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AUTHOR Czerlinsky, Thomas
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ABSTRACT

The project explored the assessment of vocational decision-making capacities of handicapped students within the educational system, specifically the Decision-Making Interview (DMI) instrument. The adaptability, reliability, validity, and utility of the DMI with handicapped secondary students were investigated. Under an instrument adaptation phase and three separate studies, the DMI was modified and then its test-retest reliability and discriminant validity were investigated. A further study investigated the characteritics of the students within these settings, and then determined whether any of these characteristics of the students were related to particular strengths or weaknesses in DMI scores. The results suggested that the DMI is an appropriate instrument for use with special education students. The instrument was reliable in term of correlations between test and retest, utilizing intervals ranging from 2 weeks to 1 full school year. Furthermore, the DMI clearly distinguished between handicapped and non-handicapped special education students, and demonstrated that non-handicapped students scored significantly higher on the DMI scales than handicapped students. A second study demonstrated the criterion-related validity. Significant consistent correlations were found between scores on the DMI and parallel but independent judgements of student on the same dimensions of the DMI provided by evaluators working with the students. Lastly, a study identified a number of salient personal and demographic characteristics of the students significantly correlated with high or low scores on the vocational decision-making dimensions. The appendixes provide the Vocational Decision-Making Interview form and the Evaluator/Counselor form. (Author/CL)

RESEARCH & TRAINING CENTER

University of Wisconsin - Stout
Menomonie, Wisconsin

THE ASSESSMENT OF VOCATIONAL DECISION-MAKING PROBLEMS OF HANDICAPPED STUDENTS WITH THE VOCATIONAL DECISION-MAKING INTERVIEW

Final Project Report

Thomas Czerlinsky, Ph.D.
Research and Training Center
University of Wisconsin-Stout
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Abstract

This project was concerned with the assessment of vocational decision-making capacities of handicapped students within our educational system. Heretofore there were no adequately valid and reliable instruments available in the special education literature for this purpose and this special population. A promising instrument for measuring the vocational decision-making problems of adult handicapped persons has been developed and researched within the field of vocational rehabilitation. The structure and content (to be seen in Appendix A) and the initial findings with this new vocational Decision-Making Interview (DMI) have suggested that the DMI may be validly utilized in secondary school settings to assess and profile the vocational decision-making strengths and weaknesses of handicapped high school students.

The present project addressed this issue, and investigated the adaptability, reliability, validity, and utility of the DMI to the field of special education with the above mentioned population. Under an instrument adaptation phase and three separate studies, the DMI was modified and then its test-retest reliability and discriminant validity were investigated. In addition, a further study investigated the characteristics of the students within these settings, and then determined whether any of these characteristics of the students were related to particular strengths or weaknesses in DMI scores.

The results of this project strongly suggested that the DMI is an appropriate instrument for use with special education students. The instrument was found to be very reliable in terms of the correlations between test and retest, utilizing intervals ranging from two weeks to one full school year. Furthermore, the DMI clearly distinguished between handicapped and non-handicapped special education students, and demonstrated that non-handicapped students scored significantly higher on the DMI scales than handicapped students. A second study demonstrated that the criterion-related validity for the DMI. Significant consistent correlations were found between scores on the DMI and parallel but independent judgements of student on the same dimension of the DMI provided by evaluators working with the students. Lastly, a study identified a number of salient characteristics of the students located within the special education sites utilized, and demonstrated that there were several personal and demographic characteristics which were significantly correlated with high or low scores on the vocational decision-making dimensions.

Overall, this project demonstrated that the DMI, developed within rehabilitation for handicapped adults, has satisfactory reliability and validity when utilized within special education settings, and that the instrument seems to offer an effective and efficient means for determining specific strengths and deficits of handicapped students in various areas of vocational decision-making. It is hoped that these results will encourage professionals within special education settings, who are

concerned with the process of vocational decision-making of their students, to utilize the DMI in their work with their students.

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I. Introduction

Most handicapped students in secondary schools are eventually confronted with a major decision. They must identify vocational goals and make vocational decisions which are appropriate to them. In this regard, handicapped students are not very different from their non-handicapped counterparts who also must make such decisions. However, there are also great differences. Because of the limitations placed upon them by their disabilities, handicapped students may be expected to be under more pressures to make vocational decisions and choices which are seen to be "realistic", and also they may be faced with unique problems of vocational decision-making which must be taken into account by the students and also by the professionals charged with helping them prepare academically and vocationally in the school setting.

Like non-handicapped students, handicapped students can be expected to vary in the amounts and types of problems they face in making vocational decisions. At one end of the continuum may be individuals who have made a vocational decision with which they are satisfied and which they know how to implement. However, at the other end of the continuum may be individuals with the so-called "indecisive personality" (Holland & Holland, 1977), who are lacking the necessary skills to go about acquiring

information, making a vocational decision, and/or implementing that decision.

The topic of vocational indecision is germane to all individuals, and not only to handicapped students (as pointed out previously). Research has been conducted over a wide range of issues relevant to vocational decision-making. These include the effects of anxiety and emotions in general upon vocational decisions (Hawkins et. al., 1977; Toda, 1980); what effect the trait of risk-taking has on vocational decision-making (Davidshofer, 1976); and how self-concept is related to vocational maturity and vocational choices (Lunnenborg, 1976; Barret & Tinsley, 1977; Ware & Pogge, 1980). Other studies have also investigated, over time, the stability and classification of vocational interests (Hansen & Stocco, 1980; Harmon & Zytowski, 1980), and the strategies which individuals use to avoid making vocational decisions (Rosenberg, 1977). The effects of sex differences and various perspectives on vocational decisions have also been studies (Tinsley & Faunce, 1978; Harren et. al., 1979; Harren & Biscardi, 1980; Yuen et. al., 1980; Tinsley & Faunce, 1980), as well as other inter- and intra-personal factors related to vocational indecisions (Holland et. al., 1975; Osipow et. al., 1976; Holland & Holland, 1977; O'Neil et. al., 1980; Reilly & Caldwell, 1980; Jones & Chenery, 1980). From a somewhat different perspective, a number of different studies have explored the effects of various counseling techniques on career indecision (Mendonca & Siess, 1976; Krivatsky & Magoon, 1976;

Rubington, 1980), while others attempted to develop outcome criteria to measure the effects of such counseling (Thompson & Wise, 1976).

More abstract aspects of vocational decision-making and human decision-making in general have also been investigated (Mostelle & Nogee, 1954; Edwards, 1954; Savage, 1954; Luce & Raiffa, 1957; Coombs, 1964; Edwards & Eversly, 1967; Keeney & Raiffa, 1976; Eshragh, 1980; Herriot et. al., 1980; Pita & Harren, 1980).

As this sampling of the literature demonstrates, a considerable amount of research has been conducted in the area of decision-making in general and vocational decision-making specifically. However, very little of this literature addressed the handicapped students at all, or other "special populations". It has been clearly stated (Thoresen & Ewart, 1976) that most research dealing with vocational indecision has considered only "normal" high school and college populations. The authors recommend strongly that future research in this area should take into account a wider range of individuals. Thus, very little research has dealt with the vocational decision-making problems of special populations and specifically of handicapped individuals. One major reason for this lack of research in this area seems clear. Reviews of the research and literature in special education, regular education, rehabilitation, and psychology do not yield any reliable or valid instruments which are particular suitable for handicapped students to identify and

classify their vocational decision-making problems. Thus, little can be known about this group's vocational indecisions and about possible remediation or treatment strategies directed toward their common as well as unique problems.

A tool which would allow assessment and identification of handicapped students' vocational decision-making problems would be a valuable aid to many schools. It would be particularly important at the high school level, where many students are at a point of transition by making vocational choices and decisions about entry into the world of work, or about further education to prepare them for this transition. It is particularly at this point that the identification of problems in this realm would be important in order to remedy such problems and to help students overcome the barriers to entering the vocational world which vocational decision-making problems present. Such a tool would be an aid in planning prevocational, academic, and skill training programs with this group, and would play a role in the development of the student's individualized education plan (IEP). Such a tool would also be very important to school systems which are currently introducing vocational evaluation, vocational adjustment, and skill training courses for special student populations.

Change in capacity to make vocational decisions has been shown in vocational rehabilitation clients (Czerlinsky & Coker, 1980). The authors demonstrated that vocational evaluators judge handicapped individuals to have made more and more realistic

vocational decisions at the end of vocational evaluation than at the beginning. Thus, it appears that vocational decision-making capacity is amenable to change as a result of interventions designed to improve that capacity. What was clearly needed, however, was a means to effectively and efficiently measure those capacities in various handicapped individuals.

An initial exploratory study (Strohmer, 1979; Czerlinsky et. al., 1982) investigated the problems that high school students and rehabilitation clients evidenced, examined the range of vocational decision-making skills they used, and developed a tool to measure these skills and abilities. This instrument was called the vocational Decision-Making Interview (DMI). Using item analysis procedures, a pool of eighty items related to vocational decision-making was developed. These items comprised the initial DMI. The DMI items were reality oriented toward the realistic day-to-day problems experienced by handicapped individuals in the realm of vocational decision-making. The DMI has three subscales - Employment Readiness, Self Appraisal, and Decision-Making Readiness. A total score is also derived. Each item of each subscale requires subjects to respond with either categorical responses (True, Not Sure, or False) and/or with answers to open-ended questions (which appear clinically useful). In the initial study, the DMI was administered to three groups of thirty individuals -- vocationally undecided rehabilitation clients (beginning vocational evaluation), vocationally decided rehabilitation clients (receiving vocational

training for their vocational choices), and a mixed group of high school students. Reliability was assessed with measures of internal consistency, and discriminant validity was assessed with analyses of variance utilizing these three criterion groups.

Reliability tests showed that each of the DMI subscales was adequately internally consistent, and also that each scale seemed to tapping somewhat unique areas or domains.

Discriminant validity was demonstrated in that the DMI significantly distinguished or discriminated between undecided clients and decided clients (as defined above). High school students fell at an intermediate level, between the decided and undecided clients. These patterns were found on all three subscales, as well as on DMI total score.

Discriminant function analyses were conducted to identify poorly discriminating items, which were dropped. Reanalyses with the shortened sixty-item DMI showed further improvement on all three subscales and DMI total.

In a later study within a vocational rehabilitation setting (Czerlinsky, Jensen, and Pell, submitted), the authors demonstrated that scores on the DMI were remarkably stable over the course of one week, in a test-retest design. Pre-post correlations in this study were in the range of .60s to .80s. Secondly, correlated t comparisons showed that the DMI was significantly sensitive to treatment effects of a one week vocational evaluation. Post-evaluation scores were significantly

elevated over pre-evaluation scores, and this pattern held up for all three DMI subscales and total score.

The results of these studies were quite promising. They indicated that the DMI may have great utility within rehabilitation in determining client vocational problems and needs, to help alleviate these problems and most efficiently meet the needs of these individuals.

The research mentioned above also suggested that the DMI may have utility for determining the vocational decision-making strengths and deficits of handicapped students within our educational systems. A well defined and definitive study was clearly called for, though, before the DMI could be adopted and used with handicapped students in secondary schools. The present series of studies was designed to address this issue.

The present project was a further step in the development and reliability and validity establishment of the DMI. It was conducted within a variety of special education settings, and subjects were students within these settings. Thus, this project directly addressed whether the DMI has potential for use in special education settings.

Three distinct studies were carried out, each of which addressed a different aspect of the DMI. The first study was a test-retest investigation of the stability of the DMI within a special education setting. Test retest intervals ranged from two weeks to a full school year. And subjects were classified as either cognitively handicapped, physically handicapped, and

non-handicapped. The thrust of this study was to determine the reliability of the DMI over widely varying test-retest intervals, and across distinctly different types of handicapped students.

The second study was concerned with the criterion-related validity of the DMI. To address this issue, an instrument was developed which was designed to be filled out by the counselor or evaluator who knows the student best. This instrument -- the Evaluator/Counselor Form (E/C) -- was much shorter than the DMI, but it was parallel to it. Thus, it served as a criterion reference for the validity of the DMI. In this study, students completed the DMI, and then evaluators or counselors working closely with each of the students completed the E/C, blind to student self-ratings on the DMI. Analyses were primarily correlational. The focus was on examining whether the self-rated DMI subscales were significantly correlated with the criterion ratings completed by the professionals working with the students.

The third study investigated whether vocational decision-making scores can be shown to be related to demographic, maturational, or personal variables. Students completed the DMI instrument, and data relating to the above three domains was collected.

These three studies together, then, investigated, within special education settings: 1) the DMI's test-retest reliability over widely varying intervals of time; 2) the DMI's criterion validity with experts' judgements as the validity criterion; and 3) characteristics of students with various patterns of DMI

scores. These areas were considered crucial if the DMI is to have utility and acceptance within the field of special education. The overall goal of this series of studies was to provide a tool to the field of education which would fill the void which now exists in assessment of handicapped students vocational decision-making capacity. The DMI may be particularly useful for professionals from education who work with handicapped students, it should aid in the development of the vocational and pre-vocational part of the IEP, and it should benefit handicapped students on an individual level in providing necessary data upon which schooling can be geared toward their acquisition of needed vocational, as well as academic, skills.

II. Objectives

This project was concerned with determining the utility of the newly developed vocational Decision-Making Interview (DMI) for educational settings which serve various types of handicapped students, as well as non-handicapped students, and with gathering information about such students' vocational indecisions. The overall purpose of this project was to investigate whether the DMI, which has shown much promise within the field of vocational rehabilitation, would be appropriate and useful for this different population of handicapped students. If this could be demonstrated, then the DMI might be effectively used by education personnel, such as guidance counselors, special education teachers, and school psychologists as they work with handicapped students in secondary school settings, and as they establish educational programs and experiences which help reduce the negative impacts which the disabilities place on the students' educational, vocational, and social futures.

The specific objectives which this project addressed were the following:

1. To determine the test-retest reliability of the DMI, over different groups of students, and over time intervals between test and retest ranging from two

weeks to a full school year. This was addressed by Study 1.

2. To determine the criterion validity of the DMI, utilizing experts' judgements as the criteria. This was addressed by Study 2.

3. To establish the maturational and other demographic characteristics of the students with various patterns of DMI scores,and to determine whether any particular characteristics seem to be correlated with strengths or deficits on any of the DMI dimensions.

III. Method -- Overview

This project was conducted over the course of a two-year time period. It was comprised of four stages. The first stage was concerned with "debugging" the DMI to make sure that it would be appropriate for the new settings and populations of concern to this project. The three studies were then conducted. Each stage will be fully described in the sections to follow.

The Instrument Adaptation Stage was concerned with piloting and adapting the DMI (Appendix A), and developing and refining the Evaluator/Counselor (E/C) Form which was to serve as the validity criterion form in Study 2, to make both of these instruments appropriate to the educational settings in which they were to be utilized. These adapted instruments were critical indicants for Studies 1, 2, and 3.

Study 1 was a test-retest reliability study among a variety of handicapped students in secondary school settings, using test-retest time intervals which ranged from a two-week period to an entire school year. This study addressed the reliability of the DMI, which was Objective 1 (above).

Study 2 was concerned with determining the criterion related validity of the DMI, which was Objective 2. DMI scores from a large cross-section of handicapped students who were receiving vocational evaluations were compared to the ratings of these

students made by the vocational evaluators working most closely with the students on the same dimensions of vocational decision-making capacity. The Evaluator/Counselor (E/C) Form provided this validity data.

Study 3 addressed Objective 3. The DMI was administered to samples of handicapped students in various educational settings to determine maturational and other demographic characteristics that appeared to characterize students providing various types of DMI data, and analyses were also conducted to establish whether any particular of these characteristics were correlated with, or were predictors of, any particular strengths or deficits in vocational decision-making, as assessed by the DMI. The overall aim of this study was to gather baseline data about the vocational decision-making skills and capacities of handicapped students. Such data should ultimately be useful for developing specific treatment strategies for overcoming barriers to education or employment that vocational decision-making deficits present.

The Instrument Adaptation Stage and Studies 1, 2, and 3 are fully detailed below.

IV. Method -- Instrument Adaptation Phase

The purpose of this initial stage of the research was to take an instrument already developed for a somewhat different population (vocational rehabilitation clients) and adapt it to make it appropriate for this different population. Secondly, the criterion validity form, the Evaluator/Counselor (E/C) Form, had to be fully developed and also adapted to the population of interest in this study.

Instruments.

There were two specific instruments which were adapted or further developed.

1. Vocational Decision-Making Interview (DMI). This instrument has been described previously, and is displayed in Appendix A. This is an eighty item interview format questionnaire, which is individually administered. It has three subscales (Employment Readiness, Self-Appraisal, Decision-Making Readiness, and a Total score) for which it yields separate scores. It was designed to tap the very real day-to-day problems in vocational decision-making faced by handicapped individuals. It had, prior to the present project, been experimentally used in vocational rehabilitation settings with handicapped adults, as

well as with non-handicapped students, and, as described previously, it has been very promising in these studies.

2. The Evaluator/Counselor (E/C) Form. The E/C Form (Appendix B) is a shortened, parallel version of the DMI, and it was designed to provide a validity criterion for the DMI. The E/C Form was intended to be completed by the professionals working with the individuals, who presumably have the most intimate knowledge of the individual's vocational decision-making skills and deficits. This person may be the school psychologist, school counselor, special education teacher, or vocational evaluator. The E/C Form thus yields independent judgements of student vocational decision-making capacity.

Procedure. As mentioned, at the initiation of this Stage, the DMI had already been developed, and the E/C Form was in an early stage of development from a previous study. Thus, the focus was on adapting the DMI to make it maximally relevant to the special education population serving as subjects, while the focus, for the E/C Form, was first on developing the form further, and then on making it relevant to special education populations.

To accomplish these goals, professionals within the special education settings serving as research sites were enlisted to pilot both of the forms. It was made clear to them that the

purpose of the piloting was to revise and improve the forms, and therefore they were to be extremely alert to items which were unclear to them and/or to the students, and to items which were not relevant to the student population being utilized.

On the DMI, the major criticism of the original form was that it contained wordings and phrasings which were beyond the reading level of some of the students which were to be used as subjects. A second criticism which was encountered (much less frequently) was that the instrument was too long for the attention span of some of the students (it contains eighty items) and thus it would take too long to administer.

The first criticism led to two actions. First of all, a careful review of the DMI did indicate certain places at which rewording simplified the grammatical structure of the instrument. The second action, however, indicated that the initial instructions to the professionals may have been somewhat unclear. They objected to some of the wording on the basis of their being at too high a reading level, and assumed that subjects were to sit down and read the instrument and then complete it, like other pencil-and-paper tests. However, once it was made clear that they were to read the items to subjects, and that the DMI was an interview which not only allowed, but indeed encouraged, explanations and rephrasings, this criticism rapidly disappeared.

This latter explanation also addressed the second criticism -- that the DMI exceeded the attention span of many of the

students. Once it was explained that the student was not expected to read the instrument him/herself, and that further the eighty item DMI, when read to rehabilitation clients, took between a half an hour to an hour, this criticism also diminished. This was particularly the case after the professionals actually tried administering the DMI to several students.

Little criticism was found for the E/C Form. Staff found it relatively quick to administer, and were usually finished with the instrument within a ten to fifteen minute period. One section of this form which did cause some concern for the professionals critiquing it was the section which addressed the percents of time which a student spent at various activities. It was felt that this could not be completed accurately, since many of the students participated in many different programs, and did so over (sometimes) a long period of time. This section was appropriate in a certain type of rehabilitation setting, where a client was intensively a participant for a short period of time. However, for the students, this did not make sense. Therefore, a decision was made to drop this section from the data collection protocol of Study 2.

Therefore, this initial Instrument Adaptation Phase did suggest some improvements for utilizing the DMI in special education settings. These were incorporated. However, on the whole, the DMI remained relatively intact, and the major

difference in using the DMI with this population appeared to be in being sensitive to items or phrasings which exceed the comprehension level of the subjects, and then rewording these to make them appropriate and understandable. Once these precautions were followed, Studies 1-3 showed that the DMI did not offer much difficulty to either the administrator of the interview, or to the special education student taking the instrument.

These minor changes discussed above were incorporated into the instruments or into the instructions to the DMI data collectors, and Studies 1, 2, and 3 were conducted.

V. Method -- Study 1

As summarized above, the specific purpose of Study 1 was to determine, first of all, the rest-retest reliability of the DMI over time intervals ranging from several weeks to a full school year. Secondly, the study also considered variations in patterns of DMI scores between cognitively handicapped students, physically handicapped students, and non-handicapped students.

Design. There were two independent variables specifically considered in this study. The first was the time interval between the first and second administration of the DMI. Four time intervals were used -- two weeks, two months, one semester, and one full school year. The second independent variable was disability type, subdivided into the three broad categories of cognitively handicapped, physically handicapped, and non-handicapped.

Subjects. The subjects for this study were 180 students in a secondary special education setting. Seventy-three of these students were cognitively handicapped, thirty-one were physically handicapped, and seventy-six were not considered to be handicapped. The reason for the paucity of physically handicapped students within this setting was that it became immediately apparent that there were very few physically handicapped students to be found within typical special education

settings. Therefore, a concerted effort was made to locate, as subjects, physically handicapped students, but this effort resulted in only about half the percentage of physically handicapped students as was the case for the other two groups. It should be kept in mind, therefore, that the percentages of physically versus cognitively handicapped students in Study One are not the same as found in the field, in that while in the present sample of handicapped students, the percentage who were physically handicapped was 29.8%, against the remaining 70.2% who were cognitively handicapped, in the field the percentage of physically handicapped students found within special education settings is considerably lower.

Instrument. The instrument utilized in this study was the vocational Decision-Making Interview (DMI). It has been described previously, and can also be seen in Appendix A. Also collected on each subject were certain individual characteristics, including type of disability (if appropriate), age, sex, grade level, and program.

Procedures. The first step in conducting this study was the selection of one or more sites suitable for data collection purposes. After reviewing the potential sites available for conducting this project, it was decided to use one vocational technical school in White Bear Lake, Minnesota -- 916 VoTech. There were several reasons why this site seemed suitable. For one thing, it offered a large number and variety of special education students. Secondly, it served an adequate number of

comparable but non-handicapped students, as required by the design. Thirdly, it was in one location, which meant that one research technician from the area could handle the data collection, rather than needing several research assistants, or having one spend an inordinate amount of time in travel. Thirdly, and importantly, the professional staff at that facility, in particular the staff of the Serve Center of WB916, were very cooperative in participating with us in this research project, and were very helpful in enabling the research technician to get access to many students from other programs within WB916.

A research technician was hired, who lived in the area of White Bear Lake, Minnesota. This person first spent a suitable period of time at the Research and Training Center to thoroughly learn about the requirements of the research and to become proficient in the administration of the DMI.

Numerous planning sessions were held at WB916 between the principal investigator, the research technician, and the professional staff. At these sessions, the details of conducting the study were carefully reviewed, and everyone involved with various aspects of the study was apprised of the study as a whole, as well as of everyone's specific role within the study.

The research technician then set up an office at WB916, and began piloting the procedures. The pilot phase highlighted a number of potential difficulties with the procedures. These were eliminated.

Data collection was then initiated. This basically involved contacting potential subjects within WB916 to elicit their willingness to participate, and then to obtain their consent. Once this was completed, and depending upon the disability classification of the student (cognitively handicapped, physically handicapped, or non-handicapped), subjects were assigned to a cell of the design, which can be seen in Figure 1.

Figure 1
Experimental Design of Study 1

	Test-Retest Interval				
Subject Type	Two Weeks	Two Months	One Semester	One School Year	
Learning Disabled					
Physically Disabled					
Non-Handicapped					
					180

Subjects were assigned to one of the four test-retest intervals, as shown in Figure 1. The cells were filled in a specific order of test-retest duration, with the longer durations being pre-tested first. This was to insure that a true school year, as well as semester, would be available at the retest time. To account for some expected subject dropout at the retest session, particularly on the long test-retest intervals, approximately 10% more subjects than planned for were tested.

This resulted in a final subject size with complete test and retest data of 180 students, as specified in the design.

Subjects who agreed to participate, were tested with the initial DMI, and selected personal data was collected. Then, at the retest time, they were again tested with the DMI. For a goodly number of the subjects (particularly in the long test-retest intervals), the DMI retest was conducted at a different location than WB916, since they often had left that school by the time of the retest. The research technician would contact the subject, arrange for a time and place suitable for the subject (often at a different school) and then collect the retest data.

Results. The data was analyzed to address a number of questions. The first set of analyses was concerned with the test-retest correlations of the DMI subscores and Total score across all test-retest time intervals and across subject disability types. These correlations are shown in Table 1.

Table 1
Test-retest correlations for DMI scores
across test-retest intervals and across subjects

Scale	Correlation	Significance
Employment Readiness (n=180)	.60	p.<.01
Self-Appraisal (n=180)	.70	p.<.01
Decision-Making Readiness (n=180)	.74	p.<.01
DMI Total (n=180)	.79	p.<.01

As shown in Table 1, test-retest correlations for all DMI subscores and the Total score were highly significantly correlated, which included test-retest intervals ranging from two weeks to one school year. This reflects a high degree of stability, or test-retest reliability, for this instrument.

Analyses were then conducted to study the effects which length of test-retest interval had on the stability of test-retest scores. That is, do the test-retest correlations evidence major drops as the intervals between testings increase? This was accomplished by conducting separate correlational analyses for each of the four different test-retest interval groups of subjects. The results of these analyses are shown in Table 2.

Table 2

Test-retest correlations of DMI subscores for different test-retest intervals across subject types

	Test-Retest Intervals			
Scale	2 Weeks	2 Months	1 Semester	1 School Year
Employ. Read.	.55(p.<.01)	.63(p.<.01)	.57(p.<.01)	.62(p.<.01)
Self-Apprais.	.80(p.<.01)	.58(p.<.01)	.73(p.<.01)	.68(p.<.01)
D-M. Read.	.84(p.<.01)	.71(p.<.01)	.77(p.<.01)	.64(p.<.01)
DMI Total	.87(p.<.01)	.72(p.<.01)	.79(p.<.01)	.74(p.<.01)
	n=40	n=42	n=52	n=46

As Table 2 clearly shows, test-retest correlations for the DMI subscores and total score were highly stable over intervals ranging from two weeks to a full school year. The lowest correlation obtained was .55, while the highest was .87. All correlations were clearly significant.

The patterns of correlations were interesting. Consistent with Table 1, the above correlations indicate that while all subscales obtained significant correlations, the magnitude of the correlations for Decision-Making Readiness and for the Total DMI were clearly the highest. Employment Readiness seemed to be the least stable of the DMI subscales.

Certain of the correlations also stand out as not fitting the patterns totally. For example, for Self-Appraisal, the two-months test-retest correlation was lower (.58) than the corresponding correlations for the two longer test-retest intervals (.73 and .68, respectively). These types of minor inconsistencies are probably due to 1) random error, and 2) the fact that each test-retest interval was composed of different subjects.

The next several sets of analyses were directed at discerning whether and how the three disability categories (cognitively handicapped, physically handicapped, and non-handicapped) related to stability of DMI scores over time. The results on Table 1 showed that, across various test-retest intervals for all of the DMI subscales as well as for the DMI

Total score, the correlations between the two DMI administrations were significantly correlated. Table 3 shows these same correlations, but after dividing the total sample into students who were cognitively handicapped (n=73), physically handicapped (n=31), and non-handicapped students (n=76). The smaller size of the physically handicapped group was due (as previously pointed out) to the small numbers of physically handicapped students within the school. The topic being addressed by these analyses was whether the stability, or reliability, of the DMI held for all three groups, or whether the instrument was not reliable for one of these groups.

Table 3

Test-retest correlations for the DMI subscales broken down by disability type (Cognitive, Physical, and Non-handicapped)

	Disability Types					
	Cognitive		Physical		Non-Handicapped	
DMI Subscales	Corr	p.	Corr	p.	Corr	p.
Employment Readiness	.49	<.001	.54	<.005	.63	<.001
Self Appraisal	.65	<.001	.63	<.001	.71	<.001
Decision-Making Read.	.72	<.001	.65	<.001	.72	<.001
DMI Total	.75	<.001	.72	<.001	.77	<.001
	(n=73)		(n=31)		(n=76)	

These patterns of correlations showed that the subscales of the DMI, as well as the total score of this instrument, was highly reliable for both disability groups as well as for non-handicapped students. Again, the Employment Readiness subscale had somewhat lower correlations than the others, but in general the results of this analysis seems very positive for the instrument over a range of different types of students.

A correlation grid was established which included the different subscales, two different types of student groups (cognitively handicapped and non-handicapped), and the four test-retest intervals. Because of the small numbers of physically handicapped students in some of the cells, the physically handicapped student group is not included in this grid. Table 4 shows the patterns of correlations which were obtained.

This Table shows several patterns. First of all, the Self-Appraisal, Decision-Making Readiness, and DMI Total scores showed consistent and significant patterns of correlations across all four test-retest intervals, and for both cognitively handicapped and non-handicapped students. Secondly, stability, or reliability, of the Employment Readiness scale was more equivocal. In particular, the two weakest and the only non-significant correlations in this Table were in the two week and one semester test-retest intervals for the cognitively handicapped students. Apparently the least reliable subscale of

the DMI was the Employment Readiness scale used with cognitively handicapped students.

Table 4

Test-retest correlations for the DMI subscales by two disability groupings (cognitively handicapped and non-handicapped) and by test-retest intervals

		Test-Retest Intervals							
		2 Weeks		2 Months		1 Semester		1 School year	
DMI Subscales		Cog	Non	Cog	Non	Cog	Non	Cog	Non
Employment Readiness	r	.33	.61	.64	.70	.27	.56	.52	.69
	p	=.15	<.005	<.01	<.001	ns	=.01	<.05	<.005
Self-Appraisal	r	.67	.86	.62	.57	.66	.73	.68	.69
	p	<.001	<.001	<.01	<.01	<.01	<.001	<.005	<.001
Dec.-Mak. Readiness	r	.83	.81	.68	.69	.81	.68	.64	.69
	p	<.001	<.001	<.01	<.001	<.001	<.001	<.005	<.005
DMI Total	r	.79	.89	.74	.66	.75	.74	.79	.75
	p	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
		n=20	n=20	n=17	n=20	n=18	n=20	n=18	n=16

The analyses to this point have addressed the stability or reliability of the DMI over various types of students and over various time intervals. An additional set of analyses was conducted to address whether there were differences in actual DMI scores between students who were cognitively handicapped, students who were physically handicapped, and non-handicapped students. Inspection of DMI means shows that there were very

little differences, across student disability types, between DMI Test 1 scores and DMI Test 2 scores. The actual means are shown in Table 5.

Table 5
DMI means for Test 1 and Test 2
across student types and across test-retest intervals

	Means	
DMI scales	DMI1	DMI2
Employment Readiness	12.42	12.35
Self-Appraisal	16.21	16.86
Decision-Making Readiness	17.66	17.82
DMI Total	46.29	47.02

These means demonstrate that actual average scores for these 180 subjects remained virtually unchanged between the two DMI administrations (There were no significant or nearly significant differences between any DMI1 means and their corresponding DMI2 means). When viewed together with the correlational analyses above, these results indicate that DMI scores remained stable in this test-retest design not only in a relative sense, but also in an absolute sense.

The next set of analyses addressed whether there were any differences between the three groups of subjects (cognitively handicapped, physically handicapped, and non-handicapped students) in their absolute levels of DMI scores. That is, does one group, for example, evidence measurably lower scores on one

or more DMI scores than another group? Despi'e the evidence of extreme stability of scores over time, both DMI1 and DMI2 scores were utilized in separate analyses. The actual analyses were one-way analyses of variance, with the independent variable being disability type (3 levels; cognitively handicapped, physically handicapped, or non-handicapped), and the dependent variables being DMI scores. Eight such analyses were conducted, and the results are shown on Table 6.

Table 6 shows very clear patterns. First of all, it has already been demonstrated above that the means of the second DMI administration were virtually identical to those of the first DMI administration. Thus, to have made very much of the analyses of variance of the second DMI administration would have been redundant. Therefore, the focus was on the analyses of the first DMI administered. Table 6 showed that the cognitively handicapped students and the physically handicapped students displayed very similar means, but that these were quite different from the corresponding means for the non-handicapped students. All of the F tests were significant at p.<.001. Post-hoc analyses were conducted for each of these DMI 1 means, comparing the three student groups to each other. These were t-test comparisons, using a conservative p.<.01 level as the criterion for significant differences. All four sets of post-hoc comparisons showed the same patterns. On each of the DMI 1 subscales and DMI 1 Total score, the means of the cognitively

Table 6

One-way analyses of variance on DMI scores
by disability groups

PRE-SCORE ANALYSES

DMI Scores	MEANS: Cognitively Handicapped (n=73)	Physically Handicapped (n=31)	Non Handicapped (n=76)	F	df	p
Employment Readiness 1	11.7	11.4	13.5	11.2	2,177	<.001
Self Appraisal 1	15.3	14.6	17.7	10.3	2,177	<.001
Dec.-Making Readiness 1	16.0	17.1	19.5	11.6	2,177	<.001
DMI Total 1	43.0	43.1	50.7	14.8	2,177	<.001

POST-SCORE ANALYSES

Employment Readiness 2	11.7	11.1	13.5	10.9	2,177	<.001
Self Appraisal 2	16.3	14.2	18.5	11.2	2,177	<.001
Dec.-Making Readiness 2	16.1	16.5	20.0	12.0	2,177	<.001
DMI Total 2	44.0	41.8	52.0	14.4	2,177	<.001

handicapped students were not different from the means of the physically handicapped students, but the means of the non-handicapped students were always significantly higher than the corresponding means of the other two groups.

Thus, these analyses indicated that handicapped students in general seemed to evidence lower DMI means than non-handicapped students, but there were no significant differences in the corresponding means of cognitively handicapped vs. physically handicapped students.

VI. Method -- Study 2

The purpose of Study 2 was to investigate the criterion-related validity of the DMI, as detailed under Objective 2. To accomplish this, two sets of indicants were needed. One was self-rating of vocational decision-making capacities, as measured by the DMI. The second was to obtain ratings of the students on the Evaluator/Counselor (E/C) Form by professionals who would know the students best on the same dimensions as tapped by the DMI. The service professional chosen as having the most intimate knowledge in this realm was the vocational evaluator. Evaluators obtain extensive information about individuals in the realm of vocational decision-making, and thus these service professionals should be in the best position to judge individual students in this realm. These independent judgements by vocational evaluators would have to be made blind to DMI self ratings, so as not to contaminate the results. In addition, they would have to be made at a point in time at which the professional evaluator has known the student for a sufficient amount of time to be able to make such judgements with considerable confidence. If significant correspondence between self-ratings and ratings by professionals (on the same dimensions) could be demonstrated, then evidence for one kind of validity -- criterion related validity -- would be established.

Design. To evaluate the criterion validity of the DMI, a correlationally based design was established. There were two basic sets of analyses which were conducted. The basic design was to determine the correlations between the self-rated DMI subscales and the corresponding domains from the E/C Form. Secondly, the E/C Form also contained a single five-point rating scale for evaluating student vocational decidedness (the scale is fully detailed under the Instruments section below.) This scale was also correlated with each of the self-rated DMI subscales. Thus, the basic design consisted of correlating two sets of ratings, one from the point of view of the individual student and the other from the point of view of the evaluator working closely with the student. The ratings of the students by the evaluators working closely with the students were considered for this Study to be the criteria of validity for the DMI, and if significant DMI X E/C Form correlations could be demonstrated, this would provide one form of evidence for the criterion related validity of the DMI.

Subjects. The subjects for this Study were sixty-three special education students at one of two sites. One site, which provided forty-one subjects, was a special education program located within a high school. The other site was a facility, affiliated with a university, which served a number of handicapped students referred by educational institutions. This latter site supplied twenty-two subjects. Subjects from both of these sites were pooled for a total sample of 63.

The disability distributions of these subjects were:

Developmentally Handicapped	25%
Learning Disabled	68%
Orthopedically Handicapped	2%
Hearing Handicapped	2%
Visually Handicapped	2%
Speech Handicapped	2%

As the above percentages clearly indicate, there were very few subjects in this sample which would fall into the category of physically handicapped. In Study 1, extensive efforts were made to locate physically handicapped students so that there would be sufficient numbers of such students within this category to enable valid comparisons between cognitively handicapped students and physically handicapped students. In this study, due to the few physically handicapped students, disability type (e.g., cognitively handicapped versus physically handicapped students) was not included as a factor for analysis. However, compared to Study 1, the disability distributions in Study 2 are probably more true to actual disability distributions found within special education settings,

Instruments. Two instruments were utilized in Study 2. One of these, the DMI, has been adequately described previously, and can be seen in Appendix A.

The second instrument was the Evaluator/Counselor (E/C) Form. This instrument has also been described earlier, and it is included as Appendix B. The E/C Form was the criterion utilized

for the validity analyses. The E/C Form contained two parts which were utilized. It contained twenty items, each one of which tapped several DMI items, but from the point of view of the vocational evaluator. Thus, five E/C items summed to make the Employment Readiness Scale, eight E/C items made up the Self-Appraisal Scale, and seven items made up the Decision-Making Readiness Scale. Total score was the sum of these three subscales. These scales served as correlates of the self-rated DMI scales for one set of validity analyses.

The E/C Form also contained another scale which served as a different validity criterion. This was a five-point rating scale on which the evaluator rated the student on a continuum ranging from "Non-commitment" to "Plan of Action". This scale was designed to measure the evaluator's perception of the student's current level in terms of vocational decision-making. It was used as a validity criterion for all three of the DMI scales and Total score.

Also collected on each student was information about age, sex, disability, and grade level.

Procedures. Research arrangements at each of the two sites of this Study involved, first of all, carefully discussing the procedures with the staff at each site. It was made clear that the involvement of the school staff was definitely limited to completing the E/C Form, and allowing students to participate in the Study.

Once school staff was satisfied with the procedures, and with their involvement in them, a research technician arranged for a suitable testing site. Then data collection began. Subjects who agreed to participate were individually administered the DMI, and some basic demographic data was collected about each subject. Within several days after each subject was tested, the vocational evaluator or counselor working with each subject was given toe E/C Form to complete. Professional school staff were blind to student DMI results when completing the E/C form. Only subjects with whom the evaluator (or counselor) had worked for some time were included in the sample, to insure that the professional staff would know about the student to be able to make accurate ratings of him/her.

Results. The analysis of the results was carried out with two separate foci. The first analyses were directed toward establishing the relationships between the scores on the E/C Form range and DMI scores. The second set of analyses investigated the correlations between E/R Form subscales (described above) and DMI subscales.

The E/C Form range was a single rating scale with five points. The five anchors ranged from vocationally undecided to vocationally decided. The five anchors (see Appendix B) were:

1. NON-COMMITTMENT. The individual is not ready to begin making vocational decisions or choices.
2. COMMITTMENT. The individual has made a

committment to begin making vocational decisions. That is, he/she has decided to decide.

3. GOAL ESTABLISHMENT. The individual is evaluating or establishing appropriate vocational or job goals.

4. GOAL ATTAINMENT PLANNING. The individual has established an appropriate vocational/job goal and is planning how to reach that goal (which may include plans for further training or education) relevant to the planning.

5. PLAN OF ACTION. The individual is deciding on the plan or strategy to carry out the goal (which may include seeking a part-time job or making decisions about actual jobs appropriate to his/her goals and capacities, or seeking further training or education to achieve that goal).

The first set of analyses of this Study focussed upon the correlations between this global rating of the student (by the professional) and the student self-ratings on the subscales of the DMI. The results of this correlational analysis are presented on Table 7.

Table 7

Correlations between
E/C Form Range and DMI subscores
across all subjects

DMI Subscales	Correlations: DMI r E/C RANGE r	p	
Employment Readiness	.50	<.001	(n=63)
Self Appraisal	.42	=.001	(n=63)
Decision-Making Readiness	.38	<.005	(n=63)
DMI Total	.48	<.001	(n=63)

As Table 7 shows, the correlations between the global rating on the E/C Form and the DMI subscores were significant. It was interesting to note that, while the test-retest correlations from the previous study suggested that the Employment Readiness scale was less stable, or reliable, than the other DMI scales, in Table 7 the Employment Readiness scale correlated the most highly with the evaluator's rating of the student. Two possibilities seem apparent. It is possible that the global rating scale reflects an employment readiness dimension more than it taps self-appraisal or decision-making readiness. It may also be that, of the three DMI dimensions, an evaluator or counselor has better or more knowledge of a student with whom he/she is working in the area of employment readiness, than in the probably less obvious domains of self-appraisal or decision-making readiness.

Whatever the explanation, Table 7 does indicate that the DMI satisfies the validity criterion of the global scale, in that all DMI scores correlated quite significantly with this dimension.

The second set of correlational analyses was concerned with the correlations between DMI subscales and the corresponding scores on the subscales in the E/C Form. This would give an indication of whether what the student indicated about him/herself on the DMI dimensions was verified by the service professional working with the student, on the same dimensions. The results of this correlational analysis are presented in Table 8.

Table 8

Correlations between
DMI subscales and corresponding E/C Form subscales
across all subjects

	Correlations		
	DMI with E/C Subscores		
Subscales	r	p	
Employment Readiness	.39	=.001	(n=63)
Self-Appraisal	.32	<.025	(n=63)
Decision-Making Readiness	.38	<.01	(n=63)
Total Score	.45	<.001	(n=63)

These patterns of correlations presented a clear picture. That is, the ratings of the students by the evaluators or counselors were significantly correlated with students' self ratings on the DMI.

Tables 7 and 8 support the interpretation regarding the criterion related validity of the DMI. As stated above in the section concerning the purposes of Study 2, the effort in this Study was to ascertain whether self-ratings by students on the DMI would be corroborated by ratings on the same or similar dimensions by service professionals who knew the student fairly well on the DMI dimensions. This required obtaining measurements on a parallel or similar instrument from these professionals, who would be blind to the students' DMI scores. The two types of measurements obtained on the E/C Form were the E/C Range indicator and the subscales on the E/C Form which corresponded to the DMI subscales. All correlations were in the direction of supporting the validity test, and all correlations were significant. This indicates that the DMI received support in regard to criterion validity.

It should be noted, however, that while the correlations were all in the correct direction and significant, they were not as high as some of the correlations found previously. One possible explanation for this may lie in the nature of the dimensions being investigated. Employment Readiness, Self-Appraisal, and Decision-Making Readiness are subjective domains. An individual's self-ratings might remain consistent across multiple self-ratings within the individual, yet vary somewhat with someone else's ratings of the individual on these dimensions. This could occur because the professional making the ratings of the student might possess some information or insight

not available to the student. Conversely, it might reflect the difficulty the professional may have in totally understanding the student. Or both of the above. Such "noise" in correlating two independent convergent indicants of a fairly subjective cognitive realm would certainly contribute to a lowering of possible correlations between the two indicators of the same phenomenon.

The above patterns of correlations were promising for the DMI's concurrent validity. If phenomena such as discussed in the previous paragraph were present to some extent, they would decrease the magnitude of the correlations, and not inflate them. Therefore, the correlations which were obtained supported the criterion validity of the instrument.

VII. Method -- Study 3

The present study had two purposes. First of all, it was directed toward establishing certain demographic and maturational characteristics of students enrolled in specific special education programs which were utilized as research sites. Such a description of this sample will aid in understanding the characteristics of the special education students who served as subjects in this series of studies and who displayed certain characteristics of scores on the DMI. The second purpose was to establish whether any specific of these characteristics seemed related to specific strengths or deficits on various dimensions of vocational decision-making capacities.

Delineating such personal characteristics of special education samples should be helpful in improving the understanding of the specific population under investigation, and should help in identifying certain individuals who may be more or less likely to evidence particular deficits in various dimensions of vocational decision-making capacity.

Design. The design of Study 3 was quite straightforward. Students were administered the DMI. Then the demographic data and other personal data was collected. Depending upon the particular type of information being sought, this data was collected from the student him/herself by interview, from the

records of the school, from the evaluator or counselor working closely with the student, or (if need be) from the guidance counselor at the student's home school which referred the student.

Subjects. The subjects for this study were drawn from two different sites. By utilizing two sites, an adequate number of subjects could be assured. All subjects were students referred for vocational evaluation services or other services offered by the particular site. In this regard, they could be expected to be similar to subjects utilized in both Studies 1 and 2. A total of 312 subjects were included in the data analysis of Study 3, with 117 being drawn from one site, and 195 from the second site.

Instruments. The two instruments used in Study 3 were the DMI and a form for collection for the personal and demographic data. The DMI has been fully detailed above.

The demographic sheet addressed quite a number of areas. The specific areas addressed included:

1. Age
2. Sex
3. Race
4. Marital Status
5. Number of Dependents
6. Living Situation
    1. Living with Parents
    2. Foster Care/Group Home

3. Institutionalized

4. On Own/Spouse

5. With Relatives

7. Source of Referral

8. Purpose of Referral

9. Free Lunch (i.e., is student subsidized?)

10. Specific Primary Disability

11. Type of Disability

12. Age at Onset of Major Disability

13. Parental Employment

Ø. Neither Parent Employed

1. Highest Employment Level of the two parents is/was blue collar.

2. Highest Employment Level of the two parents is/was white collar.

14. Current Grade Level

15. Achievement Tests

A. Reading Vocabulary Test

Reading Vocabulary Score

B. Comprehension Test

Comprehension Score

C. Total Test

Total Score

D. Mathematics Computation Test

Mathematics Computation Score

E. Concepts/Problems Test

Concepts/Problems Score

F. Mathematics Total Test

Mathematics Total Score

16. Intelligence Tests

A. Verbal Ability Test

Verbal Ability Score

B. Performance Ability Test

Performance Ability Score

C. Full Scale Test

Full Scale Score

17. McCarron-Dial Peabody IQ Score

18. Street Survival Skills Questionnaire Quotient

Procedures. Two sites were utilized for Study 3. One site was the Minnesota White Bear Lake site also utilized in Study 1 -- WB916. This has been described previously. This site supplied 195 subjects.

The other site, in Cincinnati, Ohio, was a program which is part of the public school system of Cincinnati, Ohio. The program was WATCH, the Work Adjustment and Training Center for the Handicapped. This program serves large numbers of handicapped high school students, primarily from the inner city areas. Vocational Evaluation is an integral part of this program, and all students from the WATCH site received this service. This site provided 117 subjects for Study 3.

At both sites, the procedures for Study 3 involved gathering DMI data, and then collecting demographic data from the student,

from the records, or from other sources appropriate for the specific type of data being sought. At WB916, this data was collected by the research technician stationed at that site. At WATCH, it was collected by the evaluators at that school who were participating in this study.

All subjects were informed of the nature of the study prior to their participation, and every potential subject was free to decline participation. Whether students participated or not had no bearing on the services or sequence of services which they received at either of the sites.

At the White Bear site, the research technician collected the DMI data herself, and then gathered the demographic data during the interview or from the records or other school personnel. At times, the data collection required the research technician to go beyond the site and into the home school of the subject. This was particularly true for data relating to intelligence and other measures which were collected at the home school.

The WATCH data was collected by the vocational evaluators working with the students. As each subject began the vocational evaluation process, the DMI was administered, and then the demographic data was collected.

Results. For purposes of this report, the results fall into two sections. First, the DMI subscores for the two sites will be reported. This will be followed by a description of the characteristics of the subjects at each of the two sites.

Secondly, the data concerning specific aspects of the demographic information which relate to specific patterns of DMI scores will be presented.

This study, therefore, specifically addressed Objective 3, in that it established the demographic and other characteristics of the students at these sites with various patterns of DMI scores, and then determined whether any particular of these characteristics were correlated with specific strengths or deficits on the dimensions of vocational decision-making, as assessed on the DMI.

For purposes of clarity of the results, the data for each of the two sites (below) was presented parallel, but separately. The major reason for this was that the two sites were distinctly different. The White Bear Lake site was in the upper Midwest. The WATCH program in Cincinnati served primarily an inner city student population. The two samples represented quite different populations of students. With this concept as a starting point, it was judged important to differentiate between such totally different populations.

Patterns of DMI subscores were delineated for each of the two sites, and the results are detailed in Table 9. This table describes the means for Employment Readiness, Self-Appraisal, Decision-Making Readiness, and the DMI total score for each of the two sites utilized.

Table 9

Patterns of means on the DMI subscales
for the White Bear and Cincinnati sites

Scales	DMI Means WB916	WATCH
Employment Readiness	12.40	11.46
Self-Appraisal	16.21	14.36
Decision-Making Read.	17.66	14.07
DMI Total	46.27	39.89

As Table 9 clearly shows, there were differences between the two sites on DMI scores. In particular, the site in Cincinnati showed consistently lower DMI means than the other site. This probably reflects differences in the subject populations at these two sites, and the demographic descriptors below, separated by site, help clarify what some of these subject differences may be.

The following describes some of the particular characteristics of the subjects at the two sites which were utilized in this Study.

1. Age. The typical subject utilized in this study was between sixteen and seventeen years of age. The mean for WB916 was 16.8 and the mean for WATCH was 16.6 (virtually no difference). The distributions for age are shown in Table 10.

Table 10

Distributions of student ages
at the two research sites
(in percents)

Age Ranges	Sites	
	WATCH	WB916
16 or lower	60%	35%
17 to 18	37%	62%
19 to 20	3%	3%

2. Sex. Distributions showed that there more males than females represented, with WB916 evidencing 47% females and WATCH having 37% females.

3. Race. The two sites differed greatly on this variable. At WB916, virtually all students (96%) were white, while at WATCH the percentage of white students was 45%. Fifty-five percent of the students were black.

4. Marital Status. At both sites, all students used as subjects were single.

5. Number of Dependents. As expected, less than one percent of the students in both samples had one or more dependents.

6. Living Situation. The data for this variable are shown on Table 11. As can be seen, the vast majority of students lived at home with parents. This pattern was quite similar across both sites.

Table 11

Living situations of the students
(in percents)

Living Situation	Locations WATCH	WB916
Living with parents	86%	91%
Foster care/Group home	9%	6%
Institutionalized	3%	1%
On own/Spouse	2%	1%
With relatives	--	2%

7. Referral Sources. Four different categories for referral sources were assessed, and these can be seen in Table 12. The patterns clearly show that there were distinct differences in the referral sources between the two sites. At WB916, referrals came from a broader base of referral sources, and the most frequent referral source at this site was a counselor or special education teacher, while at WATCH the most frequent referral source was a work study coordinator.

Table 12
Referral sources
(in percentages)

Referral Sources	Locations WATCH	WB916
DVR, BVR, State service for the blind	1%	1%
Group home, Family, JTPA, other	14%	3%
Work Study Coordinator	63%	0%
Counselor, Specialized Teacher, other	23%	96%

8. Referral Purposes. Consistent with the differences found in Table 12 regarding the referral sources, the purposes of the referrals were also widely different, as can be clearly seen in Table 13. At the WATCH program, the primary stated purpose of the referrals was for mainstreaming, while at WB916 the primary referral reason was evaluation. Several other differences are also apparent from this table. Caution, however, is recommended in arriving at conclusions based upon this table, since some of the apparent differences might well be related to semantic definitions.

Table 13

Referral purposes
(in percentages)

Referral Purpose	Locations WATCH	WB916
Mainstreaming	81%	0%
Rehabilitation services	4%	0%
Job Exploration/Training	6%	0%
Other	9%	8%
Evaluation	0%	92%

9. Subsidization. At the Cincinnati WATCH site, an item was included which was intended to identify the percentages of students whose families were subsidized. To assess this, the students were asked whether they get a free lunch, since this is an important indicant of subsidy. This was asked since students could definitely answer this question. The results showed that,

in this sample, 66% of the students were from families receiving subsidy.

10. Individualized Education Plan. Most of the students from both samples had an IEP. At WATCH, 94% had an IEP, while at WB916 82% had an IEP.

11. Primary Disabilities. The data for primary disabilities showed some distinct differences between the two study locations, and these are presented on Table 14. It should be noted that some of the percentages total to slightly more than 100%, and this is due to some students being clearly identified as having two major disabilities. In addition, one of the samples includes a substantial number of students who were not classified as being specifically handicapped.

Table 14

Primary Disabilities
(in percentages)

Primary Disabilities	Locations WATCH	WB916
Developmental Handicap	62%	15%
Specific Lear. 'ng Disability	18%	17%
Severe Behavioral Handicap	15%	0%
Orthopedic Handicap	0%	13%
Hearing Handicap	0%	0%
Visual Handicap	3%	3%
Speech/Language Handicap	1%	1%
Other disability	3%	15%
Non Handicapped	0%	42%

12. Age at Onset. This data is presented for only one of the sites (WATCH), since it was obtainable for too few students at the other site to enable the drawing of valid conclusions. At the WATCH program, age of onset of disability showed the following distribution:

A.	Congenital	4%
B.	Childhood (0-10 yrs)	94%
C.	Adolescence (11-15 yrs)	2%

Few of the disabilities were classified as being congenital, and the ages of the sample obviously set adolescence as the upper bound for age at onset. The vast majority of the sample had a disability that was considered to have had an onset before the age of ten.

13. Parental Employment. This item was designed to give an indication of the socio-economic status of the student's family by describing the highest level of employment of both of the parents. Respondents were asked to describe what each of their parents did for a living, as well as what other occupations or jobs each had pursued. If answers were unclear or vague, the data was not used. The responses were then classified as indicating either blue or white collar occupations, and the highest level of either of the parents was utilized as the data. Because of considerable numbers of students who did not know what their parents did for a living, the numbers upon which the percentages are based were combined across sites. Therefore the

percentages should be viewed in a cautious manner. Table 15 presents these percentages.

Table 15

Parental Employment
(in percentages)

Highest Employment Level of Either Parent	%
Neither Employed	12%
Blue Collar	59%
White Collar	29%

14. Current Grade Level. This data was used to indicate the student's current grade. The results for the entire sample of students (across sites) were:

Ninth Grade	11%
Tenth Grade	24%
Eleventh Grade	37%
Twelfth Grade	27%

Clearly, the most frequent grade level in this sample of students was the eleventh grade. Roughly equal percentages of students were in the tenth and twelfth grades, and a small number of students were in the ninth grade.

15. Achievement Scores. A wide range of achievement test instruments were administered to many of these students in the course of their educational programs. As many of these scores as possible were collected from students' counselors or psychologists. This often required going back to the students'

home schools. The primary instruments used to obtain the scores of achievement were the following:

Test of Adult Basic Education

Stanford Elementary Battery Form J

Wide Range Achievement Test

Gates A

Gates B

Gates C

Gates D

Gates E

Since different students were tested with different tests, the data to be presented here is not broken down by test instrument. Rather, mean scores will be given, and an assumption about comparability of corresponding scores utilizing different instruments to derive those scores will have to be made.

Table 16 presents mean scores on the different areas of achievement on which data was available.

Table 16

Achievement Scores
(in means)

Achievement Area	Locations WATCH	WB916
Achievement Reading Vocabulary Score	46.6	68.4
Achievement Comprehension Score	46.Ø	----
Achievement Total Reading Score	44.9	----
Achievement Mathematics Computation Score	47.5	----
Achievement Concepts/Problems Score	44.1	----
Achievement Mathematics Total Score	46.Ø	58.2

The patterns of the achievement scores clearly show that at the site with the complete data, the average scores of the students were well in the 40's. Several of the scores at the other site suggested a pattern of somewhat higher scores.

The above description was intended to give an indication of the nature of the student population utilized in this study, and also to give clarification of what some salient characteristics of the students were.

The next step of Study 3 was to utilize a number of the variables, which have been described above, in analyses to determine whether any of them would be predictors of particular

strengths or deficits in the areas of vocational decision-making, as assessed by the DMI.

The second aspect of the data analysis of Study 3 was concerned with whether any particular of the above described characteristics of the students in these samples were related to particular scores on the subscales of the DMI. That is, the concern was with whether knowing something about the characteristics of the students would be helpful in predicting high or low scores on the DMI. If any particular demographic characteristic would be highly correlated with a low or high score on one of the DMI dimensions, then this information might prove useful in prescribing treatment strategies directed toward that realm of the DMI which is likely to be deficient.

Since the above results section clearly pointed out that the two primary sites utilized in Study 3 were quite different in the characteristics of the students which they served, two separate sets of analyses were conducted on the data, one for each site.

The first set of correlational analyses utilized the data collected at the WATCH site, which has been described above. These analyses used the personal data as correlates of DMI scores. Two clusters of correlations were found in these analyses. One related to a relationship between two specific types of disabilities and DMI scores, and the other was a relationship between several achievement scores and DMI scores.

Table 17 shows the relationships obtained between several specific achievement scores and DMI scores. All correlations

reported in this table are at or beyond the .Ø5 level of significance.

Table 17

Achievement Scores and DMI correlations (WATCH sample)

Achievement Scores	DMI Subscales Self-Appr.	Dec.Mak. Read	DMI Total
Reading Vocabulary Score	.21	.2Ø	.24
Total Score	---	.21	.22
Concepts/Problems Score	.22	---	.21

As can be seen, there was a significant positive relationship between several achievement scores and DMI scores. It might be expected that students who scored higher on the above achievement dimensions might also score somewhat higher on some vocational decision-making dimensions. However, the above correlations, while significant, only accounted f a small percentage of the variance, and therefore they should be interpreted as suggesting a relationship rather than establishing one.

Two further sets of significant correlations were also found for this WATCH sample. The disability categories of developmentally handicapped and behaviorally handicapped were found to correlate with several DMI subscores, but in opposite directions. Developmentally handicapped correlated significantly negatively with Employment Readiness, Decision-Making Readiness,

and DMI Total score, while Behaviorally Handicapped correlated significantly positively with the same three DMI scales. These results suggest that students classified as being developmentally handicapped had a tendency toward evidencing lower employment Readiness, Decision-Making Readiness, and Total scores, while those who were behaviorally handicapped tended to show higher scores on these three DMI scales. Again, the caution applies (as above) about overinterpretation of correlations in the 20s.

At the WB916 site, patterns of correlations were somewhat different. A low but significant correlation of .14 ($p<.05$) between age and Decision-Making Readiness score suggested that there was a trend for older students to score somewhat better on Decision-Making Readiness. Consistent with this correlation, two further significant correlations were found for student's grade level and both Decision-Making Readiness and DMI Total Score. These correlations were, respectively, .18 ($p = .01$) and .17 ($p = .02$). No further significant relationships between student variables and DMI scores were found for the WB916 sample. Again, it should be stressed that while the above correlations were significant, they were quite low, and therefore should be interpreted with caution.

VIII. Discussion and Conclusions

This project represents a major effort at determining the reliability, validity, and utility of the vocational Decision-Making Interview (DMI) to a special education population of handicapped students within our school system. The DMI has been developed within the field of rehabilitation, and therefore the reliability and validity data which has been available for this instrument has heretofore only applied specifically to vocational rehabilitation clients.

As pointed out in the Introduction, the vocational Decision-Making Interview (DMI) has shown considerable promise with this rehabilitation client population, in that the data regarding the instrument's internal consistency (i.e., an indicant of reliability) was quite positive, as was the data concerning the instrument's discriminant validity. In addition, further research cited previously (which used a test-retest design) indicated that this instrument was significantly sensitive to treatment effects of a vocational evaluation intervention, while at the same time maintaining a high degree of stability within subjects (i.e., significant treatment effects on the retest means were found, while concurrently the pre- to post- correlations indicated a high degree of stability).

Within the field of special education, it is also extremely important to deal with the vocational decision-making processes

of students, as they make their transition from a school setting to the world of work, or perhaps to further training to better prepare for the world of work. Many services are provided to handicapped students within special education settings. It was pointed out previously that many such services involve the student in the making of vocational choices or decisions, and it would be of great benefit to service providers as well as to students if a reliable, effective and useful instrument could be developed which would efficiently pinpoint areas within this realm which might require special attention or particular individualized programs. The DMI could be an extremely useful tool to vocational evaluators and counselors within school settings.

However, it was first considered necessary to investigate whether the DMI, with any necessary modifications, appeared to be appropriate to this population of students, as well as to the needs of professionals working with these students in the realm of making vocational decisions and choices.

In a series of three discrete studies, this project addressed this issue. The initial phase of this project was an instrument adaptation stage. The next phase (Study 1) was primarily concerned with establishing the test-retest reliability of the DMI with special education students, utilizing test-retest intervals ranging from two weeks to a full school year, and including disability type (cognitively disabled vs. physically disabled vs. non-disabled) as a variable. Study 2 investigated

the criterion-related validity of the DMI by comparing students' self-rated DMI scores with independent judgements on the same dimensions made by evaluators or counselors about the same students. Study 3 was concerned with establishing the maturational and other demographic characteristics of students with various patterns of DMI scores, and then determining whether any of these characteristics were correlated with specific strengths or deficits on DMI scores.

The results of this series of studies were encouraging. First of all, at the Instrument Adaptation Phase, the DMI did not require major modifications in shifting its focus from a rehabilitation client population to a special education student population. The major modifications were of the type which required some differences in explanations when items were clarified or expanded upon for the students. A positive aspect of the instrument is that, being a structured interview, it allows for such explanations and clarifications.

The three studies found a number of interesting results. In terms of test-retest reliability, Study 1 found the DMI to be an extremely stable instrument. Across all test-retest intervals, DMI means were virtually identical between the initial test and the retest. Furthermore, the correlations between the initial DMI and the second DMI were high and significant. In fact, every subscale of the DMI evidenced significant correlations across test-retest intervals ranging from two weeks to a full school year. There was a suggestion that the

Employment Readiness subscale correlated the lowest, and these correlations ranged from .55 to .63. Correlations for the other subscales and Total score, across test-retest intervals, ranged from .58 to .87. No evidence was found relating to differential reliability (across time) as a function of disability category, suggesting that the DMI appears to be appropriate to a range of disability categories. However, there was a clear effect of disability category on DMI scores, with non-handicapped students scoring significantly higher on the DMI subscales than either the cognitively or the physically handicapped students.

Study 1, therefore, demonstrated that the DMI instrument appeared to be appropriate to the special education students used as subjects. It was reliable over time for diverse types of students, and seemed sensitive to differences between handicapped and non-handicapped students.

Study 2 was directed toward the criterion related validity of the DMI. The results for this study were also encouraging. Independent indicators of DMI subscales, completed by evaluators and counselors who were blind to DMI scores, validated the DMI scores collected from the students themselves. Two such types of indicators were used. One was a five-point rating scale of vocational decidedness, ranging from "Non-Committment" to "Plan of Action". The other was a rating form parallel to the DMI but completed by the evaluator or counselor. Both types of criteria were positively and significantly correlated with DMI subscales,

suggesting that the DMI has satisfactory criterion-related validity for these samples of special education students.

Study 3 established patterns of demographic and other personal variables for a total sample of over 300 students at two diverse sites. A number of interesting patterns were established for these samples, and clear differences were defined between the two sites. These results should be helpful in understanding what the students may be like who have different types of DMI score patterns, and for generalizing to other sites which may have very different student types. Secondly, further analyses suggested that a number of characteristics were predictors of DMI score patterns. Specifically, several achievement score patterns suggested that low scores on these instruments may be related to lower scores on the DMI Self-Appraisal, Decision-Making Readiness, and Total score. Further, the disability category of developmental handicap was negatively related to several DMI subscales (i.e., developmentally handicapped students tended to score lower on these DMI dimensions), while the "behaviorally handicapped" designation was positively correlated (in a relative sense) to DMI scores.

Overall, these studies were positive for the utilization of the DMI with handicapped special education students. The studies showed that the instrument is reliable, and also valid by the criterion established. These patterns are consistent with findings of other studies utilizing this instrument, albeit in different settings. The results clearly suggest that the DMI is

appropriate to a population of handicapped (as well as non-handicapped) students within our educational system.

An additional result of utilizing the DMI at the research sites was that feedback was obtained from several of the evaluators and counselors who participated in these research studies. One of the primary results which this feedback provided was the opportunity to explore the perceptions of this instrument by practitioners in the field. One of the major responses to using this instrument was that several practitioners felt that the DMI was very useful to them, in that it provided them with information, out front, which otherwise was usually not obtained until later in the evaluation process. By having this information available early on in the process of a vocational treatment, it was possible to begin the individualization of programs to more effectively meet the specific needs of students. This would ultimately make the program more responsive to the needs of students, and therefore also more efficient and cost effective. Further, even if individualization of a treatment program was not possible, the feedback indicated that the DMI was a focussed, structured approach to gathering vocational decision-making capacities information, and this insured that the evaluators or counselors efficiently and effectively gathered the type of information which would be needed as they worked with the students.

In summary, this series of studies examined the reliability and validity of the vocational Decision-Making Interview to

handicapped and non-handicapped special education students. The results were encouraging, as detailed in the Results section. The overall results of these studies strongly suggested that the DMI can be a useful tool for special education professionals, and therefore also to handicapped students within special education. It is hoped that this series of studies will encourage evaluators, counselors, and other professionals within special education to begin utilizing the DMI in their daily work with students, and that such utilization will help students and improve the effectiveness and efficiency of the programs in which the students are participating.

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Appendices

Appendix A

The Vocational Decision-Making Interview (DMI)

VOCATIONAL DECISION-MAKING INTERVIEW (DMI)

Circle one answer for each question; and fill in the blanks as necessary.

T = True NS = Not Sure F = False

SECTION ONE

	True	Not Sure	False	
1. I want to get a job soon.	T	NS	F	
2. I should decide on a job soon.	T	NS	F	
3. I have decided what kind of job I would like to have. 1st Choice: _____ 2nd Choice: _____ 3rd Choice: _____ (If "false" or "not sure", got to #5)	T 3	NS 2	F 1	*
4. I am sure about this choice.	T	NS	F	
5. I know what kind of career I would like to have, that is, what type of work I would like to do for the rest of my life. 1st Choice: _____ 2nd Choice: _____ 3rd Choice: _____ (If "false" or "not sure", got to #7)	T 3	NS 2	F 1	*
6. I am sure about this choice.	T	NS	F	
7. I would take any job.	T	NS	F	

SECTION TWO - INFORMATION PROBLEMS

Self Knowledge

	True	Not Sure	False	
NEEDS				
8. I know how much money I would need to earn from a job. How much money? _____	T 3	NS 2	F 1	*
9. I have a preference for the part of town, state, or country that I take a job in. Where would you prefer? _____	T 3	NS 2	F 1	*
10. I know what types of work I would not do, even if I made a lot of money. What types of work? _____	T 3	NS 2	F 1	*
11. I know enough about my own needs to decide about jobs. List three of your needs: 1. _____ 2. _____ 3. _____	T 3	NS 2	F 1	*
BELIEFS AND INTERESTS				
12. There are certain types of jobs I wouldn't take because of my own beliefs - that is, because of the things I believe in.	T	NS	F	
13. I know enough about my beliefs to decide about jobs. List three of your beliefs that would help you decide to take or not take a job. 1. _____ 2. _____ 3. _____	T 3	NS 2	F 1	*
14. I know what types of work would be interesting to me. What types of work? _____	T 3	NS 2	F 1	*

	True	Not Sure	False	
BELIEFS AND INTERESTS (continued)				
15. I know enough about my interests to decide about jobs. List three of your interests: 1. _____ 2. _____ 3. _____	T 3	NS 2	F 1	*
ABILITIES				
16. I know what kinds of work I am good at doing. What kinds of work? _____	T 3	NS 2	F 1	*
17. If I had more training, I know what kinds of work I would do. What kinds of work? _____	T 3	NS 2	F 1	*
18. I know how my disability limits the kinds of work I could do. How does it limit the kinds of work you can do? _____	T 3	NS 2	F 1	*
19. I know enough about my abilities to decide about jobs. List three of your abilities: 1. _____ 2. _____ 3. _____	T 3	NS 2	F 1	*
PERSONALITY				
20. I change my opinion of myself a lot.	T	NS	F	
21. If someone asked me, I could describe myself, my personality, accurately.	T	NS	F	
22. I know what kind of life I want for myself.	T	NS	F	

	True	Not Sure	False	
PERSONALITY (continued)				
23. I know enough about myself to decide about jobs. List three things about yourself:	T	NS	F	
1. _____				
2. _____				
3. _____	3	2	1	*
OPPORTUNITIES AND REQUIREMENTS				
24. There are some jobs that I have been thinking about. Name three jobs that you have been thinking about:	T	NS	F	
1. _____				
2. _____				
3. _____	3	2	1	*
25. I know how much education or training I need for jobs that I would like to have.	T	NS	F	
How much education or training? _____	3	2	1	*
26. I know how much experience I need for the jobs I would like to have.	T	NS	F	
How much experience? _____	3	2	1	*
I have enough information on opportunities and requirements to decide about jobs.	T	NS	F	
27. Name three job opportunities:				
1. _____				
2. _____				
3. _____	3	2	1	*
28. Name three requirements:				
1. _____				
2. _____				
3. _____	3	2	1	*

	True	Not Sure	False	
TASKS AND DUTIES				
29. I understand the responsibilities that are common to all jobs. Name three responsibilities that are common to all jobs. 1. _____ 2. _____ 3. _____	T 3	NS 2	F 1	*
30. I know what kinds of tasks I would be doing on the jobs I have thought about. Name three tasks: 1. _____ 2. _____ 3. _____	T 3	NS 2	F 1	*
31. I know what responsibilities I would have on the jobs I have been thinking about. Name three responsibilities you would have on these jobs: 1. _____ 2. _____ 3. _____	T 3	NS 2	F 1	*
32. I know enough about what different jobs are like to help me decide about jobs. Name three important things about jobs you are thinking about: 1. _____ 2. _____ 3. _____	T 3	NS 2	F 1	*
REWARDS AND DRAWBACKS				
33. I could name some rewards or good things about some jobs. Name three rewards or good things: 1. _____ 2. _____ 3. _____	T 3	NS 2	F 1	*

	True	Not Sure	False	
REWARDS AND DRAWBACKS (continued)				
34. I could name some things that I would not like about some jobs. Name three things you wouldn't like: 1. _____ 2. _____ 3. _____	T 3	NS 2	F 1	*
35. I could name some of the fringe benefits that I should consider to decide on a job. Name three fringe benefits: 1. _____ 2. _____ 3. _____	T 3	NS 2	F 1	*
I know enough about the advantages and disadvantages of different jobs I might consider to decide about jobs.	T	NS	F	
36. Name three advantages: 1. _____ 2. _____ 3. _____	 3	 2	 1	*
37. Name three disadvantages: 1. _____ 2. _____ 3. _____	 3	 2	 1	*

SECTION THREE - DECISION MAKING PROBLEMS

Acquisition of Information

38. I know where to get information on different jobs. Where would you get it? _____ _____	T 3	NS 2	F 1	*

Acquisition of Information (continued)

	True	Not Sure	False	
39. I know whom to ask to get information on different jobs. Whom would you ask? _____ _____	T 3	NS 2	F 1	*
40. I know how to find out which jobs I could do. How would you find out? _____ _____	T 3	NS 2	F 1	*
41. I know how to find out which jobs I would be interested in. How would you find out? _____ _____	T 3	NS 2	F 1	*
42. I know how to get enough information on jobs to make a job choice.	T	NS	F	

Processing of Information

43. If I know what a job is like, I can decide if I could do the work. How would you decide? _____ _____	T 3	NS 2	F 1	*
44. If I know what a job is like, I can decide if I would be interested in doing the work. How would you decide? _____ _____	T 3	NS 2	F 1	*
45. There are some jobs I could be good at doing. Name three jobs: 1. _____ 2. _____ 3. _____	T 3	NS 2	F 1	*
46. There are some jobs that are interesting to me. Name three jobs: 1. _____ 2. _____ 3. _____	T 3	NS 2	F 1	*

Skills in Choosing

	True	Not Sure	False	
47. I can describe the steps I would take to decide about a job. Describe the steps: _____ _____ _____	T 3	NS 2	F 1	*
48. If there were several jobs that I was interested in, I would know how to choose among them. How would you choose? _____ _____ _____	T 3	NS 2	F 1	*
49. I would be good at choosing a job on my own.	T	NS	F	
50. I know enough about how to make decisions to make a job choice.	T	NS	F	

Success in Previous Choices

Have you had to make decisions about jobs before?
Yes No (Circle one)
(If not, go to Responsibility/Control)

51. The decisions I have made about jobs have worked out O.K.	T	NS	F
52. Having to make decisions about jobs is an unpleasant task.	T	NS	F
53. Others often disagree with my decisions about jobs.	T	NS	F
54. I have had good luck making decisions about jobs.	T	NS	F

Responsibility/Control

55. I have made decisions about whether to take a job or not.	T	NS	F
56. A job will come along no matter what I do.	T	NS	F
57. I have let others decide which job was best for me.	T	NS	F

Anxiety/Fear of Decision-Making

	True	Not Sure	False
58. I get upset when I have to make a decision about a job.	T	NS	F
59. I would rat let things happen by themselves than make a choi about a job.	T	NS	F
60. I feel sure of myself when I have to make a decision about a job.	T	NS	F
61. I would like to avoid making a decision about a job.	T	NS	F

SECTION FOUR - ENVIRONMENTAL PROBLEMS

Family/Social

COERCION			
62. I would take a job that my family and/or friends didn't approve of.	T	NS	F
63. I let others decide which jobs I should take so they don't criticize me.	T	NS	F
64. I don't worry about letting others down by taking a job they wouldn't approve of.	T	NS	F
65. Others expect me to take a certain type of job; so I will, even though I'm not sure it will be right for me.	T	NS	F

LACK OF REINFORCEMENT			
Do you have some friends? Yes No (Circle one)			
Do you have a family? Yes No (Circle one)			
Are you married? Yes No (Circle one)			
66. My friends (family, spouse) want me to get a job.	T	NS	F
67. I would feel good if I could tell my friends (family, spouse) that I got a job.	T	NS	F

	True	Not Sure	False
LACK OF REINFORCEMENT (continued)			
68. My friends (family, spouse) do not encourage me much to look for a job.	T	NS	F
69. My friends (family, spouse) would be proud of me if I got a job.	T	NS	F

Economics

70. I would be better off financially from various types of aid and social services than if I got a job.	T	NS	F
71. I can't buy the things I want without getting a job.	T	NS	F
72. The type of job I will get will not pay enough to make it worth my while.	T	NS	F
73. Money is one of the reasons to look for a job.	T	NS	F

Mobility

74. If I had to, I could move to a different place in or out of town to get a job.	T	NS	F
75. If I had to, I would move to a different place in or out of town to get a job.	T	NS	F
76. I could find a way to get to work and back home again no matter where I lived.	T	NS	F
77. I have few job choices, because it is hard for me to get around.	T	NS	F

SECTION FIVE - GENERAL

	True	Not Sure	False	
78. Of all the things you have been asked about, what are the most important to making a good job or career decision?	3	2	1	*
79. Of all the things you have been asked about, what things would you like help on to make a job choice?	3	2	1	*
80. In general, what are your reasons for wanting a job?	3	2	1	*

Appendix B

The Evaluator/Counselor (E/C) Form

EVALUATOR/COUNSELOR FORM

Client: _____ Facility: _____

Evaluator: _____ Date: _____

The following items span a range on the dimension of client vocational decision-making, from 1 to 5. Please check (✓) the one item that best describes the client's current level in terms of vocational decision-making.

1. _____ NON-COMMITMENT. The client is not ready to begin making vocational decisions or choices.

2. _____ COMMITMENT. The client has made a commitment to begin making vocational decisions. That is, the client has decided to decide.

3. _____ GOAL ESTABLISHMENT. The client is evaluating or establishing appropriate vocational or job goals.

4. _____ GOAL ATTAINMENT PLANNING. The client has established an appropriate vocational/job goal and is planning how to reach that goal (which may include plans for further training) relevant to the planning.

5. _____ PLAN OF ACTION. The client is deciding on the plan or strategy to carry out the goal (which may include seeking a part-time job or making decisions about actual jobs appropriate to the client's goals and capacities).

Based on the knowledge you acquired about this client during the course of Vocational Evaluation, respond to each of the items on the following pages. Your answers should reflect your judgment of the client at the end of the client's vocational evaluation program. Items were designed to obtain an indication of the client's capacity to make vocational decisions, as judged by you. Do not respond to the items on the basis of whether the client has improved or not during Evaluation. Rather, make an absolute judgment based on now--"What is the state of the client now?"

Answer each of the items in the following way by checking boxes:

1. TRUE - based on the information you have, the statement is consistently true of the client;
2. PERHAPS - based on the information you have, the statement is only occasionally true or partially true of the client;
3. FALSE - based on the information you have, the statement is generally not true of the client; or
4. INSUFFICIENT INFORMATION - you do not have sufficient information about the client to decide whether the statement is true of the client or not.

On each item to which you checked TRUE, PERHAPS, OR FALSE, also indicate the basis for your judgment. For example, was your judgment based on direct observation, on work sample results, on client verbalizations, on your own estimation, and so on.

Remember, DO NOT SKIP any of the 20 items.

Please make a judgment about this client at this point in time.

	TRUE	PERHAPS	FALSE	INSUFFICIENT INFORMATION TO JUDGE
1. The client knows enough about own financial needs to make vocational decisions	☐	☐	☐	☐
	1	2	3	4
If you checked 1, 2, or 3, on what was your judgment based?				
2. The client knows enough about own geographical preferences to make vocational decisions	☐	☐	☐	☐
	1	2	3	4
If you checked 1, 2, or 3, on what was your judgment based?				
3. The client knows enough about own job likes and dislikes to make vocational decisions	☐	☐	☐	☐
	1	2	3	4
If you checked 1, 2, or 3, on what was your judgment based?				
4. The client knows enough about own beliefs and interests to make vocational decisions.	☐	☐	☐	☐
	1	2	3	4
If you checked 1, 2, or 3, on what was your judgment based?				
5. The client knows enough about own abilities, disabilities, and limitations to decide about jobs he/she can do now or could do with further training.	☐	☐	☐	☐
	1	2	3	4
If you checked 1, 2, or 3, on what was your judgment based?				

	TRUE	PERHAPS	FALSE	INSUFFICIENT INFORMATION TO JUDGE
6. The client knows enough about own personality to make vocational decisions	☐ 1	☐ 2	☐ 3	☐ 4
If you checked 1, 2, or 3, on what was your judgment based?				
_____				
_____				
7. The client knows enough about job opportunities that may be available to make vocational decisions . . .	☐ 1	☐ 2	☐ 3	☐ 4
If you checked 1, 2, or 3, on what was your judgment based?				
_____				
_____				
8. The client knows enough about job requirements, such as education, training, and experiences needed, to make vocational decisions	☐ 1	☐ 2	☐ 3	☐ 4
If you checked 1, 2, or 3, on what was your judgment based?				
_____				
_____				
9. The client knows enough about tasks and responsibilities of various jobs to make vocational decisions	☐ 1	☐ 2	☐ 3	☐ 4
If you checked 1, 2, or 3, on what was your judgment based?				
_____				
_____				
10. The client has sufficient information about the positive and negative aspects of different jobs to make vocational decisions	☐ 1	☐ 2	☐ 3	☐ 4
If you checked 1, 2, or 3, on what was your judgment based?				
_____				
_____				

	TRUE	PERHAPS	FALSE	INSUFFICIENT INFORMATION TO JUDGE
11. The client knows how to obtain adequate information about different jobs he/she could do or that would be interesting to enable the client to make vocational decisions	☐ 1	☐ 2	☐ 3	☐ 4

If you checked 1, 2, or 3, on what was your judgment based?

_____

_____

12. The client is able to process information about jobs (i.e., given information about a job, the client could decide if he/she could do the job well and would find it interesting) to a sufficient extent to make vocational decisions.	☐ 1	☐ 2	☐ 3	☐ 4

If you checked 1, 2, or 3, on what was your judgment based?

_____

_____

13. The client has the capacity and reasoning skills necessary to select among various vocational alternatives	☐ 1	☐ 2	☐ 3	☐ 4

If you checked 1, 2, or 3, on what was your judgment based?

_____

_____

Has the client made job decision(s) in the past?

☐ Yes ☐ No

If NO, skip to Item 15.

14. Job decision(s) the client has made in the past appear to have been well made.	☐ 1	☐ 2	☐ 3	☐ 4

If you checked 1, 2, or 3, on what was your judgment based?

_____

_____

	TRUE	PERHAPS	FALSE	INSUFFICIENT INFORMATION TO JUDGE
	1	2	3	4

15. The client feels that he/she has control over and responsibility for own vocational decisions. . . .

    If you checked 1, 2, or 3, on what was your judgment based?

    _____

    _____

16. The client does not have an excessive level of anxiety or fear about making vocational decisions, that would prevent him/her from making such decisions. . . . . .

    If you checked 1, 2, or 3, on what was your judgment based?

    _____

    _____

17. The client would make job decisions appropriate to own interests even if they were not popular with family or friends. . . . . .

    If you checked 1, 2, or 3, on what was your judgment based?

    _____

    _____

Does the client have some close/supportive friends?

☐ Yes ☐ No

Does the client have a family to which he/she has definite emotional ties?

☐ Yes ☐ No

Is the client married or living in a warm, ongoing relationship?

☐ Yes ☐ No

18. The client receives encouragement from friends, family, or spouse toward making vocational decisions. . . . . .

    If you checked 1, 2, or 3, on what was your judgment based?

    _____

    _____

	TRUE	PERHAPS	FALSE	INSUFFICIENT INFORMATION TO JUDGE
19. The client understands that having consistent and sufficient financial resources (i.e., a regular income) is an important reason for making vocational decisions	☐ 1	☐ 2	☐ 3	☐ 4
If you checked 1, 2, or 3, on what was your judgment based?				
20. The client's considerations of vocational choices are <u>not</u> severely restricted by an unwillingness to move to a different location more convenient to a job, vocational, or training opportunities. . .	☐ 1	☐ 2	☐ 3	☐ 4
If you checked 1, 2, or 3, on what was your judgment based?				

VDC EVALUATION INFORMATION

1. Overall length of client's Evaluation: _____ days.

2. For this item, use either the percent column or the days column to indicate the time the client spent in:

	Percent* of Time	Days** (or Parts of Days)
A. Psychometrics	_____%	_____Days
B. Work Samples.	_____%	_____Days
C. Job Exploration	_____%	_____Days
D. Morning Program	_____%	_____Days
E. Counseling.	_____%	_____Days
F. Other (specify) _____	_____%	_____Days

_____

_____

* Check to see that the percents add up to 100.
**Check to see that the days add up to Item 1 above.

3. Did anything occur or happen to or with the client during the course of the Evaluation (not accounted for by A - F above) which might affect the client's level of vocational decision-making? If so, please indicate below what happened, its duration, and what effect you think this had on the client.