qualifying Exam failed;
  - schools in the urban ghettos have a dropout rate of about 40%;
  - it is estimated that 35 million adults are functionally illiterate; and
  - the unemployment rate of those freshly out of school is

three and four times the average for all workers.

Clearly, based on expenditures and short-fall in education and work-related efforts, the businessman as well as every citizen has -- or should have -- an interest in the educational system and what is is -- and is not -- accomplishing.

My task today is to provide the setting in which the rest of the day's discussion will take place. In doing so, I plan to cover briefly: models of the labor market; immobility of labor; more education for education's sake; and general data on the outlook for jobs.

Labor Market Models. In the decade of the fifties, the study of labor markets was looked at essentially as a supply problem and study was concerned with the impact on employment and wage rates of unions and concentrated industry. The structure of the various markets for labor was the main target. During the sixties, the effort switched to a consideration of demand characteristics and was essentially concerned with the abilities of the employee. The value of the education and the training of the employee -- or potential employee -- was the central area of concern in determining employment opportunities and wages.

Clearly, however, the demand for particular workers and the wage rates they'll receive are a function of both the structure of labor markets and the abilities of the workers themselves. This suggests, therefore that there isn't one demand schedule for, let's say, a painter, but a great number of demand schedules; and the ability to find rewarding employment will reflect both the

particular market he enters and the abilities he possesses. This, in turn, suggests that, in a particular area or industry, a highly skilled employee may find no employment or employment at relatively low wages while a similarly trained but less skilled worker in a different area or industry is in great demand and receives relatively high wages. These imperfections in the labor market are considerable. They demonstrate the reason for our lack of success in developing projections of future employment needs as well as our current inability to match potential employees with existing employment opportunities.

Mobility of Labor. One of the labor market imperfections is the immobility of labor both in terms of location of jobs and shifting between jobs. It is not unusual to find people refusing to move between contiguous areas, let alone between cities or states. Thus we find pockets of depressed employment -- especially for particular employment opportunities -- side by side with areas of great demand. Similarly, we find many jobs left unfilled in areas where unemployment is a serious problem.

Shifting physical location can be, of course, a great emotional as well as financial strain and is frequently compounded by belief or wishful thinking that things will improve locally. Shifting to a different kind of job often entails sacrifice of income, prestige; require additional training; or, at the very least, a belief that past training and education is being thrown away. Collectively these attitudes and costs - real and imaginary - compound the problems of achieving full employment.

Education for Education's Sake. A different kind of imperfection impact on employment in an overall sense is the questionable belief that more and more education leads to greater productivity and this, in turn, leads to higher levels of employment and wages. This is based on the generally accepted economic theory that the contribution of education is straight-forward: more educated workers are able to produce more than less educated workers. The "everyone ought to go to college" syndrome is at least partially justified on these grounds.

There is certainly considerable truth in this notion: better educated workers are both more productive and theoretically more adaptable to change. However, logic as well as recent experience suggests the issue is considerably more complex than this. The level of technology, the rate of technological change, changing industrial structures, and changing public demands are all factors that influence the need for a continuing rising level of educational input. Possibly more important, not every "piece" of education is of equal value - at any one time or over time - in terms of employment. Thus it is conceivable that we could have rising levels of education in an overall sense and yet a declining level of education in specific areas more germane to the employment question. As an aside, it should be recognized that education isn't and shouldn't be aimed at getting a job alone but it is surely important to prepare students for a productive and useful life including a rewarding job.

What we've attempted to demonstrate by the above is that forecasting employment outlook is a difficult task overall, extremely difficult for limited

areas and industries, and virtually impossible for specific job seekers. Similarly, we've tried to show that imperfections in the system can distort even good job forecasts in a particular area. Finally, we've suggested that, if eventual employment is a major goal of the educational system, a review of what is encompassed in education is necessary.

No one is really sure of why the phenomenon of unemployment and unfilled jobs exists. And reasons given for the situation vary from ignorance of job openings to too generous unemployment and welfare payments, and from jobs too menial to lack of ability to meet job-skill demands. Obviously, however, communicating the changing job outlook to those currently in the labor pool and especially those training for entrance into the labor market sometime in the future is critical to gaining full employment. Thus we must develop mechanisms for alerting potential employees to current job openings -- matching of jobs to employee -- and stimulating students to acquire the proper training and education for future employment.

Various efforts are being made: nationwide employment banks, stepped-up state and local employment services, moving grants, training grants, educational grants, and various coordinated government programs aimed at unemployment along with the host of other social ills. It is probably too early to judge these special efforts, but so far their success has been modest.

The problem of matching today's training and education with future employment opportunities is quite complex. But because we know that changes in technology will influence every area of employment, we can structure training

to reflect this. Thus, the goal of a machine tooling course would be similar to studying Hamlet. The study of Hamlet is not limited to making -- or even aimed at making -- a student an expert on either marriage counseling, or early Danish politics. It is intended to make him a more articulate, interesting, and interested person. Similarly, the study of machine-tooling should not be limited to making a student an expert on machine "A" but to add to his knowledge about the operation of machines in general, tooling machines in particular, and the relationship of the electrical and mechanical functions involved. In both cases the student is expected to be better able to master other material because of these particular experiences. This is simply a restatement of an old business truth: recognize you are in the transportation business -- and not a maker of buggies for horses -- or that you're in the health industry -- and not a maker of elixirs. The elixir and buggy manufacturers are out of business while the industries they were part of have continued to expand.

What can we say about the job outlook for the next decade? First off, it appears clear that there aren't any new industries on the horizon to burst forth with new job opportunities, such as happened in defense, education, and health during the 1960's. There will be, of course, increased government efforts in such areas as housing, pollution control, urban renewal, transportation, and health services. Further, the Administration has also suggested that it will provide aid for research and development in such areas as fire-fighting techniques, electronic mail systems, and transit systems, which could lead to rising employment shortly thereafter. But any significant push in

employment in these areas will require government funds which probably will not be available in large amounts from either local, state, or federal sources.

In the face of this average -- if lackluster -- outlook for the economy, we can forecast with considerable confidence the greatest increase in job hunters in our history during the next 10 years. Those looking for work will grow by an annual average of 1 1/2 million people or by 15 millions for the decade. Thus, finding jobs for the new entrants in the labor force is going to be difficult. And education and training will become even more important even though four out of every five jobs available in 1980 can be filled by those without a college education.

The growing employment -- in general terms -- will be the service area as the U.S. continues its move into a service economy. By 1980, seven out of every ten jobholders will be employed in services. This doesn't mean that there will not be an increase in the number of jobs for goods producing industries but that the growth of jobs in this latter area will be slower than that for services. In fact manufacturing will remain the largest single source of jobs in the economy. But only construction, among the goods producing industries, will have rapid expansion in jobs. Actual declines in number of jobs will be limited to such areas as agriculture, and mining.

Another aspect of increasing job opportunities besides the growth in overall demand is the age characteristics within a sector. An area made up predominantly of older workers will have a greater need for replacements than one made up of younger workers given the same rate of expansion. While data

is less available on this characteristic of labor markets than some others, the clerical service and semi-skilled areas will have by far the highest replacement needs based on the age of current workers.

One final characteristic of growing job areas that is important in forecasting actual number of jobs to be created is the current size of the employment base. An area with current employment of 500,000 will have an increase of only 50,000 jobs with a 10% growth, while another area with a base of 1,000,000 will create 50,000 additional jobs with 1/2 this rate of growth. In short, we can't just look at the rate of growth but must look at the actual number of jobs involved in forecasting employment opportunities.

The job market will expand fastest in such areas as: trade, transportation, communication, public utilities, real estate, finance, insurance, and government. Some of these jobs will be obviously for college graduates, such as professional and technical workers. But the great bulk of the openings will be for service workers where a college education isn't needed: police, firemen, household workers, cooks, building custodians, beauticians, practical nurses. secretaries, stenographers, business machine repairmen, plumbers, pipefitters, construction, machine operators, aircraft mechanics, bookkeepers, cashiers, office machine operators, sales personnel of all kinds and managers. A detailed analysis and projection of job opportunities is available from the U.S. Department of Labor for the asking.

Summary. We've suggested what the outlook is for jobs - where the greatest job opportunities will be, and where job opportunities will be slim.

And specifically noted that the greatest number of jobs - eight out of ten of them, in fact - will still be for those young people without a college education. But even with this ammunition available to you, the counselors' jobs will not be easy.

Counselors will have to overcome the current parent preoccupation with college education for their children. This preoccupation has been "abuilding" for over a generation and a change really requires a program to help society rethink its education priorities. It will be difficult, but it has to be done.

Added to the preoccupation with college education is the very clear fact that counselors are much more familiar with "schooling" than "work." After all, counselors have spent most of their lives in school either as students or teachers and relatively little in the business, industry, and general government areas that most of their students will participate in. In short, most counselors are more expert in education than work and it will require new efforts for them to become proficient or at least relearning the work area.

Moreover, the data on schooling is much more available and specialized than anything on work. Courses in colleges are numbers in the 10's or at the outside maybe a 100, while job opportunities number in the thousands. There is no chance, therefore, of becoming the same kind of expert in jobs that one was in education. But you may not have to, for this is an area where the local businessman, craftsman, union member, retailer, etc., can be your ally. In fact, maybe you ought to consider using retired workers from all these areas on

a one-to-one basis as career assistants to you and your students.

But no matter how difficult the task appears today, it isn't going to get easier in the future or disappear. We know what the problem is and its dimension. We also know that the center point for any effort for solving it is the counselor. It is the counselor who is the meeting place of student, parent, education, and work, and what he or she does will be all important in gaining a rewarding match of student and the World of Work.

II

THE CAREER EDUCATION WORKSHOPS FOR COUNSELORS

The Career Education Workshops for Counselors

Thomas W. Gambino, Director

Counselors generally have the expertise to carry out the responsibilities associated with their profession. However, in striving to provide for the student a climate of free and open communication, the interaction between student and counselor often lacks positive structure and content. As a result, the interaction in such a setting frequently does not contribute much to the ability of the student to cope with and develop all facets of his personality.

A series of conferences was planned by the Division of Vocational Education career development staff, which provided counselors the opportunity to develop an approach that would help keep the climate of free and open communication, but at the same time set the stage for aiding students in dealing with broad developmental needs. Certain key questions were identified:

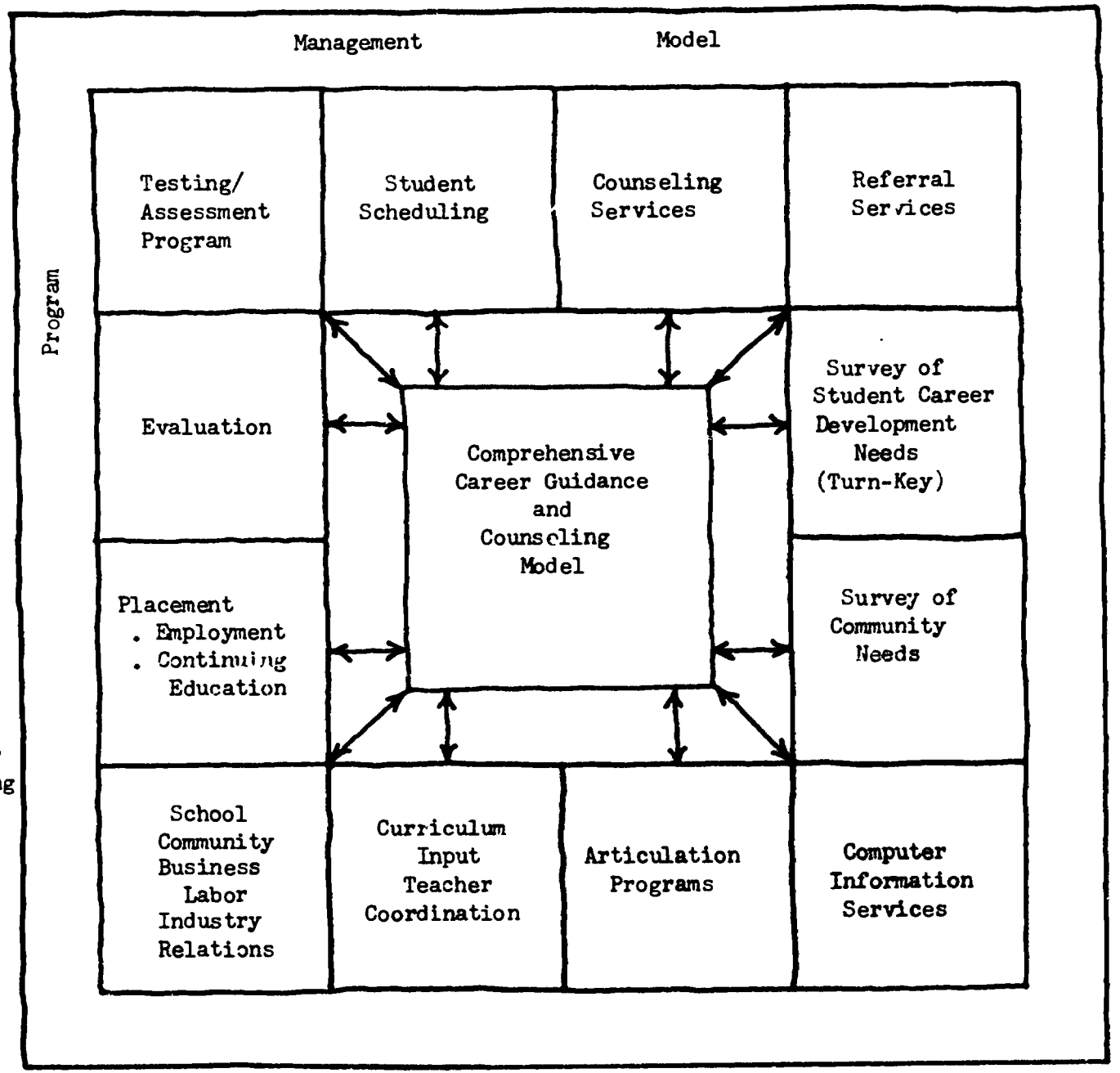
- What student developmental needs does the counselor deal with?
- What procedures should the counselor use to identify such needs quickly, accurately, and comprehensively?
- How can the counselor deal with such identified needs effectively?
- Can this be done at the beginning of the counselor/student interaction so as to set the tone, breadth and scope of the relationship?

Can such procedures also have input into the curriculum and serve as a base for counselor-teacher coordination of effort?

In the conference reaction to these questions, agreement arose that some "turn-key" was necessary to help open all pertinent areas of student behavior to the student-counselor relationship.

The figures which follow should aid the reader in placing this priority, "turn-key" area of student career development needs assessment in the larger context of a comprehensive career guidance model. The conference reports will illustrate the step-by-step progression toward attainment of the conference series goals.

COMPREHENSIVE CAREER DEVELOPMENT GUIDANCE AND COUNSELING CHART



A Comprehensive Career Guidance and Counseling Model is comprised of many sub-models.

Note: Not all sub-models are listed

Figure 1

PROGRAM MANAGEMENT MODEL

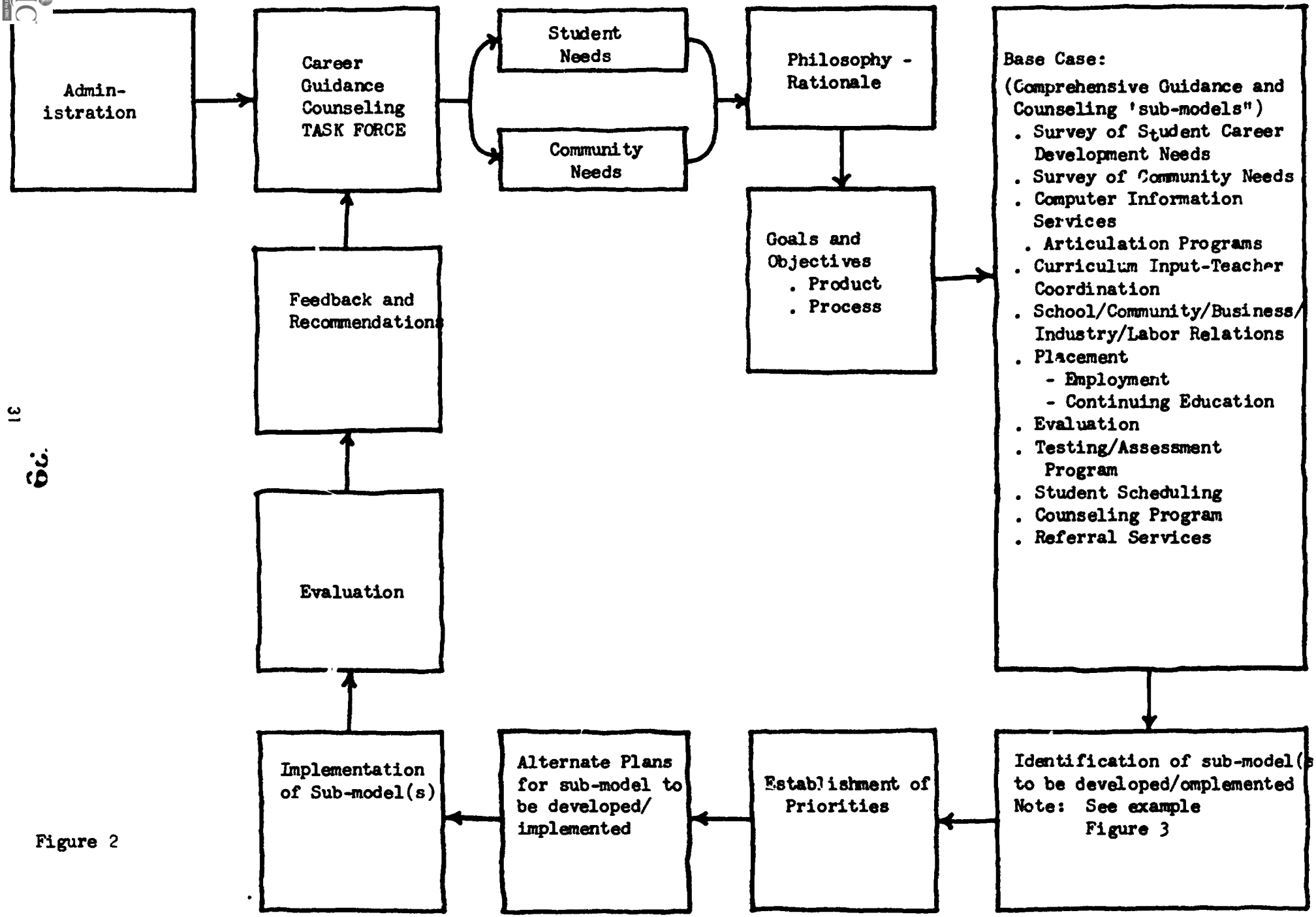


Figure 2

SURVEY OF STUDENT CAREER DEVELOPMENT NEEDS MODEL

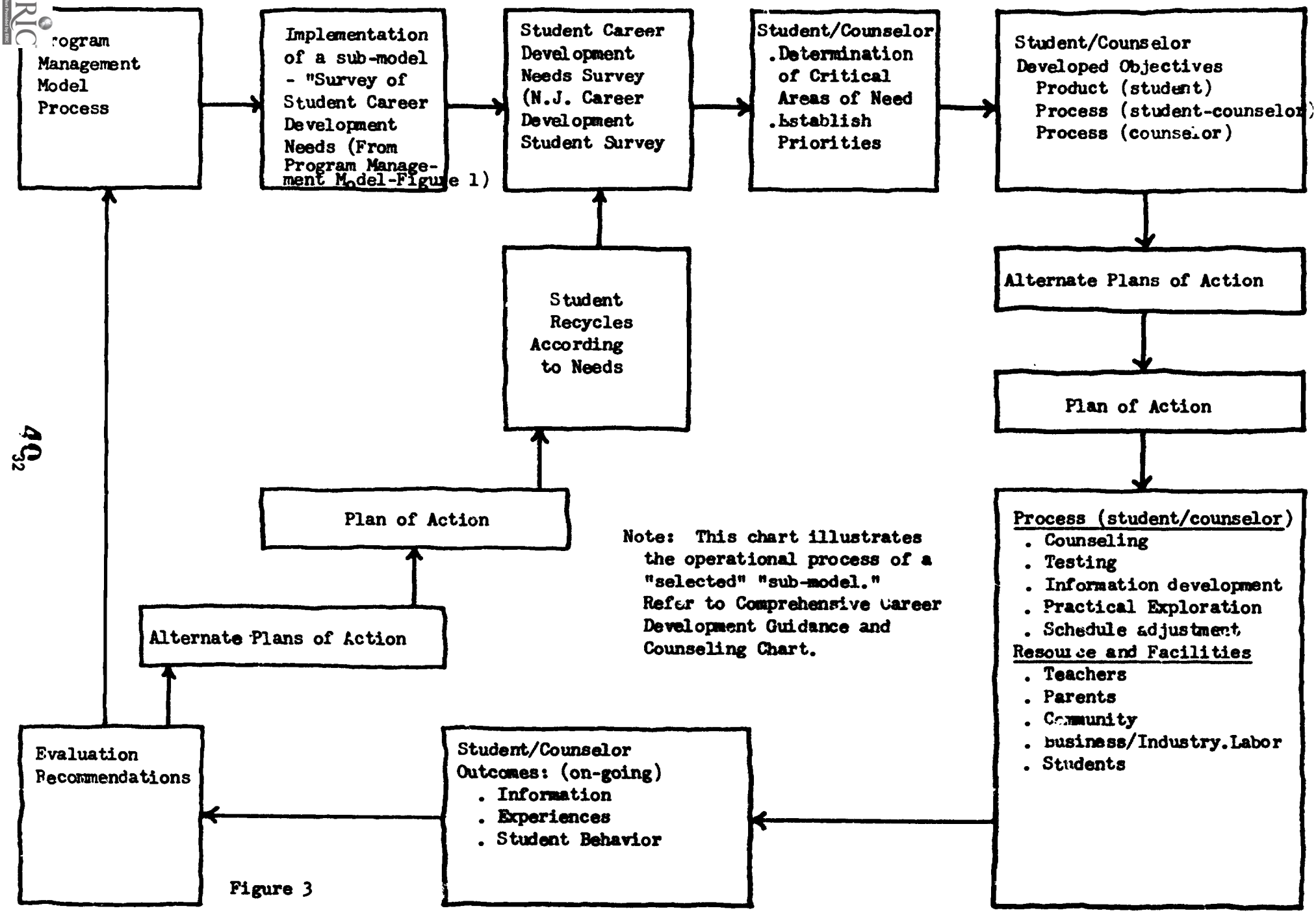


Figure 3

THE MONMOUTH COLLEGE CONFERENCE

January 25, February 22, and March 29, 1973

The first of the conference series 'Career Education Workshops for Counselors' was charged with the development of career education 'concept' statements. Included in this section of the Guide are conference coordinator Dr. Michael Kushinka's conference report, Mr. Thomas Gambino's special paper 'Grass-Roots Development of Curriculum for Career Education.' which served as a resource to the participants, and the concept statements developed by the conferees.

MONMOUTH COLLEGE CAREER LEADERSHIP CONFERENCE

Dr. Michael Kushinka
Monmouth College

PROBLEM

The decade of the 1960's was an era characterized by rapid social and technological change. It is already clear that the 1970's will require even greater effort to meet the demands that will be placed on youth and, indeed, the entire educational and career process.

While the thrust of career education appears to be moving at a rather restricted pace, the emerging evidence discloses an increasing awareness as to its place in our schools to help to effect a total experience. Theorists have made their impact in the area of vocational choice. This work cannot be ignored. On the contrary, it must be given greater emphasis as attempts are made to further the current concepts of career education. Most theories, however, are presented as distinct and separate entities more precisely applicable to the choice of vocations. The problem here is not to delimit but rather to vastly broaden the scope to include every aspect of a student's educational, social, and vocational experience.

Current efforts in career education emphasize the classroom teacher and the curriculum. The beginnings of counselor involvement with respect to role, which is distinctly related to the career education concept, are currently in evidence albeit on a limited or restricted basis.

It is with this as a focus that the Monmouth Conference as the first of a series of workshops was undertaken.

PURPOSE OF THE CONFERENCE

Workshops had been conducted prior to the conference proposed for Monmouth College. Previous sessions, however, were on an informal basis and of short duration with limited output. This program represents the first time a series of meetings would be held with field work interspersed between working sessions. The primary purpose was to generate activity that was exploratory in nature. All of this was with a view toward cooperative efforts among participants designed to contribute ideas, expertise, suggestions, reactions, and plans as input for developing a career guidance and counseling survey of career developmental needs.

The discussions and program plans centered on the formulation of a methodology for counseling based on the CCEM already in use by teachers involved in career education. The existing model was to be examined with a view toward adapting it for the counselor's use. However, it became clear early in the session that something more than a refined and/or substitute format would emerge. In reality, the conference at Monmouth College would serve as the base for subsequent activity which would focus on a pre-counseling tool for counselor use. No such conference or tool has yet been examined. In essence, this was to be a pilot project. The need for such an instrument is made eminently clear if the

6th Report of the National Advisory Council on Vocational Education is considered. This 1972 report admonishes that, "we have passed on to youth the false societal myth that a college degree is the best and surest route to occupational success - and then cautioned them that less than 20% of all occupations existing in this decade will require a college degree." (p. ?) Counselors are not unlike teachers in that they fear change and indeed, resist it. Given the findings of the Advisory Council's report, it should be evident to counselors that serious gaps exist and significant change must take place. It cannot be ignored that upwards of 750,000 youths drop out of high school each year. Even more alarming is the fact that over 850,000 drop out of college each year. The latter statistic does not bode well for the counselor and the role he plays in the placement process. Therefore, if the counselor is concerned with his accountability, it follows that he should be eager for significant change and not resist it. The counselor, however, is not alone in this indictment, but as the practitioner, he is held accountable for both success and failure in whatever he does.

Most counseling services appear to possess the necessary tools and methodology for providing career counseling. However, utilization, application, and proper interpretation of various tests, inventories and other instruments as common elements in the guidance process appear to fall short in providing the counselee with appropriate information and understanding that would produce a behavior that would help him in making

intelligent and worthwhile career decisions. It should be noted that, while the improper utilization and application of tools already available account for improper choice, a serious gap is present because of the lack of a system for determining a counselee's needs. The Monmouth Conference, among its multiple purposes, proposes and establishes the base from which a pre-counseling inventory to fill the latter gap above will emerge.

RATIONALE FOR THE CONFERENCE

It is not enough to graduate from high school from a program but rather to be prepared to take a meaningful and effective place in the world of work and to maintain flexibility for appropriate change. Much of what has been proposed to establish the purpose of the conference will of necessity fall within the realm of the rationale.

As already stated, the initial purpose for conducting the Monmouth Conference was to determine the feasibility of adpating Mr. Gambino's Grass-Roots Development of Curriculum for Career Education to the counselor's use by: 1) accepting the matrix, 2) modifying the matrix, 3) rejecting it and substituting if necessary. Since classroom teachers in career education centers currently operate within the elements set forth in the matrix, it was felt that these same elements should be extended to the counseling process in some form.

Current career education programs are the product of a combination of influences gleaned from the literature, experience and other sources. It

is also agreed that "career guidance" was incorporated, but a critical review of the programs in operation reveals that the career counseling dimension is missing. Present information does not stress the potential counselor inputs into the total career education concept. While it would be a simple task to establish the compatibility of the career matrix between instruction and counseling, it is apparent that larger and more pressing needs for the conference output are necessary.

To this end the formal and informal interaction focused on issues of far greater impact - the need to establish a pre-counseling inventory which would assist both counselor and counselee to fill significant gaps as identified. The pre-counseling inventory would furnish the added dimension of providing information relative to the effectiveness of the curriculum in contributing to the career development of the individual and to identify the gaps (curriculum) as they are discovered. However, as a first step in developing the instrument it was necessary that a set of concepts for each of the six elements in the matrix be determined. This relates to the initial purpose of the conference.

Specific justification for this project can be gleaned from a number of sources. The instrument as perceived here is all inclusive to the degree that it is concerned with the issues that fall within the scope of career education, however it is conceived or defined.

Career education has indeed produced a variety of definitions,

none of which can be construed to fully meet the test of what career education is generally conceived to be. Career counseling, as suggested in this report, must of necessity evolve from the career education frame and must stress the developmental nature of the process. Career counseling is synonymous with human development.

It takes into account the life-long sequences and patterns of an individual's work-related behavior, but, to borrow from Larry Bailey (ED [illegible] 198), it "is a continual process of working out a synthesis or compromise between the self and the reality opportunities and limitations" which one understands about himself and the world around him that will help him develop a life-style and self-concept that will make him a happy, contributing and successful citizen. To reiterate the above, it is essential that a pre-counseling instrument is vital to the counseling process if career counseling is to be an effective and viable adjunct to career education as it is currently unfolding.

GOALS AND OBJECTIVES OF THE MONMOUTH CONFERENCE

In order to provide the specifics, it is necessary to review the work session and the goals presented for each. Immediate goals are important to the individual work session because they serve to form the foundation for the long range plans. The basic objective of each of the three work sessions was the determination of the career development dimension for counseling and guidance. The goal for the first two sessions was set to be the development of a methodology for counseling on the basis

of the C.C.E.M. Session three was expanded to include in its objectives not only the development of the counseling dimension but also guidance and long range outcomes which are reported later. The goal to be met for the third working day was to develop precise descriptives (concepts) of each element which would lend themselves to specific objectives.

The above relates the immediate and working objectives and goals for the Monmouth Career Counseling Conference. However, undergirding this conference was the question - "What are the operational functions of counseling and guidance in Career Education?" The thrust of the conference was on the first of four long range goals which emphasized "counseling the individual for purposes of determing appropriateness of his present level of career development and assistance in staging next-step plans." The remaining three goals would be spin-offs and would be stressed in subsequent activity. They were:

1. Working with teachers/students/community in determining the effectiveness of the curriculum in contributing to the career development process of the individual.
2. Reporting curriculum needs to the administration.
3. Participating with staff in developing and implementing techniques, processes, programs, assessment and evaluation.

Activity generated during the Monmouth Conference produced positive and significant outcomes based on the tasks laid out for deliberations. Not only were the charges imposed on the participants for each session accomplished, but also the basis for subsequent conferences

was successfully formulated.

Dates for the conferences were set as January 25, 1973, February 22, 1973, and March 29, 1973. Invitations were sent to approximately sixty individuals of which number forty-two to forty-six attended each of the all day sessions. A composition of the participants was structured to include a diverse group. By design it was agreed by the conference leadership that the members should come from a variety of backgrounds in order to effect as wide a distribution of the conference activity as possible. Included among the participants were the writer, who served as chiarman and conference coordinator representing Monmouth College, three assistant coordinators representing the Monmouth faculty, three members of the Division of Vocational Education, the director of Region II, U.S.O.E., visiting observers from the Department of Education of New Jersey, counselor educators representing several of the colleges in New Jersey, counselors from career education centers around the state (Cahill Centers), members of the N.J.P.G.A. leadership, counselors from the various school districts within Monmouth County and the New Jersey Employment service.

WORKSHOP I - JANUARY 25, 1973

Following opening remarks and a welcome by the conference coordinator, Dr. Michael Kushinka, Dr. C. Norton Coe, Director of

Graduate Study at Monmouth officially welcomed the group to its deliberations on the Monmouth campus and offered a brief talk. Mr. Thomas Gambino, Director of Pilot, Demonstration, and Exemplary Programs for New Jersey was introduced and provided the participants with the basic purpose of the conference. He also provided information about the national thrust of career education.

The activity for the first of the three workshops was initiated by the showing of a career education film to the total group. A brief discussion and explanation followed. Subsequent presentations were made on a panel-type format.

Mr. William Kaskow, Supervisor of Vocational Guidance for the State Department of Education presented concepts of career education with the use of U.S.O.E. and other selected references. The basic thrust of this presentation was predicated upon the comprehensive human development base of career education and covered the following specific topics:

--Statement (Goals - Definition)

--Interdisciplinary

--Clusters (N - Adult - All students)

--Taxonomy

--Domains of Learning (Cognitive, Affective, Psycho-motor)

Mr. Patrick Doherty, Director of Career Development, State Department of Education, discussed the following with overhead projections:

--Theory of Instruction

--Theory of Learning

--Community/Business/Industry

A synthesis of the above was provided by Mr. Gambino who related that career education utilizes the best of educational know-how about how an individual learns in order to help him attain what he needs to develop his career potential. At this point he presented the basis for infusing the concept in an N-Adult curriculum (C.C.E.M.). The elements found in the C.C.E.M. were covered in detail with the view toward considering or developing a structure for incorporating the particular corcept/element into an effective operational form which is critical to the emerging career behavior of the individual and for evaluation.

Following this, Messrs. Gambino, Kaskow, and Doherty presented the group with information regarding career education in New Jersey. With the Pilot Project in Hackensack, the Cahill Centers and other projects. New Jersey can point with pride to positive steps and live experiences in career education. It appears that our neighboring states really do not measure up to this kind of effort.

At the conclusion of this part of the workshop the charge question and goal for Conference I were issued by Mr. Gambino. They were:

Question: How can counselors and teachers work from a common career education base to aid students in attaining career potential appropriate for age/ability/grade?

Goal: By the end of the day, we will have developed a methodology for counseling on the basis of the C.C.E.M.

The remainder of the Workshop session was devoted to individual seminar groups, each of which was assigned an element of the C.C.E.M. A group leader was responsible for recording and reporting the deliberations of each group.

The specific activities are listed as follows:

- Determine the appropriateness of the C.C.E.M. format for counseling - modify if necessary.
- Introduce "suggestions" for learner objectives, activities, resources, evaluation.
- Discuss possible ways for carrying out the "field testing" of the model.
- Explore techniques for providing students with opportunity for greater involvement and increased participation.

  questionnaire (based on C.C.E.M.)
  Pre/post survey (based on C.C.E.M.)
  Provide student with work copy of C.C.E.M. "suitable" for his own use

- Group leaders provide program coordinators with summary of day's work.

Prior to the termination of Workshop I the entire group reassembled for a brief wrap-up session and a further charge as a follow-up of the first conference. These included:

-- Monmouth College Program Coordinator prepare C.C.E.M. for participating counselors for purpose of "field testing" model.

-- Monmouth College Program Coordinators will make one visitation to each Monmouth County participant.

-- Counselors conduct "trail" conferences (at least 3 students) and report findings at next workshop (taping of sessions recommended).

-- Counselors conduct at least one group conference using C.C.E.M. at respective L.E.A.'s.

-- Counselor educators conduct discussions with counselor trainees relative to use of C.C.E.M. in counseling.

During the period between Workshop I and Workshop II the conference coordinators, through visitations to participant schools, were able to discern a good deal of confusion and misunderstanding. It appears that the counselors were concerned with the amount of material that was provided them through the first session. More time and clarification were required. It was then agreed by the conference leadership that part of Workshop II would be devoted to further discussion of the basic thrust of the activity. As a supplement and demonstration it was decided that a videotape presentation of the concepts be added to the format.

WORKSHOP CONFERENCE II

As February 22, 1973 the conference participants met in Pollack Auditorium of Wilson Hall, Monmouth College.

This conference got underway following opening comments by the conference coordinator and chairman. Messrs. Gambino, Doherty, and Kaskow reacted to the deliberations of Workshop I and the intervening operational

concerns. Further clarifications and information were provided as foundation for a videotape demonstration by Norman Brosniak of Asbury Park High School. This unedited demonstration provided the participants with an example of what the conference was attempting to accomplish. It was evident that the visual and audio aid did much to direct and clarify matters because it engendered a considerable amount of discussion.

Since this conference was to be a working session and the participants were infused with what appeared to be a great deal of enthusiasm as a result of the video demonstration, the charge question and goal were again provided. They were the same as applied to the first session with the same format to be followed. The groups as originally formed, were to pursue the same activities as assigned to them for Workshop I (listed earlier). Following the seminar group sessions the participants reassembled for the wrap-up comments, reports from group leaders, and to receive the charge for the follow-up of Conference II. This charge duplicated the one that was offered following Workshop I and is listed under the report of that workshop.

The period of time between Workshop II and Workshop III proved to be productive in terms of field testing of the model. As required, the conference coordinators, through the visitations on site, were able to ascertain a feeling of confidence and greater knowledge regarding the tasks put before them. Counselors generally felt that Workshop II provided more direction and a greater amount of time in individual group

session to make them more productive. This attitude and interest on the part of the participants was highly encouraging and pointed to an even more productive Workshop III.

WORKSHOP III

On March 29. 1973, Monmouth College again hosted the conference participants. This was to be the third and final formal session in this phase of the work charged to the conference.

Following opening comments and greetings by the conference coordinator the program was turned over the Messrs. Gambino, Kaskow, and Doherty for brief reactions to outcomes of Workshop II and to discuss a short career education slide film K-8. This demonstration was designed to show what is being done at that level in our educational structure and to emphasize the general lack of counselor input at the upper levels in our schools. In order to provide another possible dimension in the use of the C.C.E.M. concepts as applied to group work, a videotape demonstration of this approach was developed by Messrs. Brosniak of Asbury Park High School and Kaskow of the State Department. This demonstration evoked considerable discussion and a generally favorable response.

The participants were issued the charge question and goal for Workshop III. While the question was the same as for Workshops I and II the goal set for session III was revised as follows:

> By the end of the day we will have developed precise descriptions of each element which would lend themselves to specific objectives.

This goal was necessary because the output of this effort was to serve as the basis for the subsequent workshops scheduled to be held in May, 1973.

Specific group activities for this sessions are listed as follows:

> Each group participant should relate his experience with field testing the model as directed in previous workshops.
>
> Each group will have elements to discuss and develop.
>
> Group leaders will provide a brief summary of the day's activities.

The final follow-up charge is provided below:

> A request for reactions to the conference will be made of each participant.
>
> Coordinators will collect and develop workshop materials for the final report.

Group leaders were requested to submit to the conference coordinator a list of the precise descriptives pertaining to the element assigned. A follow-up letter and a complete set of descriptives was sent to each of the participants for the purpose of obtaining responses to the Workshops regarding content, value, need for more and other observations. They were also asked to react to the total list of descriptives. (Copy attached).

OUTCOMES OF THE MONMOUTH CONFERENCE

A review and analysis of the individual sessions activity as well as the total three day Monmouth Counselor Conference revealed significant general and specific outcomes. Although some confusion and

misunderstanding tended to prevail following Workshop I, subsequent clarification and explanation corrected these conditions. It can be stated with confidence that the cumulative output was highly productive and certainly worth the time, ideas, expertise, and attitudes provided by the participants in the pilot project concerned with the counselor and his role in the career education thrust.

Perhaps the major thought that did emerge was the fact that the Matrix was a progressive and cumulative instrument, an instrument which could profoundly effect the counselor's work by revealing and demonstrating to him (and others) his own accountability.

The following represent the production attributed to the collective efforts of the many participants:

1. The enthusiastic interest in the project - a fact attested to by the high number of participants in each of the sessions.

2. The eagerness of the group to learn the historical antecedents to career education and the current status of the movement in New Jersey.

3. The willingness of the members to "field test" material generated from each of the workshop sessions; this effort required on-going assistance between workshops.

4. The general acceptance of the element contained in the Matrix (C.C.E.M.) model as providing concepts which are adaptable to the counselor's use with some modifications.

5. The recognition that career education and, indeed, career counseling/guidance are viable educational constructs to help the counselor in meeting the

accountability test and to better define his role to students, school, home and community.

6. The felt need to expand the Monmouth activity and to continue the efforts by their willingness to participate in subsequent workshops.

Tangible outcomes were obtained through production of specific descriptives for each of the elements contained in the C.C.E.M. These descriptives and concepts were submitted for establishing the base upon which subsequent activity would generate to meet the long range objectives of developing a pre-counseling tool for universal utilization.

Further, it should be noted that the specific goals and outcomes for each working session were successfully accomplished.

In summary, the outcomes for the Monmouth Career Counseling Workshops emerged from the following:

1. To recognize that the N.J.C.D.M. is attuned to a total-human development-needs base.

2. To recognize the N.J.C.D.M. as an effective vehicle for implementing and coordinating classroom instruction and guidance/counseling.

3. To (sample) field-test the N.J.C.D.M. in one-to-one counseling.

4. To generate counseling and guidance, N.J.C.D.M. concept statements, N-Adult.

RECOMMENDATION FOR CONTINUATION OF THE WORK BEGUN AT THE MONMOUTH CONFERENCE

Because of the work accomplished and the significant output produced through the efforts of the participants, there is a strong need to pursue the long range view of the kinds of activity that could benefit the

counselor and his role in propagating career education in our schools. This need is imperative if New Jersey is to accomplish the task it has set in assisting the counselor meet and deal with the complexities surrounding his function in the career and educative process.

In order to meet these needs it is essential that the following list of long range outcomes be considered as they emerge from the pilot project undertaken at the Monmouth College conference that served as the base for subsequent deliberations:

1. Establish career development "bench marks" for ass ssing age/ability/grade attainment of individuals. These "bench marks" should be compatible with those of other educators N-Adult and reflect the philosophy of the school regarding career education.

2. Provide a means for collecting valid, comprehensive student data which portrays performance that will be significant for identifying curriculum gaps and weaknesses, thus making it possible to attune school goals to student goals.

3. Identify more clearly defined guidance/counseling responsibilities directly applicable to specific individual career development needs.

4. Assist the counselor in identifying responsibilities in the development of curriculum revisions and modifications which could facilitate meeting individual career development needs.

It is, therefore, recommended that the necessary manpower, facilities, and resources be provided so that the work so successfully begun may be carried to its logical conclusion.

"GRASS-ROOTS DEVELOPMENT OF CURRICULUM FOR CAREER EDUCATION"

Thomas W. Gambino
Director, Pilot Demonstration
and Exemplary Programs

1. CLEANING UP EDUCATIONAL POLLUTION

How would you describe a language school that failed to train a majority of its graduates so they could order a meal in a foreign country? Could you say it is an educational polluter?

How do you describe a system of education that fails to train a majority of its graduates to permit them to get a first job? An educational polluter? Or perhaps just a very ineffective educational system!

Take a close look at the current productivity and promise of American education, as revealed in the Sixth Report of the National Advisory Council on Vocational Education:

- Over 750,000 youths drop out of high school each year.
- Over 850,000 drop out of college each year.
- Fewer than 1 in every 4 high school students is enrolled in vocational education.
- Record numbers of high school graduates are enrolling in college during the very time when unemployment among college graduates is at a ten-year high.
- The ratio of youth to adult unemployment has risen each year since 1960.
- Student unrest is a strong and pervasive force among both high school and college students

- Over 7[illegible]% of all community college students are enrolled in the liberal arts transfer program while less than [illegible]% ever attain a baccalaureate degree.

- 3[illegible] of all Vietnam Veterans are enrolled in vocational programs, while 80% are enrolled in 4-year college programs, in spite of the limited prospect of jobs for college graduates.

Despair, a sense of failure, even rage - all of these feelings are quite appropriate reactions to a system of education that largely ignores the life needs of its students. Because of what is happening and what is not happening to students. America needs to remove its educational pollution. And Career Education provides a suitable reform.

2. BEYOND TOKENISM THERE IS CURRICULUM CHANGE

Teachers have frequently incorporated career insights into class instruction. In the early school years they have used study units dealing with "community helpers", "transportation", and "the family." In later grades, attempts have been made to incorporate role playing, observing and interviewing to achieve a career emphasis. In secondary schools, tours, special reports, and individual reading have provided a career dimension for many students not in vocational courses.

Yet despite these various efforts, the incorporation of career concerns has been token and by chance. Career orientation has not been a significant educational goal. The actual career needs of all students for broad orientation, decision making and practical experience have not been met or apparently not even been considered.

What is needed is an age/ability-graded career content built into the pre-K through adult curriculum. Only with an extensively altered curriculum can self-identity be clarified, good attitudes be developed, career knowledge expanded,,and skills be developed for both employment and continuing education.

It can not be overemphasized that such curriculum changes include all curriculum areas, and will affect all students.

3. A PROCEDURE FOR LOCAL CAREER EDUCATION CURRICULUM DEVELOPMENT

Teachers and counselors are the key persons responsible for creating a curriculum conducive to the establishment of broad career foundations. They have been trained to educate the student, evaluate his behavior and make judgments regarding his progress and his growth socially, intellectually, physically and emotionally.

The procedures identified in this paper are based on Career Education curriculum development techniques that have been going on in New Jersey since 1967. The first of these was conducted by a group of 25 teachers whose findings appear in a report entitled Vocational Awareness of Elementary Students, printed in 1969.

In order for teachers and counselors to begin to make significant judgments concerning a student's progress in Career Education, they would be wise to: (1) familiarize themselves with: Mager's Preparing Instructional Objectives (1962); A.S.C.D.'s Theories of Instruction (1968); Bloom's Taxonomy of Educational Objectives ... Cognative and Affective Domain;

New Jersey's own quarterly Career Education Progress; and the dozen or so special papers concerning Career Education now available from the New Jersey State Department of Education (phone 609-292-4451 or 201-985-7729); (2) visit the New Jersey Occupational Resource Center at Edison to get an idea of the Career Education information resources and services available there; and (3) as a group, wrestle with these absolutely essential issues for at least tentative answers:

- Whose responsibility is it to provide a curriculum that will help individuals attain worthwhile career goals?
- What are the development career needs of the individual, pre-school through adult?
- What are the existing age/ability - graded educational goals along the continuum from childhood through adult life?
- What learning environment might be appropriate to motivate each individual toward his or her emerging career style?
- In what ways might it be possible to determine the operational attainment level of a student's career development and its appropriateness for that individual?
- Will teachers & counselors as a team be held accountable for close communication, cooperation & coordination in offering an effective program for students? How will they be held accountable?

If there is a tentative but workable consensus about these basic issues, a local committee of counselors and teachers from all program areas at all grade levels can undertake the following recommended procedures; five steps must be undertaken:

Step 1: Gaining a basic understanding of what Career Education is.

Step 2: Dealing with Career Education in specific and operational terms.

Step 3: Using a simple model for Career Education goals.

Step 4: Using a special worksheet.

Step 5: Share and test your plan.

A few comments about each step should be helpful.

STEP ONE: GAINING A BASIC UNDERSTANDING OF WHAT CAREER EDUCATION IS

Although definitions of Career Education vary somewhat, the following definition has proven to be adequate with many New Jersey teachers in terms of key elements and emphasis:

Career Education is a process whereby instruction, methodology and community-home-school resources are coordinated to produce a programmatic base within which the individual is provided opportunities to explore, cope with, and develop his career potential. This is accomplished through planned sequential child through adult experiences. These Career Education "experiences" are provided through a thematic curriculum attuned to emerging individual, societal, technological and economic needs.

While Career Education is identified as the setting for explorational experiences, that which takes place relative to individual behavior and is occurring concurrently with Career Education is known as career development. Career development refers to that behavior which reflects the individual's perceptions of himself and his reactions to the

experiences along the Career Education continuum. An individual's career development "pattern of behavior" is the manifestation of the capacity, cumulative in nature, of the student to internalize his experiences and to generate decisions for the structuring of an individualized career style.

STEP TWO: DEALING WITH CAREER EDUCATION IN SPECIFIC AND OPERATIONAL TERMS

To deal with Career Education as a specific and operational concept means: that it is seen as more completely meeting the needs for total human development; that it takes place in and out of school throughout the entire life span of the individual; that it coordinates all the educational resources of the entire community; that it cuts across all educational and professional disciplines, and that it gives education a "now" dimension as well as preparing for the future.

STEP THREE: USING A SIMPLE MODEL FOR CAREER EDUCATION

Just as with the definition there are many operational Career Education models. The following four-stage model has proven useful:

Pre/School-Elementary Stage

Period of exploration and self discovery begins. Opportunities for self expression in coping with the environment produce individual behavior patterns in all areas of human development. Emphasis is on the reflections of our man-made environment, the impact of technology, understanding the world of work and the dignity of work.

Middle/Jr. High School Stage

Career exploration on a more sophisticated level leading to greater specificity based on expanded knowledge of skill potential and greater self awareness. Increased knowledge of the decision making process.

High School Stage

Study, evaluation, indepth testing of tentative choices and expanding development of specific employment skills and/or foundations for continuing education.

Adult Stage

Education and work blended as concomitant functions in a continuous process of attending to individual career development needs.

The outcome for the individual is cumulative at any one point. The total resources of student, school, home, and employers increasingly interact with expanding benefits for the student.

STEP FOUR: USING A SPECIAL WORKSHEET

Basic curriculum concerns such as learner objectives, learning activities, learning resources, and evaluation procedures are crosshatched with six basic goals of Career Education in the worksheet:

1. Basic Education Skills
2. Career Awareness
3. Self-Awareness
4. Appreciation, Work Attitudes, and Habits

- Decision-Making

- Socio-Technological, Economic Understandings

The choice of these six goals for Career Education deserves some explanation. Other configurations of goals have been identified by various agencies and persons; Ohio State's Center for Vocational and Technical Education, for example, uses eight. Another group listed as many as eighteen goals for Career Education. The number of goals is not as important as the complete list incorporating all significant dimensions of the concept.

Structuring different lists of goals for Career Education provokes necessary discussions from which a better Career Education might emerge. All of us should welcome and encourage such open debate.

This particular list of goals evolved out of this writer;s experience in meeting with teachers and counselors over a period of several years. It is quite open to reformulation. However, for the time being, it is an adequate and useful list of goals for Career Education.

STEP FIVE: SHARE AND TEST YOUR FINDINGS

Many other schools in this state and throughout the nation are already developing and testing career-oriented curricula, rethought and integrated by local educators. Your school would do well to develop teamwork with similar schools whether they are in New Jersey or elsewhere. You will be assisted by working with other interested educators.

The curriculum you propose as incorporating the six basic goals of Career Education will need field operation to move it from a promising

idea to a useful plan for learning experiences. The issue is not only whether your plan is good or bad, but whether the best alternatives have been combined for the goals set. A regular review or progress with the newly developed curriculum is necessary to adjust it to the actual emerging situation in your school; at first a weekly review would seem necessary, and later a monthly review when it seems more desirable.

USING A WORKSHEET TO DEVELOP "YOUR" CURRICULUM FOR CAREER EDUCATION

For over a year, New Jersey teachers and counselors have been helping to evolve a Career Education Curriculum Worksheet that would provide the opportunity for specific teachers and counselors to reorient their methodology to include the six basic goals essential for students to generate an individualized career style. Essentially the worksheet is a way of planning the use of appropriate objectives, activities, resources and evaluation procedures, with each of the six basic goals for Career Education.

Examine this worksheet, found on nearby pages. Subtract the handwritten sections and you have an unused worksheet. Note that the form can be used by a specific participant for any grade level, for any subject area, for any related service (guidance, remedial specialist, child study team, etc.) for any unit of instruction, and for any cooperating institution (industry, business, labor, home, government, social agency or service, etc.). The person developing an instructional plan by using the worksheet should carefully identify the specific grade level, specific

unit of instruction, etc., by marking the sheet or filling in appropriate blocks at the top of the form. Counselors should refer to the "sample" sheet specifically prepared for their type service.

The Basic Goals Column identifies broad needs which are the same for all students. They should be carefully studied and discussed. You will observe as you review these broad goals that they are attuned to the developmental needs of all students and thus provide a frame of reference that should ensure comprehensive educational experiences.

The Learner Objectives Column gives the teacher (or other person participating) an opportunity to express specific expectations for the grade and ability level of his or her students. Objectives for fifth, eighth, and twelth graders will necessarily be different. Also, objectives for advanced students in the fourth grade will necessary differ from objectives for a fourth grade class of retarded students.

The teacher begins by listing in the space next to Basic Educational Skills, those specific objectives pertinent to the stated goal. A series of objectives usually listed in course guides provided by the school should be entered here to the extent they are appropriate.

Do the same for Career Awareness and the other Basic Goals. The completed samples presented in this special paper should offer suggestions for the approach to be used. Counselors preparing worksheets for their students will note that the counselor sample sheet suggests "questions" which may be used in order to assist the student in his exploration of each area of his career development.

The Learning Activities Column provides a means for the teacher to carefully plan and introduce activities appropriate for the grade, ability and interests of the students in a particular class. Activities should be determined that will meet (1) the broad goals in column one, (2) the specific objectives in column two, (3) the total developmental needs of the individual on the basis of the affective, cognitive and psycho-motor domains of learning. This column should also include such teaching devices as: independent study; group planning; debates; games and simulations; role playing; team teaching; buddying-up with an older student; student-run activity; surveys; opinion polls; and carefully selected multi-media resources. Opportunities for greater student participation and responsibility, leadership development, team work, and recognition of the individual should be considered in this step of using the worksheet.

The Learning Resources Column is a way to capitalize on and coordinate business/labor/industry, school, home and government resources. This practice introduces into the unit of study greater understanding on the part of the student regarding how the school and these other segments of his environment can operate to broaden his education. Further, such comprehensive coordination makes education a "now" experience, not just an information storing process marked, "for future use only."

The Evaluation Procedures Column permits the instructional plan to include a concern for answering this question: "To what degree did the

students attain the stated objectives and what are the implications for the students' next step activities?" Include such techniques as survey. class discussion. standardized assessment instruments, and teacher-made tests. Evaluation may incorporate pre-post testing on a formal or informal basis. Student/teacher-made instruments should also be considered.

Getting started is always the most difficult step in undertaking anything new. Do some background reading. Be a good committee participant. And get a good start.

As you persevere on this project, it is hoped that you will use all the many personal and printed resources available to you. As you use this systematic approach to developing curriculum. be sure to discipline yourself to remain high committed to the needs of the individual student. His or her needs - as expressed in the six basic goals - are the most important consideration.

CAREER EDUCATION CURRICULUM WORKSHEET

. Grade Level = _____ . Subject Area = _____ Teacher's Name _____

. Related Services = _____ . Unit of Study = _____

. Resource = _____

SIX GOALS OF CAREER EDUCATION (Essential for generating an individualized career style)	LEARNER OBJECTIVES	LEARNING ACTIVITIES	LEARNING RESOURCES	EVALUATION PROCEDURES
1. BASIC EDUCATIONAL SKILLS: Students will develop and demonstrate comprehensive educational and employment skills on a pre-K-adult continuum leading to employment and/or continued education.				
2. CAREER-AWARENESS: Students will gain knowledge about the range and nature of various careers, including their educational and personal requirements.				
3. SELF-AWARENESS: Students will gain increased awareness of their value systems, their individual interests and abilities, and their interpersonal relationships, as emerging factors in improving their educational and employment potential.				
4. APPRECIATION, WORK ATTITUDES and HABITS: Students will recognize the contribution of work to our civilization and demonstrate initiative and responsibility for exploring and developing their individual potential				

SIX GOALS OF CAREER EDUCATION (Essential for generating an individualized career style)	LEARNER OBJECTIVES	LEARNING ACTIVITIES	LEARNING RESOURCES	EVALUATION PROCEDURES
5. DECISION-MAKING PROCESS: Students will develop career decision-making skills relative to "next-step" experiences in education and/or employment.				
6. SOCIO-TECHNOLOGICAL, ECONOMIC UNDERSTANDING: Students will gain knowledge of and relate to the economic, political, societal and technological aspects of careers in our contemporary civilization.				

EDUCATIONAL-AWARENESS

Students will develop and demonstrate comprehensive educational and employment skills on a pre-K-adult continuum leading to employment and/or continued education.

1. Skills:

   General Development

   Language

   Math

   Social Studies

   Physical

   Mechanical Reasoning

   Artistic

   Mechanical Ability

   Spatial

   Abstract Reasoning

2. Uses:

   Citizenship

   Family Relations

   Employment Preparation

   Self-Fulfillment and development

   . develop ability to explore

   . develop creative ability

   Social Acceptance

   Economic Security

   Cultural Enrichment

3. Ability to assess functional level of educational development
4. Knowledge of educational options and relations to uses
5. Ability to recognize and respon to strengths and weakness through curriculum option
6. Individual potential and prospective levels of attainment
7. Formal and informal education (school and non-school)
8. Recognition of need for practice in order to attain level of skill
9. Opportunity for skill development in school milieau
10. Recognition of the progressive, cumlative, planned and transferability aspects of education
11. Ability to learn (ease/difficulty)

    Vocational

    Specific preparation for specific employment

SELF-AWARENESS

Students will gain increased awareness of their value systems, their individual interests and abilities, and their inter-personal relationships, as emerging factors in improving their educational and employment potential.

1. Interacting patterns of behavior:
   - Physical
   - Intellectual
   - Emotional
   - Social
   - Personal
2. Value systems and standards
3. Individual interests
4. Individual potential
5. Self-image
6. Interpersonal relationships
7. Behavioral factors:
   - Adjustment to success and failure
   - Risk taking
   - Preserverance
   - Ability to develop skills (all) (proficency)
8. Individual sees himself as preferring
   - People
   - Data
   - Things

Students will develop career decision-making skills relative to "next-step" experiences in education and/or employment.

Steps in the process of decision-making:

STEP I

Awareness - how the student perceives the situation; identifies the problem to be solved in broad terms.

STEP II

The student gathers information and collects data. The other area of the matrix represent the source of this data.

STEP III

The student determines options from the information he has collected.

STEP IV

The student weighs alternatives in terms of all available data.

STEP V

The student chooses an alternative which represents the best option open.

STEP VI

The individual implements the choice.

STEP VII

The individual gathers feedback relative to the choice made.

STEP VIII

Evaluation (on-going - recycle)

CAREER AWARENESS

Students will gain knowledge about the range and nature of various careers, incuding their educational and personal requirements.

1. Titles of Occupations
2. Physical requirements
3. Responsibilities
4. Education
   - entry
   - advancement
5. Income
6. Employment outlook or possibilities
   - immediate
   - long-range
7. Working Conditions
   - hazards
   - in/out of doors
   - hours
   - vacations
   - interrelationships with others
8. Advancement
9. Mobility factors
10. Retirement application
11. Fringe and other benefits
12. Entry level or requirements/opportunity
13. Union/association membership
14. Social status of occupation
15. Working with:
    - data
    - people
    - things
16. Occupational Cluster
17. Employment process - How to get a job
    - newspapers
    - employment
    - radio-TV
18. Reportability
19. Leisure time

20. Retraining opportunities

21. Personality factors

22. Creativity factors

23. Values

    life style

    standards

24. Labor law regulations

25. Self-employment

    socio

    economics

26. Competition for work

27. Satisfaction elements pertinent to individual

    people

    data

    things

    creative

APPRECIATION, WORK ATTITUDES AND HABITS

Students will recognize the contribution of work to our civilization and demonstrate initiative and responsibility for exploring and developing their individual potential.

1. Recogni onsibility to self and others in completing tasks.
2. Recognize the broad range of differences in people.
3. Accept values, ideas, lifestyles, social, cultural, ethnic differences.
4. Responsibility for attending to and completing to the best of his ability his assigned work.
5. Understand and respond to psychological differences in people.
6. Realize that relationships between himself and others will result from performance and behavior in carrying out work.
7. Recognize that to become skillful requires persistant practice over a period of time and that success is not always guaranteed.
8. Respond favorably to instruction and criticism.
9. That to carry out a task effectively requires preparation, planning and the desire to succeed.
10. Realize that work can become routine and dull unless the individual is motivated to explore and to be creative.

SOCIO-TECHNOLOGICAL, ECONOMIC UNDERSTANDING

Students will gain knowledge of and relate to the economic, political, societal and technological aspects of careers in our contempory civilization.

1. SOCIETAL

Posture developed by individual in response to his society's position on:

status in society

women in jobs

modes and gaps (generation, hippie, homo, hair, clothes)

age

mobility (change of jobs and geographical areas)

values

dependency (welfare)

entry opportunity (relative to race, religion, etc.)

ex convicts

dropouts

work

blue collar - white collar

2. ECONOMIC

Students be made aware how the individual's economic future is dependent upon his understanding of the interdependence of outside economic forces.

economic factors affecting the freedom of career selection, time, money, level of skill, etc.

need for built-in flexibility and ability to adjust to change.

interdependence of decision-making such as employer, union, associations, economic factors, skills, motivation.

consideration along the horizontal continuum in contrast to the vertical scheme as heretofore considered.

clarification of economic supply and demand as it pertains to the individual.

understanding the career selection as it affects family standards and life style.

awareness of economic biases toward sex and minority groups.

appreciation of world economics on society and the individual.

impact of local, national and world politics on economic conditions.

3. TECHNOLOGICAL

training and retraining frequency for job changes and/or updating skills

political impact on technological change

impact on life style

impact on opportunities for employment

shortened work week

geographical employment impact

THE 'HOLIDAY INN' CONFERENCE

May 7-8, 1973

Having established career education 'concept' statements at the Monmouth College Conference, the Division of Vocational Education career development staff moved on to the level of objectives for career education. These were to be set by workshop groups at a conference established for this purpose and refined by two consultants: Dr. William Bingham of Rutgers University and Mr. Bernard Novick of the Central Jersey Industry-Education Council.

Included in this section of the Guide are Bingham and Novick's presentations before this conference and the 'raw' objectives constructed by the workshops groups, as refined by the consultants.

"IMPROVING CAREER GUIDANCE SERVICES"

William C. Bingham
Rutgers University

A variety of methods can be used to improve career guidance services. Two of them, research and evaluation, supplement each other in ways that make it advisable to consider them together, at least in passing. Research helps to refine and expand knowledge; evaluation helps to determine whether stated purposes have been achieved. Both need to be pursued vigorously if service to students is to be improved. The emphasis in the present context on evaluation reflects no intention to underrate the importance of research.

The planners of the conference you are about to attend have established two relatively long-range goals for themselves: (1) to help participants execute more effective evaluation than they presently conduct of the guidance programs they are associated with; and (2) to establish a bank of illustrative behavioral objectives for career guidance programs, including guidelines for writing them. For these purposes, career guidance is viewed as an essential functioning component of career education. Even in circumstances where guidance is viewed as separate from instruction, its impact is seriously diminished unless many of the basic objectives are pursued in the classroom as well as in the guidance office.

Career Guidance and Career Education

The relationship between career guidance and career education makes it necessary to examine education before proceeding to a discussion of evaluation.

It is particularly important to compare career education with more traditional occupational or vocational education. It is important to note that distinctions between career and occupational education are not nearly as discrete as a discussion of this kind may make them appear. Some elements of career education were incorporated in traditional programs long before the new term was invented, and some current programs which bear the new designation are no less traditional than they were a decade, or possibly even a generation ago. It should also be borne in mind that the description of the differences is the writer's own formulation.

Table I summarizes some important differences between career and occupational (or vocational) education. The list is not intended to be exhaustive, but it is long enough to indicate that there are fundamental differences. It is also clear that the terms career and occupation, as used here, are in no sense synonymous.

The basic orientation of occupational education is the labor force, with an important expected outcome the preparation of workers to fill existing needs. As a consequence, information about labor-market conditions is the beginning point from which attention is typically directed to specific occupations. Then selected individuals (they may be selected out of other opportunities rather than selected into this one) are offered instruction designed to develop job-related skills. Throughout, the relevance of instruction is some future event, often stated as "entering the world of work" or "preparation for life." Effectiveness is evaluated in terms of the acquisition of

Table 1

Differences between Traditional Occupational Education and Career Education

Source of Difference	Traditional Occupational Education	Career Education
1. Basic orientation	to meet manpower needs as identified by labor force shortages	to promote self-actualization in all individuals
2. Point of departure	information about labor-market conditions	self-awareness
3. Center of attention	specific occupations or cluster of related occupations	the career - defined as a purposeful life pattern
4. Scope	designed for selected individuals	designed for all people
5. Instructional strategies	aimed primarily at the acquisition of job-related skills	aimed specifically at the facilitation of developmental processes
6. Time focus	the future: education is viewed as getting ready to enter the world of work or preparation for life; relevance is based on anticipation of future events	the present: education is the work of the young, education is life; relevance is based on experiencing present events
7. Criteria of evaluation	job-based or job-related performance: job skills, work output, productivity, "success"	developmental progress: decision-making skills (not decisions), identification of alternatives (not choices); creative endeavor, etc.

Based on a presentation made for counselors and career educators in the Winston-Salem, N.C. schools 2/19/73.

job-related skills. Job performance, work output, productivity and the like often serve as criteria.

By comparison, career education is construed as beginning with the orientation that the fundamental concern is self-actualization. Thus, the beginning point is self-awareness and progress moves toward a purposeful pattern for the entire life span, i.e., the career rather than an occupation which at most is only part of a career. Career education is designed to serve all students, and it is implemented by addressing directly the facilitation of developmental processes. Relevance is defined in terms of the present; experiencing progress and immediate application of knowledge serve as motivants. Work viewed as something in the future serves as a deterant to many youngsters. In a very real sense, learning is the work of young people. Education is life; to call it preparation for life lends a quality of unreality that may very well help to justify the alienation that many young people feel. In the context suggested, then, criteria for evaluation focus on progress through processes rather than acquisitions: improvement in decision-making skills (not making a "good" decision), identifying alternatives (not making choices), creative endeavor (not the quality of what is created). Those actions in parentheses in the previous sentence are to be encouraged, of course; the difference is that they are not used as criteria.

Career guidance and vocational guidance differ in ways that parallel those described for career and occupational education. Just as the trait-factor approach to vocational guidance has given way to the developmental formulations

of career guidance, it is expected that occupational education will yield to career education for parallel reasons. Each of the narrower activities will retain a place of importance but within the scope of the broader one rather than in its own right.

Assessment of Outcomes

To bring about program improvement, it is necessary to assess performance. In assessing the performance in career guidance programs, the most important criterion is the outcome, i.e., what happens to students as a result of their participation.

The first step in looking at outcomes is to conceptualize a usable framework for evaluation. The writer has found it useful to regard "outcome" as a general class, and to conceptualize three more specific kinds of outcomes within that class. The specific outcomes are different, in part, because it takes differing lengths of time for the criteria by which they are measured to mature. In addition to the time difference, there is a more important one, scope, which has a direct effect on the way they can be measured. For purposes of discussion, the terms purpose, goal, and objective will be used to identify the three kinds of outcomes. Those terms are not entirely satisfactory, and the definitions differ from other uses, but they will serve well enough for present purposes.

All three kinds of outcomes can be expressed in behavioral terms, but they differ in how they are measured. Simply, an objective is measured by direct observation of the stated behavior, a goal through inferences from observed

behavior, a purpose can be measured only by analysis of the interactions among many behaviors. While these may seem similar to short-, intermediate-, and long-range goals, it should be remembered that the essential difference is criterion complexity not time.

Occupational information as an index of vocational maturity can serve as a concrete identification of the relationships among the three kinds of outcomes. A purpose would be that students use occupational information to demonstrate wisdom in their career behavior. A related goal may be the use of the information in some decision-making activity such as applying for a suitable job, dropping an inappropriate school subject, or changing an expressed occupational preference. The objective is information collection with such criterion behaviors as consulting a directory of trade schools, visiting a factory to inspect working conditions, reading classified advertisements, and the like.

Writing Outcome Statements

The foregoing discussion helps to lay the groundwork for one approach to writing outcome statements. Presumably there are many career guidance purposes for which common support can be obtained. That is an appropriate beginning point. Identification of goals which contribute to that purpose and objectives which contribute to the goals comes next. The relationships among the three kinds of outcomes need to be clear. If they are not, and the objectives prove to be unrelated to the purposes, then erroneous judgments may be made on the basis of the measurements.

Table 2

Illustrative Outcome Statements for Career Guidance

Outcome	Description
Purpose:	As a result of participating in the school guidance program, each student makes an effective career adjustment
Goal:	As a result of participating in the school guidance program, each student in the 10th grade begins to make deliberate choices about preferred and non-preferred career activities
Objectives:	As a result of participating in the school guidance program, each 10th grader manifests the following behaviors: 1. examines personal attributes and questions their relation to various occupational activities 2. uses school work to explore opportunities for implementing highly valued personal attributes 3. seeks information about measurable personal attributes such as interest and ability 4. expresses desire to know more about some occupations 5. identifies areas of high and limited competency 6. arranges in order of priority attributes regarded as important to implement 7. has identifiable preference for some occupational activities over others 8. eliminates from consideration occupations for which basic personal attributes are not present

"A MODEL FOR DEVELOPING CAREER GUIDANCE OBJECTIVES"

Bernard Novick
Central Jersey Industry-Education Council

The term "Career Education" is the subject of much discussion concerning its rationale, direction and purposes. This statement is an attempt to clarify some of the basic facts about this new field.

ASSUMPTIONS:

1. All individuals undergo a process of career development.
2. Most individuals have experienced haphazard and often negative career development.
3. The public school system was established for many reasons, not the least of which was to help an individual prepare for gainful employment.
4. Standard educational practice continually requires individuals to make decisions involving the future.
5. Most individuals would benefit from receiving systematic assistance as they undergo the career development process.

CONCLUSION:

Therefore, it is the responsibility of the public school system to provide an environment for learning that meets the expectations and goals of society including, and on occasion emphasizing, experiences that will assist individuals in enjoying an orderly and positive career development.

DEFINITIONS:

CAREER DEVELOPMENT - An individual's life-long experiences in coping with the world of work that begins with the first realization, conscious or unconscious, that the world of work offers opportunities for satisfying a person's needs and includes the process of understanding oneself, gathering data about options, establishing a value system, making choices, implementing decisions, and evaluating results.

CAREER EDUCATION - A series of educational experiences, under the sponsorship and control of the school system, consciously designed to positively enhance an individual's career development.

CAREER GUIDANCE - One of the many components of a career education program designed to individualize the process where necessary, and to provide consultant resources to the overall program.

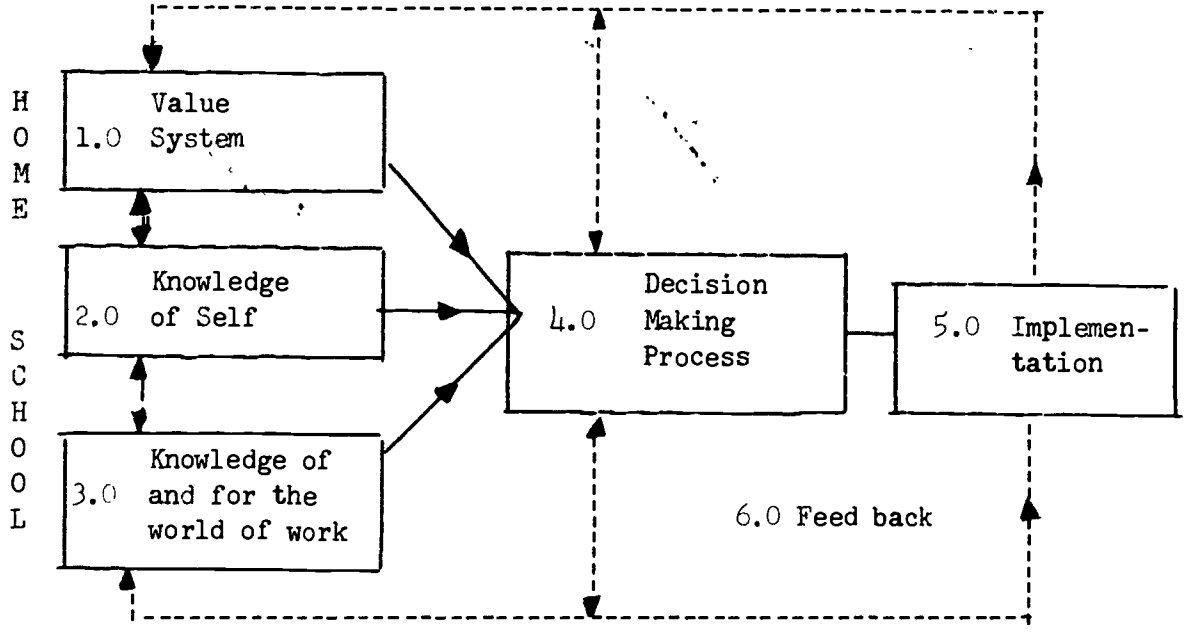
VOCATIONAL EDUCATION - Another of the many components of career education describing those experiences aimed at transmitting skills required for specific levels within a career cluster.

GOALS - Every individual, by the time he leaves public school, should be prepared:

1. To enter either gainful employment or the next higher level of education.

2. Be able to apply throughout life systematic procedures of career development by and for himself arriving at a level and position that satisfies his needs and is consistent with his talents.

In order to adequately plan a career education program that achieves its goals, it is helpful to identify its component elements as well as clarify their internal relationships. The following is an attempt, graphically and in narrative, to offer such an analysis:



1. VALUE SYSTEM - Each individual comes to the school with a value system generated primarily in the home and the environment outside of school. This value system must be recognized and incorporated in the career

2. KNOWLEDGE OF SELF - This encompasses those activities, conducted by the school system, designed primarily to assist individuals in understanding their abilities, interests, aptitudes, needs and values.

3. KNOWLEDGE OF AND FOR THE WORLD OF WORK - Each activity in the school must offer an extension of the individual's knowledge about the social, economic, physical, political world, as well as the facts and skills needed to effectively exist in such an environment.

4. DECISION MAKING PROCESS - The process of making rational career decisions is an independent, learnable skill which utilizes knowledge of self and knowledge of the world of work and must be congruent with one's value system.

5. IMPLEMENTATION - The choice resulting from the decision making process needs to be tested so that evaluation can take place.

6. FEED BACK - The results of implementation provides feed back to the inputs. If offers an opportunity for the individual to gain insight into knowledge of self and the world of work, to refine value systems, and improve skills in utilizing the decision making process.

Career educational program planning requires educators to insure the presence of goals, objectives, and activities dealing with Elements 2 through 6. If followed logically, Element 1, which will constantly be present, will be dealt with in proper perspective.

The counselor is the key professional in the career guidance program. It is the responsibility of the counselor to be effectively trained,

professionally current, and ethical in dealing with clients. Therefore, it is the counselor's responsiblity to determine professional practice which in turn determines potential client outcomes. Therefore, when a guidance program, particularly career guidance program, is put in the position of having to determine the outcomes for which it can be responsible, a logical beginning is an analysis of what the counselor does, can do, can be expected to do, or should do, and then move to the establishment of student outcomes.

The guidance counselor in a school setting is faced with the necessity of dealing with multiple populations, expectations, and superiors, and, therefore, multiple obligations. This combined with the counselor's professional self-perception constitutes the basis for the establishment of self and client expectations.

The counselor can examine the training that was experienced in graduate school as well as personal schools and performances and identify certain dimensions of student needs that are related. Some of these might be courses of education and occupation, course on counseling techniques, a desire to be of assistance, a knowledge of human growth and development, a knowledge of group tests and testing procedures, experimenting with a curriculum as a teacher.

Some of the goals that can be designated or identified as professional responsibilities based upon this procedure are as follows:

1. Be available as often as possible for student counseling.

2. Provide a warm empathetic, sympathetic adult for students to turn to when they feel the need.

3. Analyze the results of tests to students and teachers.

4. Assist parents in dealing with their children.

5. Assist teachers in coping with students with educational problems.

6. Assist students in dealing with educational problems resulting from interaction with the curriculum and/or with teachers.

7. Advise teachers and administrators on the results of student feeling, both those presently enrolled, graduates, and dropouts.

8. Assist students in making decisions about future careers.

9. Assist students in locating and entering further education or employment.

Having set up goals, like these, the counselor is in a position to select appropriate professional activities that are likely to result in the goals being achieved. After employing these procedures for a period of time, the counselor can review the impact they have had on students and other clients. Assessing this impact, or simply reviewing the procedures, will require the counselor to phrase in some measurable fashion statements or hypotheses that detail the expected impact. In some cases, the preparation of these statements or objectives can be accomplished immediately after clarifying the goals. The process then includes the following steps:

1. Analyzing one's professional training and competencies.

2. Establishing a set of professional goals.

3. Translating those goals into objectives for the target population.

4. Selecting activities.

5. Measuring the impact of such efforts.

6. Making any necessary changes.

EXAMPLE:

PROFESSIONAL TRAINING - Courses in vocational guidance.

GOAL - Assist students in making career decisions.

OBJECTIVES - Students should be able to list at least three career options based on success in at least two different curriculum areas; i.e. English, Math, etc.

ACTIVITIES - Group guidance classes; establish introduction to vocations classes; publish a career newsletter.

MEASUREMENT PROCEDURE - Annual survey of student interests and plans.

CAREER GUIDANCE OBJECTIVES

(Bingham and Novick)

Element Number	Desired Learner Outcomes	Planned Activities
2.0 KNOWLEDGE OF SELF Experiences designed to assist learners in understanding their abilities, interests, aptitudes needs and values	By grade 12, all students should be able to list at least three personal strengths and three weaknesses that would be significant in making career decisions By grade 12, all students should be able to list personal behavior characteristics essential for career success. By grade 12, all students should be able to identify at least one occupation of personal interest in each of 10 occupational clusters existing in the community. All students will be able to identify positive and negative factors that might affect the next step in career decision making. The student will be able to describe his/her view of the idea of work and its meaning to career development	1. Disseminate test and survey results 1.1 Give scores and results to the individuals directly. 1.2 Give updated transcripts along with scores so that the people can see their total record at one time. 1.3 Create mock situations where students must use this data in application situations: at the elementary schools to be class helpers, and the upper school for entrance into courses or programs. 1.4 Provide explanations for students, parents and teachers, but this must be preceded by a common understanding of the explanation by the guidance staff.

Note: No objectives relevant to the 'Value System' component of Novick's model are included.

Element Number	Desired Learner Outcomes	Planned Activities
	Students will be able to explain the relationship between personal satisfaction and fulfillment and occupational choice.	1.4.1 Use media for group discussions 1.4.2 Whenever material is distributed, it should contain a written explanation, that carries out the themes covered in the group media-based presentation 1.4.3 Have personal conferences available for those students who wish further information
	Each student will develop personal objectives.	2. Discuss personal evaluations made of students by teachers and counselors with the students so that they can perceive themselves as others see them.
	Students will be able to explain the impact of family values on career development.	3. Gather information from parents as you do from teachers as students go from one level to another. This information might also be discussed with the students so that they can perceive themselves in terms of their family context.
	Students will be able to describe the affect and influence of extra curricular activities on career choice and lifestyle.	4. Set up a system for helping teachers to gain skill in perceiving and analyzing students as people, as well as giving them help in developing skill in discussing their observations with students.
	The student should be able to describe the probable impacts of career choice on lifestyle.	
	Students shall be able to identify and assess their current value system and its implications for the future.	
	Students shall be aware of the need to continuously re-evaluate this system	

.ement Number	Desired Learner Outcomes	Planned Activities
		5. Introduce a course in "understanding oneself", available in grades 9, 10 and 11. 6. Provide group counseling. 7. Utilize simulation games throughout the curriculum and in group guidance settings. 8. Utilize video tape experiences by students of students.
3.1 INTERACTION SKILLS Experiences designed to help learners successfully relate to others on the job, in the family, and in society.	By grade 12, all students should be able to list personal behavior characteristics essential for career success. Students will be able to recognize resource people and use them appropriately. Faculty members will be able to recognize resource people and use them appropriately. The student should be knowledgeable concerning labor management functions and the relationship between them. Students must have social adaptability skills.	1. Set up series of teacher/student conferences so that they can work things out together in case of conflict. 2. Establish task oriented group counseling sessions. 3. Utilize extra curricula clubs to make participants aware that interaction skills are one of the benefits of participation and make teachers aware so that they emphasize this dimension of the program. 4. Utilize speakers from business and industry to emphasize this point. 5. Utilize some of the various media, film-strips and movies in group settings.

Element Number	Desired Learner Outcomes	Planned Activities
	Students will be able to demonstrate proficiency in job hunting skills. For example: job applications, interviews, selling of self, employer/employee relations, and laws and regulations governing employment. Students will be able to describe the processes of job changing and the behaviors that are likely to make such changes positive.	6. Encourage teachers who utilize group projects in their assignments, to work with the groups and make them realize that interaction skills are a dimension of benefit that can be derived from such experiences. 7. Repeat this process with coaches of athletic teams. 8. Make the upper secondary teachers recognize that this is one of the major functions of primary schools, yet they must build on it and strengthen it.
3.2 COGNITIVE KNOWLEDGES Experiences designed to develop competencies needed to succeed in and understand the world of work.	90% of the students should be able to list at least three places at which they may exercise the next step in their career options. By grade 12, all students should be able to identify at least one occupation of personal interest in each of 10 occupational clusters existing in the community. By grade 12, all students should be able to identify social, political factors that may have some impact on their educational and career development. By grade 12, all students should be able to identify economic and technological factors that may have some impact on their educational and career development.	1. A course in practical economics as opposed to classical economics should be made available. 2. Series of group guidance activities should be established. 2.1 Use media wherever appropriate. 2.2 Take advantage of home room opportunities where they exist, not on a regular basis, but occasionally. 2.3 Clubs specifically called "Exploring Careers" 2.4 The Explorer Scout club program.

Element Number	Desired Learner Outcomes	Planned Activities
	By grade 12, all students should be able to list personal behavior characteristics essential for career success.	2.5 The Career Film Festival 2.6 Career Days
	Before leaving secondary education, students will be aware of options for entry-re-entry system for both skill and knowledge development.	3. Include a unit on the career implications of each subject each year to be prepared by the Career Resource Center staff in cooperation with the teachers, and conducted by the teachers as part of their ongoing instruction.
	All students will be able to identify positive and negative factors that might affect the next step in career decision making.	4. Arrange for departmental visits to the Career Resources Center so faculty may determine what is available for their own department.
	Students will be able to describe entry level prerequisites, constraints, and employment potential within an occupation of interest.	5. Establish career libraries in various department offices.
	Students will be able to research entry level prerequisites, constraints and employment potential within occupations of interest.	6. Establish a program of in-service education for the teachers to help them relate their content area to the world of work.
	Students will be able to identify a training and/or education necessary for his or her career interests.	7. Prepare a teacher's manual for the effective utilization of the career resources center.
	Students will be able to explain the relationship between aspects of the curriculum and any future career choice.	8. Establish a newsletter for teachers.
	Teachers will be currently knowledgeable about the world of work and careers related to their respective subjects or areas.	9. Establish a newsletter for students.

Element Number	Desired Learner Outcomes	Planned Activities
	The student should be knowledgeable concerning labor-management functions and the relationship between them.	10. Assign counselors to serve as liaison with each of the content area departments. 11. Establish a program of guest speakers for teachers and students, recognizing that the teachers' speakers can be at either department or full faculty meetings. 12. Establish a program of in-house education between departments. 13. Establish a file for the utilization of parents and teachers as their speakers. 14. Field trips. 15. Introduction tc Vocations. 16. Technology for Children. 17. Establish a shadow program out in industry and in the community. 18. Establish junior achievement. 19. Utilize service clubs as a source of community speakers. 20. State Department of Education trailers.

ement nber	Desired Learner Outcomes	Planned Activities
		21. Units in English, social studies on the development and impact of work in society and on individuals. 22. Have a column in the school newspapers. 23. Utilize student produced media which is then kept in a central location and made available to other students. 24. Set up situations where teachers can take realistic jobs related to their career field for short periods of time. 25. Introduce some of this material in courses on civics.
3.3 VOCATIONAL SKILLS Experiences intended to help the learners acquire the skills needed to succeed in entry level positions and on which future training can be based.	Students will be able to explain the relationship between aspects of the curriculum and any future career choice. Student should be knowledgeable con-concerning labor management functions and the relationship between them. Students will be able to demonstrate proficiency in job hunting skills. For example: job applications, interviews, selling of self, employer/employee relations, and laws and regulations governing employment.	1. Administer the GATB. 2. Utilize work sampling. 3. Give students projects to do in and for the school. 4. Role playing. 5. Cooperative Work Experience 6. Shop courses 7. A.V., lab., secretarial, assistants. 8. Student government 9. Work study programs

	Desired Learner Outcomes	Planned Activities
		10. Establish programs in studying jobs. 11. Junior achievement 12. I.V. 13. T&C 14. Interest clubs 15. Community service volunteer programs 16. Part time jobs 17. Units in the English course on the job applications and interviews. 18. Have the students arrange much of these programs for the community by themselves.
4.0 DECISION MAKING SKILLS Experiences designed to make learners more expert in applying the process of decision making	By grade 12, all students should be able to identify basic steps in decision making. By grade 12, all students should be able to describe steps in executing a career plan. By the end of the 9th grade, all students will be able to select, from at least two job clusters, a minimum of four jobs in which they feel willing to explore further.	1. Teachers should cover this in social science and math and make students realize that the systems are compatible. 2. Transactional analysis 3. Create an opportunity for students to analyze past positions of themselves and others. 4. Ask community speakers to include the developmental stages of decision making they went through to get where they are today.

Desired Learner Outcomes	Planned Activities
Given the available student profile, by the end of the 9th grade students will be able to describe a rationale behind the selection of courses for the next school year.	5. Group counseling 6. Make sure that information about careers contains career ladders.
Student will demonstrate career decision making skills relative to a next step in the process.	7. Help students see that subject selection is one application of a lifelong decision making process.
Students will be able to explain the relationship between personal satisfaction and fulfillment and occupational choice.	8. Give students some opportunities to make some decisions about their own lives and face the consequences of their choice, either positvely or negatively.
Students will be able to explain the relationship between aspects of the curriculum and any future career choice.	9. Strengthen student government so that it is in fact a decision making body, and help them see they have a chance to live with the results of their decisions.
Students will be able to describe the affect and influence of extra curricular activities on career choice and life-style.	10. Utilize simulation games, such as Life Career Game, or Society.
Students should be able to describe the probable impacts of career choice on lifestyle.	
Students shall be able to identify and assess his current value system and its implications for the future.	
Student shall be aware of the need to continuously re-evaluate this system.	

Element Number	Desired Learner Outcomes	Planned Activities
5.0 IMPLEMENTATION Experiences designed to offer learners an opportunity to test decisions.	Students will be able to recognize resource people and use them appropriately. Faculty members will be able to recognize resource people and use them appropriately. Student should tryout exploratory experiences in a world of work.	
6.0 FEED BACK Opportunities provided learners to enable them to profit from experiences and re-examine their values.	Students will be able to recognize resource people and use them appropriately. Faculty members will be aboe to recognize resource people and use them appropriately.	

THE RMC CONFERENCE

May 30, June 6+13, 1973

On May 30, June 6, and June 13, a series of workshops was held at the New Jersey Residential Manpower Center in Edison. The purpose was to develop items for a pre-counseling survey instrument, which would be refined over the following months by project staff and consultants.

The participants were provided with over forty different specimen set of published instruments, bibliographics of ERIC documents on career education assessment, various works on educational testing and measurement, and a number of directories of available materials, including the Bingham and Haldeman papers which have been appended to this volume.

Included in this section of the Guide are Dr. Oxman's presentation before the conference and the draft instrument constructed by the summer curriculum project consultants from the workshop-developed items.

"CAREER ASSESSMENT"

Dr. Linda Oxman
Brookdale Community College

Historically, man has been interested in "smarts," brain power or knowledge. Over the years various men in various disciplines have pondered the intellectual sphere and have made significant contributions to the world of arts and letters. The early religious leaders believed that knowledge came from an omniscient supreme being. The philosophers of both ancient and modern times considered knowledge from every angle and classified what man can and does know, thus beginning the systems of logic that are studied today. More recently, psychologists have studied knowledge from the perception-learning point of view, from which emerged the concept of intelligence. The definition and measurement of intelligence has constituted the life work of many people. The methods, procedures, and problems of studying intelligence are relevant to many educational concerns - one of which is career education or career development. The more career development research one studies, the more one can see a parallel in the approach to career development assessment and intellectual assessment.

By the early 1900's psychologists and mathematicians had become sophisticated enough to begin to identify and measure intelligence. One of the many problems was knowing what they were measuring. Before one can assess Item X, one has to formulate an operational definition of what Item X is. The first step in any assessment project, then, is to formulate a theory, concept, assumption, hypothesis, construct, etc. Theory can develop out of personal

experience, readings, day-dreaming, or any number of activities. Many theories of the nature of intelligence have emerged, extensive research has been done, and psychometrists still debate the meaning and assessment of intelligence. However, during the twentieth century, the measurement of intelligence has become a very sophisticated scientific procedure with considerable agreement that the instruments used do measure the "whatever" that has been defined as intelligence. The author suggests that the assessment of career development is in a stage comparable to that of intellectual assessment in the early 1900's. Theories abound, data is piling up - but an efficient instrument that has been tested out remains to be developed. It may be worthwhile, then to continue to look at the development of an instrument designed to measure intelligence because of what it can teach us about the assessment of a developmental process in general.

The Stanford-Binet Intelligence Scale provides a good example of the history of test construction. Binet and his co-workers spent many years observing, theorizing and then trying to define and measure intelligence; their subjects were from age three to adult. A developmental progression of abilities began to emerge. There was variation at every age level, but, in general, different sets of abilities could be identified at specific age levels. Therefore, Binet decided that a test should be constructed with a difficulty differential that would discriminate levels of intelligence at specific intervals from age three to adult. The test was designed to compare an individual with his age mates. Binet arbitrarily defined normal as a state of performance for

an individual that is within the typical range for his/her age mates. Given these theories, definitions, and observations, Binet was ready to put together an instrument.

Does this have an implication for career assessment? It is generally accepted that career choice is a developmental process that continues throughout ones life and that certain behaviors can be recognized that indicate various stages within that process. Is it, then, possible to classify behaviors and attitudes and to measure ones progress in career choice or vocational maturity with the same precision that intelligence is now measured? Even more important, is it necessary or desirable to do so?

Those who were interested in the measurement of intelligence decided it was, indeed, necessary to continue to refine their instrument. Terman joined the effort and decided to develop norms that would enable him to compare mental age with chronological age. Continued research, it was hoped, would help to clear up the controversy over whether intelligence is a general ability (g) or a specific factor (s) or a combination of several factors. After some trial and error, it was decided to abandon the search for a single function, general intelligence, and to construct test items that were thought to measure an individual's capacity for direction, adaptation, and self-criticism. Binet designed items and tasks that he felt would discriminate or separate subjects at various age levels according to whether or not they could master the tasks. The items were put together as the 1916 Stanford-Binet.

The Stanford-Binet was standardized on 1000 children to 400 adults,

mostly white Americans. Each item was carefully scrutinized to insure that the test as a whole measured the variables that grew out of the theories and observations. Acceptable reliability and validity were established and the test was published and widely used.

This may sound like the end of the story, but the assessment of intelligence had just begun. In the 1930's, Terman and Merrill took ten years of research and began a new standardization project. By that time, there were generally accepted criteria for defining intelligence as well as for the way to measure it. Criteria for assessment can include behavior, knowledge, preference, awareness, perception, internalization, ability to decide, facility to manipulate, among many others. It should be noticed that these same criteria are the ones used in the existing career development instruments.

By 1937, a revision of the Stanford-Binet was published and it may be studied as an excellent example of test construction. The theories, assumptions and observations that went into the 1916 test, coupled with the data that had accumulated since that time gave Terman and Merrill what they needed to continue their work.

Standards of performance by age level had been identified and it definitely could be shown that intelligence, as measured by the Stanford-Binet, develops with age. Thus, age scales were developed. It was found that such scales could be easily used by professionals and laymen. One might ask, at this point, whether such standards of performance at age levels will emerge from career development research. The question is particularly appropriate in

terms of the statement, "What is needed is an age/ability-graded career content built into the pre-K through adult curriculum." (Thomas Gambino, 1972, Grass Roots Development of Curriculum for Career Education.) The statement implies that, like intellectual development, specific levels of career development exist at specific age levels. There is little definitive statistical research at this point to substantiate or identify the existence of successive career developmental stages.

Back to Test Construction!

For the 1937 revision, Terman began to utilize the more sophisticated statistical procedures available to him and to "clean-up" the structure and content of the test. Subtests were constructed and validated according to what they contributed to the test as a whole - not according to whether they were part of a logical theory. In developing a new instrument, it is normal to assume that if one measures the parts of a theory that logically fit together, then one can make inferences about the theory as a whole. However, psychometricians give caution about being more logical than objective.

After extensive analysis, Terman published the 1937 revision, and it included ten subtests: analogies, opposites, comprehension, absurdities, drawing designs, memory for meaningful digits, and for random digits, vocabulary, similarities and differences, and two verbal completions.

If one looks at the existing career development assessment instruments, many include subtests. It would be appropriate to ask what contribution each subtest makes to the test as a whole. In spite of ones conviction that values or decision-making are directly related to career development, one must ask if

these factors, as measured by the tests, make a substantial contribution to the test results as a whole. Even though factors such as economic awareness, values and personality fit together as a logical career development theory, it is necessary to ask what part these factors actually play in career choices. Much research is needed. When as much research is conducted on career development as has been conducted on intellectual development, perhaps these questions can be answered.

The intelligence testing story was not finished with the 1937 revision. By the 1950's it was decided that another revision of the Stanford-Binet was needed. Certain conditions provided the context for such a decision. A significant amount of the language and of the pictorial content of the test were out of date, and the norms were quite old. Also, there was considerable agreement as to which measures differentiated intelligence levels in accordance with independent criteria. Factor analysis and internal consistency studies showed that subtests such as abstract words, vocabulary, analogies, and verbal absurdities had higher efficiency in differentiating degrees of general intelligence than did the manipulative subtests. Finally, standards of relative intelligence levels have been developed.

Again, extensive research was done and the 1960 revision was standardized on 4498 subjects and is still used today. The technical aspects of the Stanford-Binet were strengthened with every revision. Two of the most significant technical aspects of standardization are reliability and validity.

When testing or measuring something, it is important to have that measure be as free from error as possible. When the butcher sells you a pound of

meat at $3.25 per pound, you certainly don't want the scales to be correct only 50% of the time! In testing and assessment, the same should apply. If a test gives virtually the same results when used a second time under the same condition, it is said to have a degree of reliability. Reliability is expressed numerically as a coefficient ranging from 0 to 1. It is left to the judgment of the investigator to decide what standard of reliability is acceptable for his own purposes.

There are four ways of determining reliability and the choice of methods is usually determined by the conditions under which one is working. The test - retest procedure for determing reliability involves testing a group of subjects at one time and then at a later time, under the same circumstances, using the same test. By processing the test scores through a formula, an r coefficient is obtained and one decides if the test has adequate r. Another method for determining r is similar to the first, only parallel or equivalent tests are used instead of using the same test. The subjects are tested twice, but the second time a parallel form is used instead of the original test.

A third means of determining r is the split-half method. When only one form of a test exists and it can be administered only one time, the r can be determined by artifically designating every other item as one set of questions, with the remainder of the items providing a second set of items. The same statistical procedures are followed and a split-half r is obtained.

Finally, an internal consistency test can be made. Mostly, it is a specialized design to use with tests whose items are of the pass-fail nature.

It was found that r on the Stanford-Binet was a function of age and magnitude of IQ. The older the subject and the lower the IQ, the more reliable were the scores. Because of these tendencies, r coefficiencies had to be established at all age levels. The r levels are quite good for the Stanford-Binet; many of the coefficients are in the .9's.

Age	Reliability (r) Range
2 1/2 - 5 1/2	.83 - .91
6 - 13	.91 - .97
14 - 18	.95 - .98

If you design a test or review a test, give thought to what r coefficient you would consider acceptable.

A second technical factor that must always be an assessment consideration is validity. The question of validity is essentially: Does the instrument measure what it is intended to measure? If a test is supposed to predict success, does it actually do that? There are four types of validity: content, construct, concurrent, and predictive. Content and construct validity are "measures" of the extent to which a test is actually measuring the theories or constructs on which it is based. If a definition of intelligence is established, a test would be said to have content validity if indeed it measured intelligence as defined. Coefficients or numbers are seldom used to indicate content or construct validity.

Concurrent validity is determined by comparing test results with other existing measures of the same construct. A validity coefficient similar

to the r coefficient may be determined. Again, the level of r that is acceptable is decided upon by the investigator.

Predictive validity is a consideration when a test purports to predict behavior. Predictive studies are made by testing subjects at one time and then following their history and after a certain time observing their behavior. A comparison of (1) the behavior or performance, and of the (2) prediction provides a coefficient that indicates to what extent a test has predictive validity.

Stanford-Binet validity was established for the 1960 revision by offering the following evidence: (1) items were based on items from the previous tests; (2) with each age level, the per cent passing specific items increased, thus verifying the criteria set by the investigators; and (3) each item had a high correlation (biserial) with the test as a whole.

What implications for career development can be extracted from our study of the Stanford-Binet? It was stated that there was wide agreement as to the measures that differentiate intelligence levels. The career education model advocates a "home, school, community" involvement in career development. Is there any agreement among parents, teachers, and civic leaders as to what constitutes career development, or which career choice is a valid one? It seems to this author that there must be a substantial effort to obtain input from sources outside the school if one is going to try to assess a process that requires considerable input from outside the educational system. It would be surprising, indeed, if there were even moderate agreement as to the specifics

of career development among parents, teachers, businessmen and community leaders.

Secondly, statistical studies of the subtests used by Terman for the 1960 revision showed that some were better indicators of general intelligence than others. If one looks at the goals of career education in New Jersey, one might ask whether some are not more significant than others. If a career assessment instrument is developed on the basis of the concepts and goals in the November 1972 Special Paper by Thomas Gambino, it should be subjected to stringent factor analysis and internal consistency studies to determine the contribution to career development made by each goal or subtest. It would be interesting to see what factors would emerge from factor analysis of an assessment instrument with six subtests, each based on one of the six goals of career education in New Jersey.

Finally, out of the research on intelligence testing, relative levels of intelligence were established. Out of the data, a pattern was constructed that grouped people from very superior to mentally defective. If an extensive career assessment project is done, should relative levels of career development be established. The question is most important. Where data exists, there is always one who will attempt to classify it and to make inferences from it. The question should be carefully considered. Is there a need to categorize superior to defective career development. If not, why develop an assessment instrument? If so, how will it help students?

If levels of development are important, perhaps energies would better

be spent looking for chronological performance standards, or involvement levels. Gambino (1972) describes a 4-stage model that includes Pre-School-Elementary-Middle-Jr. High, High School, and Adult stages. "Stage" standards couldbe established and instruments developed to compare people with the "stage-mates" as a beginning. Such measurement might be useful in deciding which students needed more help than others.

It is hoped that the comparisons and implications discussed above will stimulate thinking on the subject of career assessment and what direction it should take. Just two final comments seems appropriate: (1) In spite of the extensive research on intelligence testing, various psychologists still bicker over whether intelligence is a "g" factor or an "s" factor or a combination of both. Thus, it seems ridiculous to decide that career development is ....., and then to set out to prove it. And, (2) keep in mind that the measurement of any abstract process depends on three things - the theoretical framework of the investigator, the statistical methods used, and the nature of the subjects.

TEST CONSTRUCTION AS APPLIED TO CAREER ASSESSMENT

PROBLEM OR AREA OF CONCERN	CRITERIA	ITEMS	PRE-TESTING	RESEARCH
Basic Education Skills: comm, math, manipulation	Performance: simulated or real in home, school, community	From standardized test or teacher made tests	Item design Reliability & Validity	Collection of data in New Jersey P. S.
Career Awareness job titles, functions, operations	Life career game, analysis of tape from occupational area	What does game mean to you List 6 jobs		
Self-awareness as related to job skills	Meaningful discussion, scores on EPPI, Super, or CVIS	From Standardized Test		
Attitudes and appreciation responsibility efficiency teamwork	Analyze school behavior as if school were job	Written analysis		
Decision Making Information Experience	Origami SIGI	From Origami & SIGI		
Socio-Tech Economic				
Understanding marketing process labor relations legislation	Operation of business at school	Work sheets and business records		

STEPS IN TEST CONSTRUCTION

EMERGING FROM PROBLEMS OR AREAS OF INTEREST	CRITERIA	ITEMS/ CONSTRUCTION	PRETESTING	RESEARCH	REVISION
Concepts	Behavior	Logic	field-testing using appropriate sample populations	item analyses reliability validity factor analysis internal consistency inferences	repeat most of preceding steps
Assumptions	Knowledge	Beg, borrow, steal			
Goals	Preference				
	Awareness	Indirect measure			
Theories	Perceived need				
Postulates					
Observations	Internalization				
Constructs	Decision-making				

DRAFT INSTRUMENT

The following pre-counseling survey instrument was developed by four counselors during the summer of 1973 from the items created at the RMC Conference. After further revision and field testing, this instrument will be widely distrubted throughout the state and incorporated into the 'needs assessment' component of the New Jersey career guidance model.

EDUCATIONAL AWARENESS

Need more information (Please check)

1 2 3 4 5

1. It is important to me to earn good grades.
2. My grades are important to my parents.
3. My grades are important to my teachers.
4. My grades are important to my friends.
5. The following subjects are important to me. (Rate each subject)
    a. English
    b. Mathmatics
    c. Social Studies
    d. Physicial Education
    e. Business
    f. College Prep
    g. Home Economics
    h. Industrial Arts
    i. Foreign Language
    j. Music
    k. Art
6. What I learn in school will help me be a success.
7. I like to work with my hands.

1 2 3 4 5

8. The longer I stay in school, the more money I can earn.

9. Education is important.

10. Failure in school means failure in a job.

11. My father expects too much of me in school.

12. My mother expects too much of me in school.

13. My teachers expect too much of me.

14. My mood effect my day in school.

15. I work as hard as I can in school.

16. Being with members of the opposite sex interferes with my school work.

17. I should develop an educational plan for the future.

18. Cultural enrichment courses should be included in the school program.

    Examples: Afro-American History
    Film-making
    Photography
    English Literature
    etc.

19. It is important to me to finish high school.

20. I have a positive attitude toward learning.

21. Learning is easy for me.

22. I have good study habits.

1 2 3 4 5

23. After-school activities are learning experiences for me.

24. All learning does not take place in school.

25. Homework helps me understand my school work.

26. Learning is a continuing process.

27. My school provides information about job opportunities.

28. Different kinds of educational plans are needed for different jobs.

29. It is important for me to continue my education beyond high school.

30. The school program should include learning about jobs.

31. I should continually review my educational plan.

32. My educational progress effects my choice of jobs.

33. My grades reflect my ability.

CAREER AWARENESS

Need more information (Please check)

1 2 3 4 5

1. I want to know about jobs in my community.

2. I need assistance in finding jobs in the community.

3. I need to develop job skills.

4. I need information about different kinds of jobs.

5. I need to know how my skills will be helpful to me in job selection.

6. I need to get along with people I work with.

7. I am willing to travel in my work.

8. Once I select a job I cannot choose another job.

9. Understanding myself is important in my job selection.

10. My parents (or guardians) probably know better than anyone else which job I should choose.

11. Knowing what I do well is important to job selection.

12. Knowing what I like is important to job selection.

13. Salary is the most important item to me in choosing a job.

14. Promotions to a higher position are important to me.

15. Employment is a necessary part of life.

16. It is important to think about jobs while still in school.

17. A person is able to do any kind of work as long as he tried hard.

18. It is important that my career plans are acceptable to my friends.

19. It is important that my career plans are acceptable to my family.

1 2 3 4 5

20. I like to work with groups of people.

21. I like to work alone.

22. To be happy on a job, I need some freedom.

23. I perform best when competing with others.

24. I prefer to plan and organize the work of others.

25. My job must allow me to pursue my interest.

26. My physical make-up (size, strength, weight, etc.) will influence the kind of work I can do.

27. Knowledge of professional organizations and labor unions is important.

28. I would like my work to involve personal and social services. (Example: teacher, homemaker, deliveryman, beautician, doctor, etc.)

29. I would like my work to involve the natural environment. (Example: forestry, ecologist, geologist, etc.)

30. I would like my work to involve mechanical ability. (Example: repairing, designing, machine operating).

31. I would like my work to involve artistic ability. (Example: artists, landscaper, painter, etc.)

32. I would like my work to involve the area of business (Example: accountant, bookkeeper, banker, secretary, etc.)

33. I would like my work to involve scientific research. (Example: chemist, physicist, biologist, etc.)

1 2 3 4 5

34. Most people find a job:

a. Using the want ads in the newspaper.
b. Using an employment agency.
c. Through friends.
d. Through radio and television.

SELF-AWARENESS

Need more information (Please check)

1 2 3 4 5

1. My physicial makeup (size, strength, weight, etc.) affects me. ___

2. My appearance affects the way I act.

3. My physical makeup affects my job choice.

4. I am accepted by my classmates.

5. I get enough sleep.

6. I feel that I'm in good health.

7. I get upset over bad grades.

8. I worry about my grades.

9. I am afraid of tests.

10. I am a better student than most of my classmates.

11. I enjoy being with my mother or guardian.

12. I enjoy being with my father or guardian.

13. I enjoy being with my sister or sisters. (leave blank if you do not have a sister)

14. I enjoy being with my brother or brothers. (leave blank if you do not have a brother)

15. I enjoy being with my friends.

1 2 3 4 5

16. My family worries about money.

17. My parents choose my friends.

18. I work up to the best of my ability.

19. I know how to budget my time.

20. I have trouble making friends.

21. I feel I am left out of things with my friends.

22. I am afraid to make mistakes.

23. I succeed in most of the things I do.

24. The condition of my skin bothers me.

25. I like to earn my own money.

26. I get along well with the opposite sex.

27. I get along well with the same sex.

28. It would bother me if people talked about me behind my back.

29. It is important to be one of the gang.

30. I like having authority over others.

31. I like making my own decisions.

32. I like myself the way I am.

33. I can control my emotions.

34. I feel that people often take advantage of me.

35. I feel that my abilities are recognized by others.

36. I like participating in extra-curricular activities.

1 2 3 4 5

37. I like participating in activities outside of school.

38. I feel comfortable living in my community.

39. I feel good about myself.

40. I know how to look for a job.

41. I get bored easily.

42. Sitting still for long periods bothers me.

43. My father (or guardian) trusts me.

44. My mother (or guardian) trusts me.

45. I feel I can do anything I want.

46. My parents are too strict with me.

47. I like to finish everything I start.

48. I feel it is sometimes necessary to cheat.

49. I like doing things in a new way.

50. I like doing new things.

51. I have a good memory.

52. I am willing to get up in front of a group.

53. I look for the information that I need.

54. I accept criticism.

55. I prefer to work with people.

56. I prefer to work with things.

1 2 3 4 5

57. I would like to work with words.

58. I would like to work with numbers.

59. I accept responsibility.

60. I work better under pressure.

61. I need someone to tell my troubles to.

62. I like to do things in my own way.

63. Being popular is important to me.

APPRECIATION, WORK ATTITUDES and HABITS

Need more information (Please check)

1 2 3 4 5

1. Money is the most important factor in a job.

2. I complete work that I start.

3. I prefer to work with people of the same sex.

4. It would bother me if I cam to work late.

5. I do my best work with people of the same race.

6. I like to change from one job to another.

7. I do my best work when I compete with others.

8. Being employed with handicapped people would not bother me.

9. I would follow the dress code of my employer.

10. I do my best work when I can create something new.

1 2 3 4 5

11. I like to try out new ideas.

12. Rewards are not important for me to do my best work.

13. I want people to recognize me for my work.

14. It is important for me to know that I have done a good job.

15. It is important to me that people I work with do their fair share.

16. It is important to know that my job will last.

17. My mood should not affect the quality of my work.

18. Women should not work after marriage.

19. Women should have long-range career goals.

20. Men should have long-range career goals .

21. I work better when no special skill is required.

22. I work better when many skills are required.

23. I work better when the skills that are required are learned on the job.

24. I would be willing to fulfill the required time needed to master a skill.

SOCIO-TECHNOLOGICAL, ECONOMIC UNDERSTANDING

Need more information (please check)

1 2 3 4 5

1. Job choice determines my status in my community.

1 2 3 4 5

2. Women and men performing the same job should get equal pay.

3. Women should be given equal opportunities for jobs.

4. Women should be given equal opportunities for job advancement.

5. Race or national origin will effect your job opportunities.

6. Religion will effect your job opportunities.

7. A criminal record can effect your opportunity for employment.

8. A criminal record can effect your job choice.

9. High school dropouts do not have the same opportunities as high school graduates.

10. Everyone should work.

11. Changes in technology will require an individual to retrain and up-date his skills.

12. Opportunities for employment will depend on the state of the economy.

13. Politics effect the availability of jobs.

14. Change in technology can cause a shortened work week.

15. Job opportunities are available for me in my community.

16. A high school equivalency certificate is equal to a high school diploma.

17. All jobs should be open to men.

18. All jobs should be open to women.

19. Homosexuals should have equal opportunities for jobs.

1 2 3 4 5

20. Unwed mothers should have equal job opportunities.

21. Age will effect job opportunities.

22. Unions control entry into certain jobs.

23. Personal values will effect types of job choices.

24. Every American has the right to work.

25. Job opportunities depend on skills and training.

DECISION-MAKING

Directions: The statements below represent how some people make decisions. The choices are not all equally important. Some may be very important to some people, but not so important to others. Please rate the choices to the following statements in the order of importance to you.

5. Means the most important

4. Means the second in importance

3. Means the third in importance

2. Means the fourth in importance

1. Means the least important

Put each number next to the choices which indicates how you feel about that choice. There are no right or wrong answers.

1. In order to make a decision, you should know

a. How you feel about yourself

b. How your friends feel

c. How your parents or guardians feel

d. How your teachers feel

e. How your relatives feel

2. In order to be successful in selecting a job, you should know:

a. The right people

b. What abilities you have

c. Information about jobs

d. The educational requirements

e. Information gained from on-the-job experience

3. When you decide you need help in making a decision you should go to:

a. Your friends

b. Your parents or guardians

c. Your teachers

d. Your clergyman

e. Your counselor

4. In looking for information about jobs you would use:

a. Newspapers, books, etc.

b. Television, radio, film

c. Practical experiences

d. School trips

e. Guidance office

5. In developing your educational plans, you would consult:

a. Parents or guardians

b. No one

c. Friends

d. Teachers

e. Counselor

6. You expect to get training and education for your job through:

a. On-the-job training

b. High school education

c. Apprenticeship

d. Vocational school

e. College education

7. The decision to continue your education should be made by:

a. The student

b. Parents or guardians

c. The teachers

d. Counselors

e. Friends

8. Performance of a task is related to your:

a. Intelligence-how smart you are

b. Motivation-how much you want to perform

c. Attitude-how you feel about yourself

d. Physical ability

e. Aptitude-your ability to learn

9. In choosing a job you would consider:

a. How much fun the job provides.

b. Being able to work with your friends

c. How much money the job will pay

d. Your ability to do the job

e. How important you would feel

10. Do you think you would quit high school before graduating if you:

a. Got a full-time job

b. Started your own business

c. Failed too many subjects

d. Not graduating with my class

e. Definitely would not

11. If you were not successful in reaching a goal you would:

a. Try it again

b. Forget it

c. Seek additional help

d. Make alternate plans

e. Undecided

12. If you were not successful in reaching a goal you would blame:

a. Yourself

b. Other people

c. Luck

d. Lack of experience

e. Lack of information

13. You know you have made a "good" decision when:

a. You know you have done the right thing

b. Others tell you it is right

c. You see the result

d. You feel good about it

e. You know you have helped others

III

APPENDICES

A. "Career Education Assessment Instruments: Grades K-6"

Harvey Schmelter and Linda Oxman

B. "Career Education Assessment Instruments: Grades 7-9"

William C. Bingham and Ginger Mark

C. "Career Education Assessment Instruments: Grades 10-12"

Edward G. Haldeman

APPENDIX A

"CAREER EDUCATION ASSESSMENT INSTRUMENTS:

Grades K - 6"

Harvey Schmelter
Brookdale Community College

and

Linda Oxman
Brookdale Community College

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INTRODUCTION

An investigation of career assessment instruments at the elementary level presents several problems. Career development theory is relatively new for the majority of professionals involved in testing. Career programs in the schools are even newer, and research on which to base good test instruments at the elementary level is scarce. In most cases, career tests at the elementary level are either indirect measures of career development or are tools to lead into student-teacher or student-counselor interaction.

There are theories of occupational and vocational choice which provide the framework out of which career assessment instruments should be designed. Theories of occupational choice include the trait-factor theory, need drive theory, psychoanalytic theory and parent-child relationship theory. Vocational development theories include those by Ginzberg, Holland, Tiedeman, and Super.

Some theories include developmental processes or critical decision times at the elementary school level, but most do not. The trait-factor theory suggests that each person is keyed to a few specific occupations, and that the "key" should be learned during early adolescence. If this happens, then job-matching can occur during adulthood. Need theorists suggest that a person makes an occupational choice on the basis of a value or need system. Elementary level children make <u>other</u> choices -- whom to play with, what to eat, etc -- not occupational choices. Psychoanalytic

theory proposes that occupational choices satisfy impulses and drives by means of sublimation and identification while Roe suggests that personality types can be associated with field, level, and enterprise dimensions of occupations.

As yet, none of the theories has been tested or assessed at the elementary level. One would be hard-pressed to argue that any traits, drives, needs or personalities could be identified at the elementary level which would significantly relate to job choice as an adult.

While theories of occupational choice emphasize critical choice points when a "decision" is made to pursue a particular career, the vocational development strategists emphasize that occupational choice is a developmental process that takes place over an extended period of time and can have a number of successful outcomes. Buehler (1933), Hollingshead (1946) and Erickson (1950) suggested that growth is developmental and that life stages can be identified. There is more emphasis on processes taking place at the elementary level in the vocational development theories than in the occupational choice theories. Ginzberg (1951) stated that during childhood, vocational development is fantasy-oriented and completely unrelated to the realities of capabilities, time and economy. Holland proposed model personality classifications that are associated with general occupational classifications, but neglected to say how these model personalities are formed.

Erickson's psychosocial theory involves eight stages of the

development of man. Career development is an important aspect in these stages. During childhood, one goes through the crisis of gaining a sense of autonomy, iniative, and industry. All of these developments must reach a certain level before the adolescent or young adult can come to a personal or occupational identity. Super (1956) focuses on the self-concept theory which is tied to developmental stages of vocational maturity. Super's growth stage, including gantasy and interest substages, corresponds to the elementary school ages. During the ages 6 to 12, fantasy and the "likes and dislikes" provide the framework for all vocationalthought. Super emphasizes the fact that crystallization and specification of job choice only begin at adolescence. Thus, there is little for test-makers to identify as concrete measurable behavior at the elementary level that will predict occupational behavior in adulthood. Perhaps then the dearth of career assessments at the elementary level should not be surprising.[1]

This research is part of a comprehensive project of the New Jersey Department of Vocational Education to identify existing vocational assessment instruments that include affective scales which relate to career choices. The report will evaluate those career assessment materials available for students in grades K thru 6. Only tests which have been published for general use have been included in this report. No attempt was made to compile any in-house instruments which may have been utilized locally. Documentation relating to the assessment instruments in this paper was compiled from experts in the field and from the reporter's

own experience.

In keeping with similar projects for grades 7-12, a standard research format has been utilized for consistency and clarity. The format, which consists of three parts, includes descriptive data, technical data, and observations related to use of the materials. Descriptive data includes the publisher and date of publication, cost, age range, subscales and administrative time; technical data includes reliability, validity, norms and any subscale intercorrelations. Observations were made on the basis of usability for the age groups under consideration.

Intensive study showed that very little is available for use by educators in assessing career interests for students in grades K-6. While an attempt was made to exhaust all sources of information, this could not be fully accomplished. However, the reviews in this report will enable the reader to obtain a quick overview of what is generally available. This information can be the basis for further study of assessment instruments for any age group under study. Educators are presently developing and implementing transportable career education programs which may include construction of career assessment instruments for grades K-6. The Education Research Council of America in Cleveland, for example, is developing a career assessment instrument for grades 4 thru 6. This Occupational Development Inventory is being evaluated in the Muskegon, Michigan school system's Comprehensive Career Education Development Program and may be available for general use in the near future. A three-part test,

it includes an interview to assess the student's occupational knowledge and his ability to relate occupations to cluster; and a written test to ascertain the student's occupational vocabulary. The third part asks the student to identify and assess his values, self-concept, and attitudes regarding vocational choice.

Future reports such as this can be expected to cover many more assessment instruments as a result of the development now in progress by organizations such as the Education Research Council of America. Hopefully, this project will be the beginning of an on-going compilation of information related to career assessment instruments.

CALIFORNIA PRE-COUNSELING SELF-ANALYSIS PROTOCOL BOOKLET

Descriptive data:

Publisher: Western Psychological Services
12031 Wilshire Blvd.
Los Angeles, California 90025

Publication date: 1965

Cost: $5.50 per 25 booklets

Age range: Not restricted to age, recommended for all students.

Subscales: None

Administration time: 5-20 minutes

Technical data: There is no manual for this test.

Reliability: No data available.

Validity: No data available.

Norms: No data available.

Subscale intercorrelations: No data available.

Observations:

Administrative considerations: No formal procedures or conditions necessary. It is recommended for use as part of counselor intake system.

Usability: Very convenient; no formal scoring necessary.

Recommendations for use: This unscored survey information and interests is to be completed by students prior to a counseling interview.

KUDER GENERAL INTEREST SURVEY

Descriptive data:

Publisher: Science Research Associates, Inc.
259 East Erie St.
Chicago, Illinois 60611

Publication date: 1963

Cost: a) self-scoring consumable edition: Form E
Manual
Instructions
25 tests -- $8.45
b) machine scoring edition: Form E
25 tests--$16.30
Scoring--$ .75 per student
fee includes answer sheet, manual and profile
c) specimen set--$1.65
postage extra on all items

Age range: Grades 6-12

Subscales: 11 scores; outdoor, mechanical, computational, scientific, persuasive, artistic, literary, musical, social service, clerical, verification.

Administration time: 45-60 minutes

Technical data:

Reliability: Form E and C scales all correlated at or above .65 for a sample of tenth graders.

Validity: No predictive validity specific to this test is presented in the manual even though the test has been used for ten years. Reliance and reference is primarily based on job satisfaction studies based on the Kuder Preference Record-Vocational.

Norms: Coefficients of stability were obtained by retesting sixth through twelfth grade students after a six week period producing correlations in the .70's and .80's for most students. Results for sixth graders were significantly lower. Score stability was stated to be a function of intelligence with the group of sixth graders tested.

Observations:

Administrative considerations: The test has significant limitations if used with a sixth grade population. The test was originally construced for use from sixth to twelfth grades. However, a study by Kuder indicated 11 to 21 percent of sixth graders tested has questionable verification scores. This has led to recommend limiting the use of the test with sixth graders. Another limitation of the test is that the manual does not provide objective follow-up validity and interpretive materials to help the counselor in interpreting the test results for a sixth grade population.

Usability: The test is usable in relation to time, scoring and ease in administration. However, the test does have significant limitations for use with sixth graders as stated under administrative considerations.

Recommendations for use: The test should be used with care with sixth graders. More research and revisions of the test must be completed before it can be used at this level on an extensive basis.

ROTHWELL MILLER INTEREST BLANK (RMIB)

Descriptive data:

Publisher: NFER Publishing Co. LTD.
2 Jennings Bldg.
Thomas Ave.
Windsor, Berks
SL4 1QS England

Publication date: 1958, 1968 revision

Cost: .75p per 25 blanks
1.75£ per manual
2.05£ per specimen set
postage extra on all items

Age range: 11 and over

Subscales: Outdoor, mechanical, computational, scientific, persuasive, aesthetic, literary, musical, social services, clerical, practical and medical.

Administration time: 20-30 minutes

Technical data:

Reliability: Test-retest coefficients were obtained over periods ranging from three weeks to five months. Some coefficients are low--.37 (for persuasive) and .42 (for clerical) for a group of 179 engineering students. Corrected split-half coefficients range from .57 to .91.

Validity: Content validity was accessed by means of matrices of intercorrelations between the sales. Miller states that the low intercorrelation establishes the independences of the subscales. Several intercorrelations, however, are above .40.

Construct validity consists of comparisons between the relevant scales of the RMIB and those of other tests. The comparisons supported construct validity for the RMIB.

Criterion-related validty data were based on differences between academic faculties and yield reasonably satisfactory results.

Norms: Percentile norms are given for a wide variety of school populations, as well as some norms based on higher levels of education and on adult populations.

Subscale intercorrelations: Low intercorrelations are reported. However, some are over .40: outdoor with practical for boys (.45), mechanical with practical for both sexes (.61 and .58), computational with clerical for both sexes (.59 and .67); medical with scientific for both sexes (.50 and .42).

Observations:

Administrative considerations: The subject is given the RMIB which contains nine lists of twelve occupations in order of preference. No formal testing situation is required.

Usability: The blank is scored by adding the assigned rank for each stereotype across the nine blocks. Instructions and scoring procedures are clear and straight-forward.

Recommendations for use: The objective of the interest blank is to suggest inferences or hypotheses that counselors may use in the interview situation. It is more appropriate for use in the United Kingdom.

SPATIAL TESTS-- 1, 2 and 3

Descriptive data:

Publisher: Ginn and Co. Ltd., for the National Foundation for Educational Research in England and Wales.

Publication date: Test 1: 1950, 1959
Test 2: 1950, 1956
Test 3: 1958, 1963

Cost: Test 1: 12 p per test, 17 p per manual
Test 2: 10 p per test, 10 p per manual
Test 3: 12 p per test, 8 p per manual

Age range: Test 1: 11 to 13
Test 2: 10-7 to 13-11
Test 3: 10 to 11.11
15 to 18

Subscales: Test 1: Fitting shapes, form recognition, pattern recognition, shape recognition, and comparison form reflection.

Test 2: Match box corner, shapes and models, square completion, paper folding and block building.

Test 3:

Administration Time: Test 1: 60 minutes
Test 2: 45 minutes
Test 3: 60 minutes, ages 10.0-11.11,
40 minutes, ages 15-18

Technical data:

Reliability: Test 1: .96 Kuder-Richardson
.93 test-retest
Test 2: No data available
Test 3: No data available

There was no information on how the coefficients were derived. There is a "serious" lack of information in the manual about the reliability and validity of these tests.

Validity: Test 1: No data available
Test 2: No data available
Test 3: No data available

Norms: Test 1: Norms were calculated on the basis of scores standardized to 100 with a standard deviation of 15. The test discrimates with age of sutdent. Norms based on sample including both male and female subjects.

Test 2: Provisional norms (1956) for ages 10.7 to 12.11. Norms free on request from NFER.

Test 3:

Observations:

Administrative considerations: Instructions may be requested from NFER. The tests appear to be easy to administer. Instructions would have to be modified for American use.

Usability: Distribution is restricted to Directors of Education in the United Kingdom. Use in the United States seems to be unrealistic.

THE FACTORIAL INTEREST BLANK

Descriptive data:

Publisher: NFER Publishing Co. Ltd.
2 Jennings Bldg.
Thomas Ave.
Windsor, Berks
SL4 1QS England

Publication date: 1967

Costs: a) separate answer sheets--50 p per 25 answer sheets
b) tests--65 p per 25 tests
c) profiles--50 p per 25 profiles
d) scoring stencils--20 p per set
e) manual-- 1.1
f) specimen set-- 1.42 per specimen set
postage extra on all items

Age range: 11-16 years

Subscales: 8 scores; rural-practical, sociable, humanitarian, entertainment, physical, literate, aesthetic, scientific mechanical.

Administration time: 20-60 minutes

Technical data:

Reliability: Campbell states while the eight scales were built to be internally consistent, the Mean corrected split-half reliability coefficients were not high enough to give much. Confidence in the integrity of the factors--.78 for boys, .74 for girls. The Mean Test-retest reliability coefficients over a one month period to .90, which is adequate short term stability.

Validity: Two validity studies are reported--a) comparison of 81 secondary school students who were interests in science were compared with a chance distribution: "when the chi-square" came out significant, the author concluded that "category sci is highly significant as a predictor"; b) a follow-up study of 600 boys and girls.

Norms: Norms are given for each year for each sex in terms of five grades--very low, low, average, high, very high--formed by using percentile cutoff scores of 10, 30, 70 and 90.

Subscale intercorrelations: No data available.

Observations:

Administrative considerations: The test should be used with caution since research data necessary to provide meaningful analysis has not been completed.

Usability: Recommended primarily for classroom use to provide a stimulus to discussion of occupations. The administration time of the tests enables it to be administered in one classroom period for most students.

Recommendations for use: While the test might be conceivably used to generate classroom discussion about occupations, it should not be used for any individual counseling as a predictive instrument, or as one to advise students in career decisions. Not enough developmental research has been done to provide for adequate use of the test. Error in using ipsative data measures have produced meaningless correlations. In summary, this attempt to measure interests has been built on a foundation of methological error.

WHAT I LIKE TO DO

Descriptive data:

Publisher: Science Research Associates, Inc.
259 East Erie St.
Chicago, Illinois 60611

Publication date:

Costs:		
	Inventory Booklets (25)	$9.35
	Answer Sheets (50 packs or more)	7.65
	Profile Folders (100)	7.50
	Stencils for IBM 805 (set of 3)	2.15
	Teachers Handbook	.59
	Manual	.59
	Specimen Set	2.15

Technical data: No data available

Observations:

Recommendations for use: The inventory "What I Like to Do", is not standardized, thus it cannot be used to make predictions or inferences concerning students' career patterns or plans. For children in grades 4-7, it is doubtful that such predictions would be meaningful or appropriate, anyway.

However, the use of "What I Like to Do" as suggested in the Teachers Handbook seems advisable: The Teachers Handbook describes ways in which the inventory results can provide the basis for daily lessons and activities. Such plans would obviously provide more meaningful and more personalized educational experiences.

Since the above suggestions seem to be the only valid use of the inventory, it should not be construed as a career assessment instrument even though this mught be construed from the S.R.A. Catalog.

FOOTNOTE

All dated references come from:

1. Zaccario, Joseph. Theories of Occupational Choice and Vocational Development. (New York: Houghton Mifflin Company, 1970).

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APPENDIX B

"CAREER EDUCATION ASSESSMENT INSTRUMENTS:

Grades 7 - 9"

Dr. William C. Bingham
Rutgers University

and

Ginger Mark
South Brunswick High School

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INTRODUCTORY STATEMENT

Recent increases in attention to career education considerations (conceptualizing, program development, funding) have underscored the need for people in or related to career education operations to assess various aspects of what they are doing. This report represents one effort to meet that need.

The need, of course, is considerably greater than a single report can address. The data and observations presented here are addressed only to assessment instruments which appear to be usable to appraise effective behavior at the hunior high school level. Companion reports are in process for elementary and senior high school grades. Assessment instruments which have no relevance to grades 7, 8 or 9 and those tapping cognitive or psycho-motor behavior were not examined. Only a few interest inventories have been included and those because of some quality of atypicality.

In the analysis of the instruments examined for this report, an effort was made to bring together in one place a range of data and opinion that would make a satisfactory quick reference for prospective test users. The intention has, by no means, been to supplant the test manuals and other supporting technical reports. This report can serve as a convenient screening device to determine whether further investigation is warranted before deciding that a particular instrument is or is

not appropriate to serve a desired purpose. If further investigation does seem warranted, the test manuals, test materials, technical reports, appropriate journals, and pertinent reviews in Buros' Mental Measurements Yearbooks (MMYs) should be consulted. The Sixth (1965) and Seventh (1972) MMYs are particularly recommended.

Reports on individual instruments are presented so that information is arranged in three categories: descriptive data, technical data, and observations. The descriptive data category includes information about publication (publisher, date, and costs) intended population (usually age or school-grade range) and time required for administration. The technical data section includes information about reliability, validity, norms, and other technical matters as available. No effort was made to be exhaustive in reporting technical data. Reported reliability and validity coefficients are representative rather than complete; they are often reported as ranges and/or medians. Test users are reminded that sometimes validity and reliability studies appear in the professional literature but do not find their way into authors' and publishers' reports. Only a superficial description of norm groups is included; details can be found in the test manuals, in most cases.

Users of the report are cautioned that it should not be regarded as representing all tests available in the designated area. Although an effort was made to locate all relevant materials, a number of factors make it impossible to be assured of exhaustiveness or to keep up to date for

very long: proliferation of assessment materials, delays in publication, and inconsistent and unconventional practices in the generation of materials.

It is recommended that this effort be repeated periodically in order to keep the quick reference reasonably up to date. It is also recommended that similar quick-reference summaries be undertaken for cognitive and psycho-motor assessment instruments and that similar guides be prepared for all behavior realms on instruments intended for use with adults.

A. P. U. OCCUPATIONAL INTERESTS GUIDE: INTERMEDIATE VERSION (OIG)

Descriptive data:

Publisher: University of London Press Ltd.
St. Paul's House
Warwick Lane
London EC4

Publication date: 1966

Cost: a) separate forms for males, females - £ 1 per 20 tests
b) separate answer sheets (IBM, 1230) for males, females - 50 p per 20 answer sheets
c) manual - 70 p
d) scoring stencils - 80 p per set
e) specimen set - £ 1.50
Postage extra on all items

Age range: 14 - 18

Subscales: 8 scores - scientific, social service, clerical/sales, literary, artistic, computational, practical, outdoor

Administration time: 20-40 minutes

Technical data:

Reliability: (see section under Norms:)

Validity: Satisfactory evidence of validity of the Guide is indicated in two studies using the Experimental Version:
1) In February 1968 a follow-up study was conducted of school children who had completed the Experimental Version in December 1966; a short questionnaire tapped information about the job they had entered, how it was obtained, whether or not it was seen as offering a permanent career. Results from the first 200 boys were analyzed with respect to the type of job entered, and were reported in the 1968 annual conference of the British Psychological Society.
2) A short supplementary questionnaire given to groups of adults (N = 548) whose jobs were representative of the 8 Guide categories, yielded significant ($t = 2.586$, $p<.01$) mean differences, in all 8 Guide categories, between

'same' groups and the rest of the sample. Although this study was conducted with an adult sample and results cannot therefore be generalized without qualification to apply to school children, it nevertheless seems to give valid indication of a person's occupational interests.

Reliability: Spearman Brown coefficients for reliability, ranging from .67 to .89, were derived from samples of 560 boys and 550 girls aged 14 - 15 in January 1969; Test/retest reliability coefficients, using the Experimental Version of the Guide, ranging from .56 to .79, were derived from a sample of 97 school children aged 15 - 17 with a 6 month interval (January 1967 and June 1967).

Norms: No norm tables are given in the Guide. The author states the reason for this as "the use of such tables is inappropriate in the case of instruments of this type where all the scores are interrelated."

Observations:

Administrative considerations: Manual instructions for administration and score interpretation of the OIG are thorough. Considerable statistical evidence presented in the manual is accompanied by helpful nonstatistical explanations of the implications of the analysis. Arrangements have not yet been made for a scoring service, which is a definite handicap when the Guide is used for large group testing.

Usability: There seems to be little or no major limitation, with respect to administration time, cost and scoring of the OIG, and interpreting results for students.

Recommendations for use: One reviewer (D. Campbell in an MMY review of the OIG) states that the Guide appears to be useful in its present form for its intended purpose - to help students ascertain the relative strengths of their interests in 8 important areas. The Guide also demonstrates its strength in the fact that the authors express concern for using research findings [and have done extensive research] for on-going improvement of their instrument.

BURKE INVENTORY OF VOCATIONAL DEVELOPMENT

Descriptive data:

Publisher: Charles Burke
Box 494
Westport, Connecticut

Publication date: c. 1958

Cost: a) 1 form (3 pp.)
b) directions (1 p.)
c) specimen set - $ .25
Postpaid

Age range: grades 8 - 16 and adults

Subscales: 307 occupational titles

Administration time: 15 - 30 minutes

Technical data:

Reliability: No data reported

Validity: No data reported: the author believes that the Inventory does not readily lend itself to traditional validation studies, as it is not a test.

Norms: No data reported

Subscale intercorrelations: None

Observations:

Administrative considerations: The inventory itself is not easy to take - responses, from 1 to 3 numbers plus possibly circling the occupational title, are placed in the margins. Numbers to be marked beside each occupational title may be easily conf ed, i.e., number "1" indicates occupation the student has thought of entering and may be easily confused with the meaning for number "2", which indicates that the student would like to know more about the particular occupation.

Usability: The inventory is easy to administer and take. It appears to be must useful when given shortly before a counseling interview in which the student's vocational interests and development are the focal point.

Recommendations for use: The author states that when used as a self-inventory, it serves as a springboard for the counseling interview, for it helps in understanding a student's occupational self-concept. The assumption that counselors may use this inventory to "enrich significantly the interview content and shed a little light on vocational development" without aids and/or supportive information is questionable.

CALIFORNIA LIFE GOALS EVALUATION SCHEDULE (CLGES)

Descriptive data:

Publisher: Western Psychological Services
Box 775
Beverly Hills, California

Publication date: 1966 - 69

Cost: 2 editions -
a) consumable booklet, Form D-S (1966, 6 pp.) - $6.50 per 25 tests
b) manual (1969, 32 pp. plus tests and profile) - $5.00
c) profile (1966, 2 pp.) - $8.50 per 100 profiles
d) examiner's kit of 25 tests, 25 profiles and manual - $11.50
e) reusable booklet, Form D-M (1966, 4 pp.) - $6.50 per 25 tests
f) separate answer sheets must be used - $8.50 per 100
g) scoring stencils - $4.50 per set

Age range: 15 and over

Subscales: 10 scores - esteem, profit, fame, leadership, power, security, social service, interesting experiences, self-expression, independence.

Administration time: 30 - 45 minutes

Technical data:

Reliability: Sinha (1964) reported Kuder-Richardson and Spearman-Brown coefficients of reliability for Forms A and B ranging from .87 to .98 (this may not hold for the present D-M and D-S forms); he also reported Kuder-Richardson reliability coefficients for Form C ranging from .82 to .89. A test/retest study by the author of 41 upper division and graduate students, using Form D-M with a 90 day interval produced reliabilities ranging from .71 to .86.

Validity: According to the author, only clues to the predictive validity of the instrument are presently available: 1) use of the CLGES in VA Hospitals with small samples, indicates that male patients who score high on schedules of esteem, profit, fame and power return to the community more quickly and remain out of the hospital longer than those who score low; 2) in small samples of young business executives, those with higher scores on schedules of esteem, profit, fame and power received better ratings from superiors than those who scored low; 3) in a sample of 19 between 50 and 60 years of age who had 2 or more high schedule scores, especially in self-expression, independence, or interesting experiences, there appeared to be less difficulty in planning the next decade than those who scored low; and 4) in evidence where occupation and academic major means of parents and students are presented, graduate students in Business Administration obtain similar schedule scores to those of their fathers who are in business; similar findings are reported of sons with fathers in the medical field. Consensus regarding general statements and suggested item changes indicated the authors' belief that reasonable construct validity was present, but few statistical data are available.

Norms: Different norms are used for males and females. The normative group comprises a population of university students, parents and grandparents. Mean scores on each of the life goals are presented for the mothers and fathers in terms of occupation; these are all tenative as they are based on relatively small samples (Ns of 309 and 363).

Subscale intercorrelations: Not reported

Observations:

Administrative considerations: The CLGES is not difficult to administer or score, construction of individual profiles is also easy. The CLGES gives considerable space to interpretation, for it is intended to elicit responses to identify "future-oriented motivating

attitudes" (Milton Hahn, manual). The manual is helpful in such interpretation, but it should be noted that general guidelines, rather than empirical data are the major source of aid to interpretation.

Usability: The cost of the evaluation schedule and administration time are in no way prohibitive; the CLGES may be administered easily in one class period with scoring taking a couple of minutes each. Interpretation of the responses and conduct of the counseling interviews generated by the instrument can be time consuming, of course.

Recommendations for use: The CLGES is still in its experimental phase (Lundin, review in MMY), and norms, reliabilities, and validities are still tentative. When used with other tests and interviews, the results of the CLGES can only be seen as positive input in obtaining noncognitive information about the student.

CALIFORNIA OCCUPATIONAL PREFERENCE SURVEY (COPS)

Descriptive data:

Publisher: Educational and Industrial Testing Service
Box 7234
San Diego, California

Publication date: 1966

Cost: a) consumable edition (1966, 5 pp.) - $5.00 per 25 tests
self-interpreting profile (1966, 4 pp.) - $4.50 per 50 profiles
b) reusable edition (1966, 4 pp.) - $4.25 per 25 tests
profile for high school (1966, 1 p.) - $3.50 per 50 profiles
profile for college (1968, 1 p.) - $3.50 per 50 profiles
separate answer sheets (Digitex, IBM 1230) - $4.50 per 50 answer sheets
IBM hand-scoring stencils - $7.00 per set
scoring service - $ .85 or less per test
c) manual - $ .75
d) specimen set - $2.25

Age range: grades 9 - 16 and adults

Subscales: 14 scores - science professional, science skilled, technical professional, technical skilled, outdoor, business professional, business skilled, clerical, linguistic professional, linguistic skilled, aesthetic professional, aesthetic skilled, service professional, service skilled.

Administration time: 30 - 40 minutes

Technical data:

Reliability: Split-half reliability coefficients, based on a sample of 290 and split-half estimates corrected for test length by the Spearman-Brown formula, range from .86 to .95. Test/retest correlations based on a

sample of 113 high school students with a one week interval range from .81 to .91. Stability coefficients are also reported for 1-week, 1-year, and 2-year intervals; the median coefficient for the 1-year study is .66; the median coefficient for the 2-year study is .63.

Validity: Validity is demonstrated through factorial confirmation of the structure of occupational interest measured by the COPS. An experimental set of interest items was developed to represent a theoretical structure of occupational interests in terms of a 2-way classification of occupational activities into groups and levels within each group. The set of items was administered and resulting scores submitted to factor analysis; 8 group interest factors were derived. Clusters of occupational activities were submitted for verification to patterned equamax rotation, yielding the 14 factors represented in the COPS. A wide variety of Profiles were obtained from samples of individuals who have already chosen a specific occupation, thus providing evidence of the validity of the COPS in terms of the relationship between COPS scales and occupational choice.

Norms: Percentile conversion tables are available for high school male and female samples. Percentile norms are available both for high school and for college and adult populations. More specific information on the norm groups is not reported in the manual.

Subscale intercorrelations: Intercorrelations among the COPS scales, based on samples of 180 high school girls and 158 high school boys, range from +.12 to +.85 for the girls and from +.16 to +.87 for the boys.

Observations:

Administrative considerations: A shortcoming of the scales may be that the scores are interpreted as percentile ranks on general norms, which are not clearly defined so that it is not clear what populations they represent. A helpful manual of interpretation accompanies the survey.

Usability: The COPS is relatively easy to administer, easy to mark, and easy to score.

Recommendations for use: The COPS is "designed to be equally useful with college students, high school students who are planning to attend college, and those who are not." (J. Bodden, review in the MMY). The COPS uses "homogeneous keying, and, therefore, high scale scores do not always correspond to the interests of persons actually working in the 'logical' or 'expected' occupation." (Bodden). French, in his review in the MMY, cautions that the COPS is easily fakable and ...subject to variability of individual standards as to what is meant by liked or disliked.

CAREER DEVELOPMENT INVENTORY (CDI)

Descriptive data:

Publisher: unpublished - all rights reserved by Donald E. Super, David J. Forrest, et al.

Publication date: c. 1972

Cost: not indicated

Age range: adolescent boys and girls

Subscales: 4 scales, 2 attitudinal, 1 cognitive and a total scale, respectively - planning orientation, resources for exploration, information and decision making, total career development scale.

Administration time: 30 - 45 minutes

Technical data:

Reliability: Test/retest reliability coefficients for the CDI (also referred to as the revised Career Questionnaire), based on a sample of 82 male and female 10th graders selected from classes in 4 different schools representative of Genesee County, Michigan with a test interval of between 2 and 4 weeks, range from .71 to .87.

Validity: Items for Scales A and B were determined by factor analysis of an earlier version of the instrument and were individually studied by the authors and, on the basis of psychometric and conceptual adequacy, the content validity of the CDI was established. In order to determine both criterion-related and construct validity of the instrument, the authors examined "the relationship of the CDI to 4 other relevant but not necessarily causal or consequential variables": a rating of the level of the father's occupation, a rating of the student's own vocational preference level, aptitude as measured by the SRA-

Verbal Test, and grade-point average for 9th grade courses. Correlation coefficients of the CDI with the 4 concurrent criterion variables are reported in the preliminary manual; the correlation coefficients, most of them statistically significant, range from .15 to .59. When compared with each of 3 instruments which attempt to measure aspects of vocational maturity, it was found that: 1) correlation coefficients for the CDI Scales with the Attitude Scale of the Vocational Development Inventory (Crites, 1965, 1969) range from .10 to .42 (a moderate to low relationship); 2) correlation coefficients for the CDI Scales with the Readiness for Career Planning Scale (Gribbons and Lohnes, 1968, 1969) correlate substantially with a range of .61 to .75; and 3) correlation coefficients for the CDI Scales with The Cognitive Vocational Maturity Test (Westbrook and Clary, 1967; Westbrook and Cunningham, 1970) range from .18 to .46.

Norms: Samples for the CDI Scales are normed with male and female 10th grade students representing large urban, suburban, and small rural schools. Raw scores and percentiles for Scales A, B, and C and for Total Scores are reported in the preliminary manual.

Subscale intercorrelations: The authors reported that "a factor analysis of the 3 scales for a sample of 200 boys and girls produced one factor accounting for 57% of the variance." They conclude that "this finding provides the rationale for presenting a total score for the 3 scales and calling it an indication of vocational maturity in general."

Observations:

Administrative considerations: The CDI is easily administered and scored. Templates of stencils for hand scoring are not available but can be easily made. Raw scores obtained by hand scoring are more meaningful when converted to standard scores. No machine scoring service is available at this time.

Usability: The authors stated that "the reading difficulty of the CDI makes its use appropriate at and above the sixth grade, and its vocabulary and content make it acceptable to junior and senior high school students in any grade."

Recommendations for use: This inventory is designed to "view the individual in terms of his actual life stage" and to "assess his behavior in coping with the vocational developmental tasks of this stage in comparison with the coping behavior of others in the same stage." Research findings support use of this instrument for such a purpose. When released by the authors, the CDI should be considered seriously for use in a school's counseling program.

EVALUATION MEASURES FOR USE WITH NEIGHBORHOOD YOUTH CORPS ENROLLEES

Descriptive data:

Publisher: Educational Testing Service
Princeton, New Jersey

Publication date: c. 1967 - 68

Cost: No information available

Age range: 16 - 21

Subscales: job knowledge, vocational plans and aspiratio: s, interest in vocational tasks, attitude toward authority, self-esteem, deferred gratification, job seeking and job holding skills, motivation for vocational achievement, practical reasoning - map reading, practical reasoning - zip coding, practical reasoning file card sorting, enrollee rating scale, counselor and work supervisor rating scale.

Administration time: approximately 2 1-hour sessions with a break between sessions

Technical data:

Reliability: Internal consistency coefficients, based on either the Spearman-Brown formula applied to a split-half correlation, Kuder Richardson estimates, or the average inter-item correlation stepped up by the Spearman-Brown formula, are reasonably acceptable reliability coefficients for the male sample (N 123) range from .37 to .96 (with an exceptional .06 r the "delay of reinforcement" measure) and from .29 to .90 (again with an exceptional .07 for the "delay of reinforcement" measure) for the female sample (N = 133). Of the 49 correlation coefficients, 16 are .70 over >, 19 are .60 or >, and 4 are .50 or <.

Validity: Validity coefficients, based on the correlation of counselor and work supervisor criterion ratings with enrollee measures, can be considered low to moderate; of 82 validity coefficients, 11 are significant at the .01 level and 15 are significant at the .05 level. It may be noted that there are twice as many significant validity coefficients in counselor ratings as in work supervisor ratings.

Norms: No normative data is available.

Subscale intercorrelations: Item means and variances were computed for each of the 13 measures, along with the item-total test intercorrelations for the rural and urban samples (within the male and female subgroups separately). This data is presented in the manual.

Observations:

Administrative considerations: Administration of the measures is lengthy. The design of the measures is such that it is prohibitive for large group testing: Since items are read aloud group size is kept at a minimum (no more than 15). In addition, the examiner's role may vary from test session to session or site to site, and may present the possibility of continuation of responses in a variety of ways.

Usability: The evaluation measures were specifically designed for use with a particular group. Wider use of the measures is inappropriate until further research is done with more extensive sample populations.

Recommendations for use: Statistical data present in the studies of the evaluation measures is weak: there is a lack of adequate supportive evidence when considering use of the measures with general student populations. Criterion evaluations are highly generalized and there are implications of a "halo" effect. Because of the limited sample used in generating empirical evidence of the validity and reliability of the measures, it is recommended that further studies with a more homogeneous sample be conducted before wider application of the measures be made.

HOLLAND VOCATIONAL PREFERENCE INVENTORY (VPI)

Descriptive data:

Publisher: Consulting Psychologists Press, Inc.
577 College Avenue
Palo Alto, California 94306

Publication date: c. 1953 - 65

Cost: a) 1 form (1965, 2 pp.) - $1.25 per 25 sets of tests
b) manual (1965, 65 pp.) - $3.00
c) profile (no date, 2 pp.) - $3.50 per 50 sets on answer sheets & profile
d) separate answer sheets must be used
e) scoring stencil - $1.00
f) specimen set - $4.50 per set
Postage extra on all items

Age range: grades 9 - 12 and adults

Subscales: 10 scores - realistic, intellectual, social, conventional, enterprising, artistic, self-control, masculinity, status, infrequency, and acquiescence

Administration time: 15 - 30 minutes

Technical data:

Reliability: Corrected split-half (Kuder-Richardson formula 21) reliabilities based on 6, 289 male college freshmen range from .57 to .89 on the 11 scales with a median of .84; reliabilities for 6,143 females range from .50 to .89 with a median of .77. Test/retest reliability coefficients over a 1 year period for a sample of 17 college freshmen ranged from .65 to .98 with a median of .83. Over a period of 4 years, the coefficients for a sample of males (N = 432) ranged from .41 to .61 with a median of .52, while for a sample of females (N = 204) the reliability coefficients ranged from .27 to .56. Holland explains that these low reliabilities over the 4 year period may

be due to the possibility that the VPI "may be unreliable over long intervals of time" (Manual, p. 10). An equally plausible interpretation would be that the attributes being measured by the VPI are developing and changing during the 4 years.

Validity: Studies of construct validity tend to fall into 4 different groups; findings were as follows -
1) the VPI differentiates normals, psychiatric and TB patients, and psychopaths; generally, appropriate and statistically significant differences were obtained (see Holland, 1968).
2) the VPI differentiates psychotic and non-psychotic patients (based on data from Fairweather et al., 1960).
3) VPI scales have been intercorrelated with several personality inventories and scales: California Psychological Inventory, Minnesota Multiphasic Personality Inventory, Sixteen Personality Factor Questionnaire, National Merit Student Survey, and Barron's Independence of Judgment, Originality and Complexity-Simplicity; generally, the observed relationships lend support to the construct validity and meaning attributed to the VPI scales.
4) some VPI scales are significantly correlated with supervisory ratings and job satisfaction for a sample of 124 supervisors and subordinates (Lopez, 1962).
In a series of studies of vocational choice, the VPI has been found to be predictive of choice of major field and vocation over one- and two- year intervals for student of high aptitude (Holland, 1962).
Holland has rated the predictive validity as "moderate."

Norms: The VPI has been administered to a wide range of normal and abnormal people. Samples are normed with college freshmen, employed adult males, high school seniors, research personnel, security salesmen, as well as drug addicts, psychiatric TB patients, male psychopaths, and others.

Subscale intercorrelations: Intercorrelations of the 10 scales (omitting Acquiescence) shows only 4 of 45 intercorrelations for the sample of boys to be .30 while only 7 of 45 were .30 for girls.

Observations:

Administrative consideration: The VPI is generally sound in its design, intent, and ease with which it may be administered. There are several limitations which should be noted here: 1) validity studies need to be conducted in non-college populations; 2) in its present form, many occupational titles are not appropriate for women; 3) occupational titles included may cover too wide a spectrum of jobs; and 4) validity of the VPI seems to be dependent on individual exposure to the occupational titles mentioned.

Usability: Johnston, in his review of the VPI in the MMY, states concisely that the VPI is an inexpensive, straightforward, easy to administer and score, non-threatening personality inventory of value to the counselor both in screening and counseling.

Recommendations for use: The VPI is a well-developed inventory based on a soundly conceived and readily understood theory of personality and occupational classification. According to Holland, it has been designed primarily to yield a broad range of information about the subject's interpersonal relations, interests, values, self-conception, coping behavior, and identifications.

JIM SCALE (JUNIOR INDEX OF MOTIVATION)

Descriptive data:

Publisher: Ohio State University
[illegible] West 19th Avenue
Columbus, Ohio [illegible]

Publication date: 1965

Cost: a) 1 form (1965, 3 pp.) - $3.75 per 100 tests
b) mimeographed directions (1962. 1 p.)
c) statistical data (1962, 2 pp.)
d) specimen set - free
Postpaid

Age range: junior high school students

Administration time: c. 30 minutes

Technical data:

Reliability: Split-half corrected reliability coefficients for 243 college students yield an r of .67; split half corrected reliability coefficients for 111 students in grades 11, 12 and 13 yielded an r of .83; split-half corrected reliability coefficients for 57 students in grades 10, 11 and 12 yielded an r of .83. Test/retest reliability coefficients for 717 7th- and 8th-grade students with a 10 month interval yielded an r of .70.

Validity: Not reported

Norms: Means and standard deviations are available for a national sample by sex and grade level (grades 7 through 12). Figures are available on "Comparison of JIM Scale Norming Sample with Total U. S. Population Distribution."

Observations:

Administrative considerations: Administration and scoring of the instrument present no problems. Any meaning derived from the scale, however, appears to be directly related to the individual student in his school.

Usability: There are no major limitations in terms of cost and test administration of the JIM Scale.

Recommendations for use: The JIM Scale purports to ascertain students' motivation toward school. It is difficult to find sufficient supportive and conclusive informatic. to justify use of the scale for this purpose. Not only the absence of validating data, but also many other weaknesses of the scale, leave room to question its purpose and rationale and whether the scale measures what it set out to measure.

MINNESOTA VOCATIONAL INTEREST INVENTORY (MVII)

Descriptive data:

Publisher: The Psychological Corporation
304 East 45th Street
New York, New York 10017

Publication date: 1965

Cost: 1 form with 4 editions:
a) NCS Edition (1965)
test-answer sheet (6 pp.) - $4.50 per 25
scoring service - $ .50 to $ .85 per test (daily service)
scoring service - $ .33 to $ .45 per test (weekly service, $11.25 minimum)
b) MRC Edition (1965-66)
1 form (1965, 7 pp.) - $5.50 per 25 tests
profile (1965, 2 pp.) - $2.00 per 50 profiles
separate answer sheets (MRC must be used) - $2.50 per 50 answer sheets
direction (1965, 6 pp.) - $7.00 per set of hand-scoring stencils & directions
Hand-scoring stencils
scoring service - $ .33 to $ .45 per test ($12.50 minimum
c) manuals - $ .75
d) specimen set - $1.00 per set
Postage extra on all items

Age range: males age 15 and over not planning to attend college

Subscales: 30 scores - 21 occupational scales: baker, food service manager, milk wagon driver, retail sales clerk, stock clerk, printer, tabulating machine operator, warehouseman, hospital attendant, pressman, carpenter, painter, plasterer, truck driver, truck mechanic, industrial education teacher, sheet metal worker, plumber, machinist, electrician, radio-TV repairman; and 9 area (or homogeneous) scales: mechanical, health service, office work, electronics, food service carpentry, sales-office, clean hands, outdoors.

Administration time: [illegible] minutes

Technical data:

Reliability: Test/retest reliabilities for the Occupational Scales range from .[illegible] to .86 based on 98 students from the Dunwoody Industrial Institute, Minneapolis, Minnesota, over a 30-day interval; test/retest reliabilities for the Homogeneous Scales range from .[illegible] to .87 based on the same sample.

Validity: Validities of the Occupational Scales are expressed in terms of per cent overlap between the criterion group (72<N>519) and Tradesmen-in-General (N = 240). For the 21 MVII Scales, the median per cent overlap is [illegible]% (the range being from 27% to 63%), a respectable degree of separation; the point-biserial correlation coefficients range from .[illegible] to .80. A cross-validation group was used when available. Several studies have demonstrated the usefulness of interest measures for the prediction of school grades, especially when ability is held constant, and predictive of job satisfaction.

Norms: Samples are normed with employed workers in a variety of occupations, enlisted men in the United States Navy, and persons in apprenticeship training in vocational schools and other training settings. Emphasis in research has been on the study of those persons who enter occupations which are characteristically entered by persons who do not go on to college.

Observations:

Administrative considerations: Physical characteristics of the inventory are good, with the exception of the hand-scoring procedure: scoring stencils are not accurately aligned with answer sheets; machine scoring services are more accurate and practical.

Usability: The inventory yields easily interpreted systematic information about an individual, information which is helpful in problems of occupational choice for those who will not make it through college.

Recommendations for use: Westbrook, in his review of the Inventory in the MMV, states that the MVII should be used cautiously in educational and vocational guidance at the secondary level because its reliability and validity with high school pupils have not yet been established.

OHIO VOCATIONAL INTEREST SURVEY (OVIS)

Descriptive data:

Publisher: Harcourt Brace Jovanovich, Inc.
New York

Publication date: 1970-71

Cost: a) 1 form (1971, 16 pp.) - $9.50 per 35 tests
b) directions for administering (1970, 14 pp.)
c) manual for interpreting (1971, 74 pp.) - $2.50
d) separate answer sheets (MRC) must be used - $4.00 per 35 answer sheets
e) specimen set - $1.75 per set
f) scoring service - $ .60 and over per test (tests cannot be scored locally)
Postage extra on all items

Age range: grades 8 - 12

Subscales: 24 scores - manual work, machine work, personal services, caring for people or animals, clerical work, inspecting and testing, crafts and precise operations, customer services, nursing and related technical services, skilled personal services, training, literary, numerical, appraisal, agriculture, applied technology, promotion and communication, management and supervision, artistic, sales representative, music, entertainment and performing arts, teaching-counseling-social work, medical.

Administration time: 60 - 90 minutes

Technical data:

Reliability: Estimates of scale stability were obtained by test/retest of selected groups of 8th and 10th grade students (1,251 8th graders from 5 Arkansas schools and 1,113 10th graders from 18 Wisconsin schools) over an interval of 2 weeks. Reliability coefficients ranged from .72 to .84 for male and female 8th grade samples, and from .74 to .90 for male and female 10th grade samples.

Validity: The potential of the OVIS for classifying students in different high school programs was investigated by using discriminant analysis. Second semester seniors who were identified as successful and satisfied with their program were selected as the sample for this study. Validation and cross-validation results for those classified correctly ranged from 34% to 81% for males and from 18% to 84% for females. Males in a general high school program were most difficult to classify, and females in both general and vocational programs were classified at the chance level or less. [Caution that further study is needed before the OVIS can be used for this purpose.]

Norms: Samples are normed on males and females grade 8-12 in defined geographic regions in the United States. Selected percentiles, means, and standard deviations are presented by grade and sex for the total normative group; means and standard deviations of the scores are reported for each scale by sex and geographic region.

Subscale intercorrelations: Item performance and scale homogeneity were assessed according to standards prescribed for the development of the instrument. Item-scale correlation matrices were generated for 1000 males and 1000 females drawn from the 8th and 10th grade standardization groups. Analysis revealed that 259 of the 280 items satisfied all 3 criteria. All 280 items satisfied the third criterion. Scale independence was investigated by grade and by sex for the total standardization sample and for the 8th and 10th grade reliability samples. With the exception of scale 4 (personal services) and scale 7 (crafts and precise operations) the 24 OVIS Scales were relatively independent.

Observations:

Administrative considerations: This is a well-designed inventory with easy to follow directions and aids for interpretation in the examiner's manual. The tests cannot be scored locally, however; the

impossibility of hand-scoring this instrument may be a limiting factor when considered for use.

Usability: Extended test-taking time necessitates special arrangements when administered in a typical school setting. Cost may be prohibitive when considering realistic use as an aid to determining a student's course of study in relation to his occupational interests.

Recommendations for use: There seem to be several significant limitations of the OVIS - a lack of validity data, little or no concurrent, predictive or any kind of criterion-related data, the need (as expressed by the authors) for internal consistency scale reliabilities, the impossibility of hand-scoring the instrument. It would seem necessary that more supportive data be generated and that the instrument be used advisedly. The instrument does, however, offer the distinct advantage (when used in combination with the GATB) of identifying occupational patterns for which a subject's interests and aptitudes are compatible and incompatible.

RATING SCALES OF VOCATIONAL VALUES, VOCATIONAL INTERESTS AND VOCATIONAL APTITUDES (VIA)

Descriptive data:

Publisher: Educational and Industrial Testing Service
Box 7234
San Diego, California

Publication date: 1966

Cost: a) 1 form (2 pp.) - $3.50 per 25 tests
b) profile (1 p.) - $3.00 per 25 profile sheets
c) manual (8 pp.) - $ .50
d) specimen set - $2.25
e) scoring service - $ .45 or less per scale
Postage extra on all items

Age range: grades 8 - 16 and adults

Subscales: 3 scales - aptitudes, interests, values;
20 scores for each scale - administrative, animal, artistic, athletic, clerical, commerical, computational, creative, dramatic, executive, literary, manual, mechnical, musical, organizing, plant, scholastic, scientific, service, socializing.

Administration time: 45 - 50 minutes

Technical data:

Reliability: Not reported

Validity: Not reported

Norms: Norms for the VIA are based on responses of high school and college students; percentile conversion tables based on responses of 645 individuals are presented separately for males and females but are not available.

Subscale intercorrelations: To analyze the interrelationship

among the vocational areas, responses of high school seniors and college freshmen (N = 240) were submitted to factor analysis. Twenty factors were extracted by the principal component method and all 20 were rotated by the normalized varimax method. Eighteen of the factors were interpreted as group factors, one as a singlet and one as a residual. Intercorrelational data are reported among the 20 vocational category scores for each of the three Rating Scales VIA.

Observations:

Administrative considerations: The VIA scales are basically self-administering forms with instructions for the taker on one side and activities to be rated on the other; the format is simple and compact and the scoring easy. The scales may be hand- or machine-scored. Furst (review of VIA in MMY) believes that, on the basis of inspection and a small tryout, as many as a fifth of the 60 items are so general, ambiguous, or sophisticated as to make interpretation difficult.

Usability: The VIA seems to be useful as a tool for self-assessment with respect to ipsative vocational aptitudes, interests, and values.

Recommendations for use: There is little or no empirical data available on the VIA and norms are not adequately described. Despite the relative ease with which it is administered and scored, the VIA appears to lack supportive and conclusive evidence of reliability and validity. Caution is recommended in using these scales.

STS YOUTH INVENTORY - FORM G

Descriptive data:

Publisher: Scholastic Testing Service, Inc.
480 Meyer Road
Bensenville, Illinois 60106

Publication date: 1956 - 67

Cost: a) Form G (1967, 7 pp.) - $ .15 per copy for 1 - 499 copies
$ .13 per copy for 500 - 999 copies
$ .11 per copy for over 100 copies
b) separate answer sheets (digitex scorable) - $ .10 per answer sheet
c) manual - no price quoted
d) profile - no price quoted
e) scoring service - $7.50 and over per 100 tests
f) Spanish edition available
Postage extra on all items

Age range: grades 7 - 12

Subscales: 5 area scores - my school, after high school, about myself, getting along with others, things in general.

Administration time: 30 - 35 minutes

Technical data:

Reliability: Split-half reliability coefficients (using the Spearman-Brown formula) for the Form G area scores, based on 2,400 sample cases, range from .86 to .96 with a median value of .93.

Validity: The authors justify the content validity of the STS on the basis of presenting a rationale for selection of items and stressing the importance of truthfulness

on the part of the student during actual administration of the inventory. No statistical data are available, however, for either content or construct validity of the STS.

Norms: Means, standard deviations and percentile norms reported in the manual are based on a stratified random sample of 2,400 students in grades 9 through 12 for the 5 area scores; stratification variables were region, rural or urban residence, and sex.

Subscale intercorrelations: The 5 area scores yielded significant intercorrelations ranging from .47 to .75, with a median value of .60 (36 percent common variance). Item factor analysis studies by grade, by sex, by grade by sex, and for the entire composite group - a total of 15 studies - which yielded 4 common factors (interpersonal relationships, social conscience, emotional security, vocation, and college) and different factors within the separate studies by sex and by grade, were undertaken.

Observations:

Administrative considerations: The Youth Inventory is easy to administer and interpret, especially when aided by the manual guide to interpretation. The authors indicate that the STS may be used for 7th and 8th grade students as well as those students in grades 9 through 12, though no normative information is available for them; it appears that the reading level and difficulty of the inventory are in fact appropriate for use with 7th and 8th grade students.

Usability: The STS Youth Inventory - Form G, a revision developed from over 20 years experience with various Youth Inventory instruments, is "intended primarily as a means of providing teachers and counselors with information about the feelings and attitudes of their students" (Shimberg, manual).

Recommendations for use: The statistical data which are available for the Youth Inventory, though limited especially in information about validity of the instrument, are supportive. The information generated from the Inventory has been proven to be helpful in recognizing students' feelings, attitudes, and needs when used with other cognitive and noncognitive instruments.

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APPENDIX C

"CAREER EDUCATION ASSESSMENT INSTRUMENTS:

Grades 1) - 12"

Dr. Edward G. Haldeman
Glassboro State College

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DEFINITION OF TERMS

Validity	How well does it measure what it is supposed to measure?
Reliability	How consistently it measures what it is supposed to. Split-half - Test - Retest (Kuder-Richardson)
Adequacy (All Material Represented)	Is all the material represented?
Objectivity (Bias opinions, etc.)	Eliminates bias opinions or judgments
Ease of Administration	Ease of time. Approximate number of minutes.
Scoreability	Simple, rapid and routine
Comparability	Duplicate forms - available adequate norms
Economy	Change of editions and cost
Utility	Satisfactorily serves a useful purpose
Interpretative	Can you interpret results to students, parents and teachers?
Usability	Not out-dated - norms are current
Attractiveness	Pleasing appearance - good size print
Reading Level	Recommended levels of use

Occupational Aspiration Scale

Author and Publisher	Holler, A. D. & Miller, L. W. Publishers; Dr. Alfred S. Schenkman 3 Mount Auburn Place Cambridge, Massachusetts 02138
Validity	No validity given. Probable construct validity good.
Reliability	.80
Adequacy (All Material Represented)	Limited to 80 occupations
Objectivity (Bias opinions, etc.)	Objective
Ease of Administration	20 minutes
Scoreability	Very simple
Comparability	No duplicate forms. Limited normative data.
Economy	$1.95 specimen set
Utility	Yes
Interpretative	Yes
Usability	Current
Attractiveness	Simple to use
Reading Level	Fine for high school, however no definitions
Comments	

Vocational Preference Inventory

Author and Publisher	John L. Holland, Publisher Consulting Psychologist Press
Validity	Construct & predictive validity good.
Reliability	Moderate to high reliability
Adequacy (All Material Represented)	Limited to 160 occupations
Objectivity (Bias opinions, etc.)	Objective
Ease of Administration	30 minutes
Scoreability	Very simple
Comparability	No alternate forms
Economy	$2.50 specimen set
Utility	Yes
Interpretative	Interpretor needs professional training
Usability	Current
Attractiveness	Simple
Reading Level	Adequate for adults
Comments	Should be used with people over 14 years of age with no brain damage and in conjunction with other data.

Self-directed Search

Author and Publisher	John L. Holland, Publisher Consulting Psychologist Press
Validity	Still in the research process
Reliability	Moderate
Adequacy (All Material Represented)	Cover 95% of working force
Objectivity (Bias opinions, etc.)	Objective and private
Ease of Administration	One class period--up to 50 minutes
Scoreability	Simple, but students may need some help
Comparability	Does not apply
Economy	$2.50 specimen set
Utility	Very
Interpretative	Self-interpreted, but professional help useful
Usability	Ideal for career development use
Attractiveness	Simple to use and attractive
Reading Level	Adequate for adults
Comments	Recommend for use with people over 15 years of age

Philosophies of Human Nature Scale

Author and Publisher	Dr. L. S. Wrightsman Box 512 George Peabody College for Teachers Hashville, Tennessee 37203
Validity	Validity strong
Reliability	Moderate
Adequacy (All Material Represented)	Cover six philosophical scales
Objectivity (Bias opinions, etc.)	Objective
Ease of Administration	Up to one hour
Scoreability	Simple
Comparability	No alternate forms
Economy	$3.00
Utility	Still a research tool
Interpretative	No interpretative or administrative manual. User would have to use the research.
Usability	Current
Attractiveness	Simple and mimeographed
Reading Level	Adequate for adults
Comments	

The California Life Goals Evaluation Schedules

Author and Publisher	Milton and Hahn, Psychologist Services
Validity	Still being researched
Reliability	Reported from 71 to 98 for different form
Adequacy (All Material Represented)	Limited to around 50 occupational groups
Objectivity (Bias opinions, etc.)	The use of class systems can be very subjective
Ease of Administration	About 45-60 minutes
Scoreability	Simple and objective
Comparability	Two forms DS and DM booklet form and a reusable booklet form
Economy	$5.00 specimen set
Utility	Very useful manual suggests areas for further research
Interpretative	Should be interpreted by project counselor or psychologist with caution
Usability	Current
Attractiveness	Well organized and attractive
Reading Level	Reading more suitable for adults. Some words and concepts would be difficult for usual high school population.

Occupational Interest Analysis Scale

Author and Publisher	Eugene J. Benge, A. C. Croft Co. 1832 Franklin Street Santa Monica, California 90404
Validity	Not available
Reliability	Not available
Adequacy (All Material Represented)	Limited to 96 occupations
Objectivity (Bias opinions, etc.)	Objective
Ease of Administration	About 5 minutes
Scoreability	Simple scoring key
Comparability	No duplicate forms
Economy	$3.50 specimen set
Utility	Of dubious value
Interpretative	Difficult to generalize from
Usability	Dated copyright 1943
Attractiveness	Attractive
Reading Level	Appropriate for intended group
Comments	