

Appraising Career Maturity

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Running Head: Maturity Assessment

Career education promotes readiness for the future. It develops this readiness to cope with future life tasks by orienting students to predictable aspects of their personal future. Students who attain the objectives of career education programs are familiar with the broad outlines of their future, relate their present behavior to future goals, and adapt well to current developmental tasks constituting the pathway into their future. In other words, career maturity is essentially a psychological projection into the subjective future.

A wide variety of measures are available to assess students' career maturity, or "psychological futurity". However, the growing number of career maturity inventories has outstripped counselors' understanding of these increasingly sophisticated and complex measures. The differences among measures bearing similar titles is often confusing (Jepsen & Prediger, 1981; Stenner & Rohlf, 1982) and has led to their misapplication or misinterpretation. This paper provides a technical update on career maturity measures. In the discussion which follows, an analysis of the constructs defining career maturity leads to a framework for understanding the purpose of various measures. This framework organizes the subsequent presentation of career measures.

Career maturity can be defined as readiness to cope with the vocational development tasks. In the initial effort to appraise career maturity, Super and Overstreet (1960) separated the task and coping aspects of this definition into Vocational Maturity I and II. Vocational Maturity I (VMI) focused on tasks. Vocational development tasks are social stimuli, or problem-solving experiences. These tasks proceed in an orderly manner and constitute a unidimensional continuum of vocational development. The appraisal of VMI consists of determining which tasks a person is encountering and then comparing this actual degree of progress along the continuum of vocational development to the degree expected. Crites (1961) described five ways of measuring VMI.

Coping with vocational development tasks denotes the behaviors instrumental to

integrated response to the vocational stimuli. As an individual progresses along the developmental continuum, vocational behavior should become more independent, realistic, and purposeful. The appraisal of VMII consists of comparing an individual's methods of coping with the task being encountered to the typical behaviors of a group coping with the same task. In contrast to VMI, VMII is multidimensional because VMII includes a group of moderately interrelated variables.

In addition to behavioral responses, indices of VMII often include characteristics of the person. However, it is useful to distinguish behavior as a response variable from person variables. The distinction between an act and the actor presents a logical inconsistency because person variables have to be measured by behavior such as responses to self-report inventories. The justification for using a "stimulus-organism-response" paradigm in analyzing career maturity is that it allows consideration of the variables in an orderly fashion. The coherence provided by the paradigm facilitates systematic insight into the various kinds of variables measured by career maturity inventories. In the following discussion career maturity constructs that are considered input will be referred to as task or stimulus (S) variables, those viewed as throughput will be referred to as intervening or organismic (O) variables, and those viewed as output will be referred to as coping or response (R) variables.

The intervening organismic variables of career maturity are personal characteristics that connect vocational coping responses to developmental task stimuli. The pertinent characteristics include attitudes toward vocational development tasks and decisional competencies acquired prior to encountering a vocational task. The attitudes mediate readiness to cope with tasks while the competencies structure coping responses. For example, when confronted by the expectation that one should now choose a senior year elective, the person with a positive attitude toward resources for career exploration may be more likely to respond by talking with an advisor about alternatives. Also, the person who has skill in self-evaluation and knows the principles

of decision-making can use these competencies to decide on a more satisfactory and satisfying choice in response to the demand to select an elective.

In general, the intervening career maturity variables are abstractions less readily recognizable to the client than are the concrete behavioral responses which they mediate (Gottfredson, 1982). The behavior of choosing a course is easier to understand than are the attitudes and competencies which affect the decision-making which precedes the choice act. Though one can explain to clients how the decision-making process differs from the act of choosing, it is difficult to clearly explain the intervening variables. Even some counselors confuse decision-making with attitudes toward it and competencies bearing on it. The attitudes and competencies do not constitute the decisional process, they influence it. For example, positive attitudes toward exploration and knowledge of the structure of occupations are clearly distinct from decision-making stages and strategies (Jepsen & Dilley, 1974). Harren (1979) describes how both developmental and decisional models can be integrated in career assessment of college students.

The heuristic value of a S-O-R analysis of career maturity variables is starting to be seen in the recent literature. For example, Ware (1980) concluded that individuals with more mature attitudes toward choice respond differently to career related stimuli than those with less mature attitudes. Specifically, he reported that differences in level of maturity mediate the influence of models and direct reinforcement on career preferences. Also, Gribbons and Lohnes (1982) reported that individuals with a high degree of career maturity are more willing to change plans and move to new career paths in order to increase the congruence of their career choice.

As the S-O-R paradigm can be used to systematically study maturity constructs in career development theory, it can also be used to structure a comprehensive appraisal of clients' career maturity. A comprehensive career process appraisal should address all three classes of variables: vocational tasks (S), intervening characteristics

(O), and coping behavior (R). To thoroughly assess a person's career maturity and diagnose problems in vocational development, the counselor should appraise each class of variables. The following three questions are answered in a comprehensive appraisal of career maturity.

Tasks:

What is the client's degree of vocational development?

Identify the tasks that the client is confronting and ready to encounter.

Identify the tasks that the client is not aware of or is actively avoiding.

Characteristics:

What are the client's career-related attitudes and competencies?

Identify the critical attitudes that are mediating the client's interpretation of and readiness to cope with vocational development tasks.

Identify the client's skill at the competencies pertinent to structuring integrated responses to vocational tasks.

Coping Behaviors:

How is the client dealing with vocational development tasks?

Identify the client's reflective and active responses to vocational development tasks.

Identify the missing behaviors that should be added to the client's repertoire before pertinent vocational development tasks can be mastered.

Answers to these three process questions are then organized to complete the diagnosis of career problems and are combined with results of content appraisal. Based on this comprehensive appraisal, the counselor formulates counseling goals and prescribes interventions. For example, if problem appraisal reveals that a client is having difficulty adapting to vocational tasks, the counselor acts as a "process"

consultant to help the client modify methods of encountering the tasks. If problem appraisal indicates that the client is adapting to tasks well, the counselor acts as a "content" guide to help client better understand his/her vocational identity and the opportunities society offers that identity.

The Measures

In the following discussion, the S-O-R framework for career maturity variables is used to organize the presentation of popular developmental measures. Some scales with similar names measure quite different aspects of career maturity while others with dissimilar names measure highly similar aspects. By classifying instruments according to whether they measure task, intervening, or response variables, the confusion created by the inventory titles is avoided. Only measures for the exploration stage of vocational development are included.

Task variable measures

Task measures assess a client's developmental status. The measures focus on either degree or rate of development. Degree refers to the point along the vocational development task continuum marked by the tasks a client has completed and is encountering. Rate refers to the extent to which a client has dealt with a single task in comparison to a relevant norm group dealing with that same task. Task measures are available for the complete life-cycle, a single stage, or a specified task with a stage.

The Adult Career Concerns Inventory (Super, 1977) is a unidimensional measure of degree of development along the vocational task continuum. The Adult Career Concerns Inventory (ACCI) provides twelve scores, one of each of three tasks in the exploration, establishment, maintenance, and decline stages. For example, the exploration stage scores permit the counselor to judge the client's status relative to crystallizing, specifying, and implementing a career choice. The ACCI is the instrument of choice for screening heterogeneous groups of clients to quickly determine which

vocational development task stimuli they are encountering.

If the counselor already knows the client's general degree of development, a more focused instrument may be used. Some measures assess several tasks within a stage but not a whole stage. The Assessment of Career Decision-Making (Harren, 1978), for example, focuses on tasks encountered by undergraduate college students in the typical age range. The instrument appraises the degree of student progress with respect to three tasks: implementing the choice to attend college, choosing a college major, and specifying a future occupation. Assessment of Career Decision-Making (ACDM) is limited to a particular development period and specific tasks encountered by a homogeneous population. In contrast to the ACCI which offers an extensive analysis of the continuum, the ACDM seeks an intensive analysis of a single stage.

A different approach is represented by the Placement Readiness Scale (Stevens, 1973). It focuses on one task through the different periods of exploration. The Placement Readiness Scale is a 10-dimensional, 5-point scale that an interviewer uses to rate a client's readiness for placement. It is based on Ginzberg's development theory of occupational choice. The scale assesses the development of job-seeking behavior along the continuum of fantasy, tentative, and realistic periods.

Measures that focus on a single task are becoming increasingly popular. These measures limit assessment to a single task, qualitative category of vocational behavior continuum, in order to assess quantitative differences in subjects expected to be encountering that task. Rather than determining the focus of a client's developmental concern, single task inventories hold tasks constant in order to measure differences in degree of development relative to that task. Individual progress is compared to that of a norm group coping with the same task. Single task inventories may be considered measures of degree of development in the sense that the total score indicates whether or not a client has mastered this task. More precisely, however, they measure rate of development.

The best representatives of the rate measures assess the exploration stage task of specifying a career choice. They share a common origin in research on vocational indecision. Difficulty in vocational decision-making and attainment of a vocational identity are opposite poles of decisional status. The scales measure a client's progress, compared to a reference group, toward "possession of a clear and stable picture of one's goals, interests, and talents" (Holland, Gottfredson & Power, 1980, p. 1191).

Three measures of this type are: My Vocational Situation (Holland, Daiger & Power, 1980), Vocational Decision Scale (Jones & Chenery, 1980), and Career Decision Scale (Osipow, Winer, Yanico, and Kachier, 1976). These measures are each factorially complex. Though there are differences among these scales, they generally assess the elements of a client's decision-making difficulties relative to specifying a vocational choice. Each measure assesses both intrapsychic problems and external barriers thwarting vocational decidedness. The total score reflects rate of task mastery while scale of factor scores reveal antecedents of indecision.

Intervening variable measures

Measures of the second class of career maturity variables include scales that appraise intervening variables within the person which are the throughput between stimuli input and behavioral output. They are the most well-known type of career maturity instrument and are much more frequently used than are task and response instruments. These measures can be further classified according to the type of intervening variable they assess. Endler (1983) describes three types of mediating variables: motivation, structure, and content.

Motivation. Motivation scales measure intervening variables concerned with the awareness, direction, and maintenance of relevant coping behavior. Two unifactor motivation scales measure the fundamental career maturity construct of readiness. The Readiness for Career Planning Scale (Gribbons & Lohnes, 1982) is a unitary scale designed to assess the syndrome of eight indices of career maturity. It requires a

structured interview, the results of which are coded according to details described in a scoring manual. The second readiness measure can be scored from the ACCI. Herr, Good, McCloskey & Weitz (1982) describe how summing three of the five response alternatives to each ACCI item results in an index of career concern or readiness to cope with vocational development tasks.

The most popular conative measure is the Career Maturity Inventory Attitude Scale (Crites, 1973). The scale measures attitudes which may mediate choice behaviors. Though it has frequently been used as an index of global career maturity, the Career Maturity Inventory Attitude Scale (CMI-At) measures only an aspect of vocational maturity, namely dispositional response tendencies associated with career decision-making. The CMI-At is available in a 50-item screening form that yields only a total score and in a 75-item counseling form that yields subscale scores for five attitudes toward career decision-making: involvement, orientation, independence, compromise, and decisiveness.

Structure. Structural variables denote cognitive schemes used to organize experiences. Measures of structural intervening career maturity variables assess competencies or cognitive capabilities that are relevant to career decision-making. They are tests, rather than scales or inventories, because their items have correct answers. The Career Maturity Inventory-Competence Test (CMI-CT) measures "comprehension and problem-solving abilities as they pertain to the vocational choice process" (Crites, 1965, p. 7). The CMI-CT has five 20-item subtests which measure five competencies that bear on the decision-making process: self-appraisal, occupational information, goal selection, planning, and problem-solving. The CMI-CT has not attained wide usage because it can require as much as two hours for clients to respond to it. Another structural test is the Cognitive Vocational Maturity Test (Westbrook & Parry-Hill, 1975) which assesses knowledge of occupations. The test has six subscales designed to correspond to typical objectives of occupational information curricula in

career education programs: fields of work, job selection, work conditions, education required, attributes required, and duties.

Content. Content intervening variables denote the material being processed by the mediating system. Content variables include interest, work values, and educational/occupational alternatives. The consistency and realism of career content (e.g., preferred college majors and occupations) being processed by person can index career maturity. Because vocational behavior is to become independent, realistic, and purposeful, the internal consistency of alternatives being considered and the external congruence between the person and the position serve as indicators of career maturity. Indices of consistency and realism are not commonly used because the dimensions are considered late maturing aspects of the exploration stage. Because they are indices, they require that the results of at least two direct measurement operations be combined. The most commonly used index of consistency (Holland, 1979) requires eliciting two or more choices from a client, coding each choice according to Holland's occupational typology, and comparing the relative location of the codes on a hexagon to derive an index of the client's consistency. The most practical index of realism (Crites, 1969, Ch. 7) requires an expressed choice, an ability test score, and results of an interest inventory. The three variables are then combined using Roe's field and level occupational classification scheme.

A seldom used, but viable alternative to indices of consistency and realism, is the Occupational Plans Questionnaire (Hershenson, 1964). Clients write a few sentences describing their occupational choice and then respond to 22 questions concerning that choice. The questions assess degree of occupational fit between self-identity and the chosen occupation. In addition to a total score, six subscores are available: commitment to stated choice, experience relevant to that occupation, consistency of the occupation chosen with abilities, interests, and values, anticipated potential in the occupation, alternative choices, and the place of the occupation in the respondent's life.

An unique instrument, the Career Development Inventory (Super & Thompson, 1979), measures all three types of intervening variables. The Career Development Inventory (CDI) is available in both a high school and a college form. The CDI has five scales. The first two 20-item scales measure motivation variables: how involved students are in career planning and how willing students are to use resources for career planning information and guidance. Two other 20-item scales measure structural variables: ability to apply decision-making principles to solving career choice problems and knowledge of types of occupations and job requirements. The final scale, a 40-item content variable measure, assesses students' knowledge of their currently preferred field of work. The CDI is the most comprehensive measure of intervening career maturity variables because it assesses all three types of this class of variables.

Measures of Response Variables

Intervening variables process environmental demands and opportunities in a way so the person can adequately respond to vocational development tasks. The actual response variables are the reflective and active efforts aimed at coping with the tasks. These behavioral responses seek to restore person-environment equilibration and promote a psychological sense of mastery over one's career.

Measures of response variables share a common origin in the social-learning theory tradition. They focus on antecedent behaviors to actual choice behaviors. The antecedent behaviors that precede choice behaviors are reflective and active behaviors constituting decision-making. They include such behaviors as self-evaluation, values clarification, goal setting, information seeking, generating alternatives, and evaluating alternatives. These ongoing actions are responses to task stimuli and are mediated and structured by the intervening variables.

Two response measures focus on career information-seeking responses. The Vocational Exploration Behavior Checklist (Krumboltz & Thoresen, 1964) elicits

self-reports of information-seeking behavior. Twelve questions (e.g., "writing to request a college pamphlet") produce two scores: frequency and variety of information-seeking behavior. The Vocational Checklist (Aiken & Johnston, 1973) is a 71-item behavioral scale surveying the specific information-seeking responses emitted by the respondent over the preceding three weeks. It yields a score for behavioral or active responses (Sample item: "discussed with my father various choices") and a score for cognitive or thought responses (Sample item: "considered the social status implications of different career choices").

While the above two scales focus on information-seeking behaviors, the Career Exploration Survey (Stumpf, Collareli & Hartman, 1983) is a multidimensional measure of exploratory behavior. It's 62 items assess sixteen dimensions relevant to the psychological dynamics of career exploration. The sixteen scales cluster into three groups. The first group includes seven scales concerned with the exploration process related to career search behaviors (e.g., environment exploration, self-exploration). Three scales cluster into a group focused on reactions to exploration (e.g., exploration stress, satisfaction with information). The six remaining scales are concerned with beliefs about future exploration (e.g., method instrumentality, certainty of exploration outcomes).

Responses to the task of implementing a career choice are assessed by the Assertive Job-Hunting Survey (Becker, 1980). The 25-item questionnaire elicits self-reported job-hunting assertiveness. Sample items are: "hesitate to ask questions when interviewed" and "reluctant to ask for recommendations". Effectiveness of problem-solving behavior relative to course selection and vocational choice can be appraised with the Checklist for Solving Problems in Real Life (Jones & Chenery, 1980). The survey has ten statements to which clients respond by indicating how accurately each statement reflects their typical problem-solving behavior.

Organizing the aspects of career maturity according to the S-O-R paradigm

appears to resolve the confusion encountered by counselors selecting assessment measures based on their titles. Practitioners may use this model to choose measures most germane to client appraisal needs or career education program objectives.

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