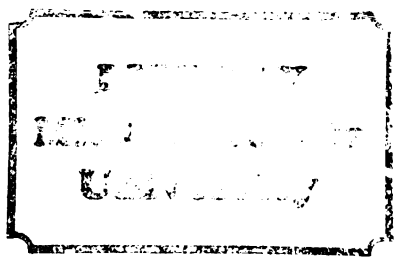

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Development of the Independent Living Referral Inventory, a Component of the Client Referral inventory, with an Experimental Approach Toward Field Testing

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Valerie Julia Ellien

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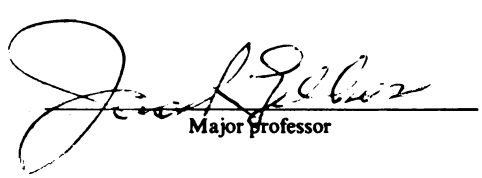

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Development of the Independent Living Referral Inventory, a Component of the Client Referral Inventory, with an Experimental Approach Toward Field Testing

By

Valerie Julia Ellien

A Dissertation

Submitted to
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ABSTRACT

Development of the Independent Living Referral Inventory, a Component of the Client Referral Inventory, with an Experimental Approach Toward Field Testing

By

Valerie Julia Ellien

The purpose of this study was to develop and test an inventory which would guide vocational rehabilitation counselors through a problem solving approach to client assessment in the areas of personal-social adjustment and independent living.

The instrument, the Independent Living Referral Inventory (ILRI), was developed by means of an extensive review of the literature including functional asssessment instruments currently available.

The purpose of the field test was to assess the effectiveness of the ILRI in assisting counselors in planning services, and communicating the problems and needs of their clients to service providers.

Field testing was approached by means of a post-test only control group experimental design, and a case simulation technique and was conducted in two phases. In the first phase, ten Unit Leaders employed by the Michigan

Rehabilitation Services were selected as a panel of experts. Each member of the panel completed the ILRI on a specially constructed simulated case file and then rank ordered seven types of rehabilitation services according to the appropriateness of each service for the client represented by the case file information.

Rehabilitation counselors employed by the Michigan Rehabilitation Services participated in the second phase of field testing. Counselors were selected at random and assigned at random to one of three treatment groups. One group utilized the ILRI on the simulated case file used in Phase One. The second group analyzed the same case file information without use of any instrument. The third group utilized only an ILRI which had already been completed on the same simulated case. All three groups were asked to rank order seven types of rehabilitation services according to the appropriateness of each service for the client in the case simulation. Secondly, all counselors were asked to write referral statements reflecting the client's most important problems. Dependent measures used were the degree of agreement between counselors and experts on the services appropriate for the client in the case simulation; and the quality of the referral statements written by counselors as judged by experts.

The primary research hypotheses investigated were: counselors who used the ILRI, with or without case file

information, would have greater agreement with experts in rank ordering rehabilitation services appropriate for the case simulation, than counselors who did not use the ILRI; also counselors who used the ILRI, with or without case file information, would write better referral statements to communicate client problems in the case simulation than counselors who did not.

A univariate analysis of variance and Scheffe post hoc procedures were utilized to detect significant differences among counselor groups in their degree of agreement with experts in rank ordering services for the simulated case. Results indicated that only counselors who used the completed ILRI performed significantly better than non-users; while those actually completing the ILRI on the case file did not perform better than counselors using no instrument at all.

To explore differences in quality of referral statements written by counselors, a multivariate analysis of variance was performed. It revealed no significant differences among the three groups of counselors. Thus there was no support for the hypothesis related to the effectiveness of the ILRI in assisting communication between counselors and service providers.

Evaluation of the utility of the ILRI was determined by counselor responses to questions regarding the effectiveness of the ILRI in four areas: 64.4% of the counselors found

the ILRI useful in assisting them to identify problems; 64.5% found it useful in summarizing case information. The instrument was evaluated less favorably in its utility in helping the counselor prioritize problems (46.7% rated it useful), and its ability to assist the counselor in making decisions about client needs (40% rated it useful).

Dedicated

To Mary Ann, for her faith and inspiration

To Mae and Albert, for their selfless values

To Ed, for his unquestioning love and support

Acknowledgments

Many mentors and colleagues have contributed to the completion of this research and I am grateful for the involvement of each of them.

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Chapter I

THE PROBLEM

Introduction and Need

Throughout its 60-year history, the major mission of the federal-state rehabilitation system has been to provide a broad range of services to assist disabled persons toward gainful employment. During its evolution two philosophical principles have guided rehabilitation practice: individualism, and holism (Bitter, 1979). These concepts emphasize that each person is uniquely affected by disability and that physical and emotional reactions to disability vary greatly with the individual. Further, maximizing assets and minimizing limitations requires attention to the whole person, including personal and social factors as well as vocational factors.

As a reflection of these principles, the rehabilitation process has been organized as a highly individualized sequence of services and is of necessity interdisciplinary in nature. The critical role of the vocational rehabilitation (VR) counselor, then, is as the generalist who can assess needs, and plan and integrate the myriad of services and resources necessary for a comprehensive approach for serving the individual (Talbott, 1971).

Two major developments in the past decade have contributed toward making this role critical and complex. In 1973, the Rehabilitation Act mandated formalization of the counselor-client planning process in the Individualized Written Rehabilitation Program (IWRP). An additional provision of the Act was establishment of priority of service for the most severely disabled persons, requiring development of an order of selection on the part of state rehabilitation agencies. In these provisions the 1973 Act placed significant emphasis on planning services and determining eligibility of those most severely disabled. Both of these concerns have highlighted the need for a systematic, objective method of assessing client functioning.

A second development which has had major impact on assessment of needs and planning of the rehabilitation process, is the increasingly broad range of services which may be provided to the client. This trend culminated in the Rehabilitation Amendments of 1978 (PL 95-602) Title VII. This legislation significantly expanded the array of services which could be purchased by the counselor (e.g. peer counseling, social and recreational activities and attendant care) as well as the eligible group who could receive these services. Specifically, services could be provided to those with no immediate vocational potential, but who could benefit from services and function more independently.

The expansion of the rehabilitation program toward provision of a broader range of services to disabled persons to meet a broader range of goals has heightened the need for comprehensive case finding, service planning, and efficient resource utilization on the part of the VR counselor. As a result, the concepts and practice of functional assessment have received increasing attention over the past ten years.

Functional assessment has been defined as a method of reviewing an individual's dynamic characteristics including activities, skills, performance, environmental conditions, and needs (Granger, in press). The primary goals of functional assessment in vocational rehabilitation were identified in a recent state-of-the-art study (Indices, 1978) as: 1) identification of severely disabled persons, and 2) planning of services. More recently, interest at the federal level has been on use of functional assessment as an element in a comprehensive management information system for the State/Federal VR program (Abt Associates, Inc., 1980).

Despite the relative recency of much of the vocational rehabilitation effort, a review of literature indicates the availability of an abundance of instruments and methods to assess client functioning (Walls, Werner, Bacon, and Zone, 1977; Reagles and Butler, 1976; Esser, 1976; Crumpton et al. n.d.; Crew and Athelstan, 1980; Rehabilitation Indicators, 1980). None of these efforts, however, directly addressed the VR counselor's needs in his/her role as planner and

coordinator of services. Specifically none are designed to facilitate communication between the VR counselor and other service providers, who develop the client's total program of services. In addition, no functional assessment instrument has been developed which addresses the needs of the Independent Living rehabilitation client, i.e. the severely disabled VR client for whom vocational goals are not feasible. Need for such an instrument has been identified (Abt, 1980).

Having identified this gap in current research, the Research and Training Center at the University of Wisconsin-Stout has had an ongoing research grant to develop an inventory to facilitate planning and communication among rehabilitation service providers (Rehabilitation Research and Training Center, Progress Report Number Nine, 1981). Identified as the Client Referral Inventory (Menz and Dunn, 1976; Menz, 1981) it is intended to assess the behavioral domains of personal-social development, vocational development, and capacities for independent living. Designed for use by state agency counselors and rehabilitation facility service providers, it is expected to summarize knowledge about the client's functional capacities, and to assist in planning vocational evaluation and work adjustment programs. The current phase of research in progress is directed toward development and refinement of items or functional

capacities, which compose the Client Referral Inventory (CRI) (Appendix A).

Purpose

It was the purpose of this effort to expand on the prior research of Menz and Dunn (1977) and Menz (1981). Specifically, an instrument was developed to assist VR counselors in inventorying client's personal-social adjustment and independent living (IL) capacities, communicate service needs to service providers, and thus improve planning and utilization of rehabilitation resources. The behavioral domains addressed in this instrument are personal-social and independent living capacities, i.e. those non-vocational dimensions encompassing psychological and social attributes of an individual, and those capacities necessary for effective integration into the larger community. The instrument was developed by means of a literature review, and a content validity study; it is identified as the Independent Living Referral Instrument (ILRI).

A second purpose of this research was to study experimentally the utility of the ILRI for VR counselors in planning services, and communicating client needs to service providers. This was accomplished by field testing the instrument on three randomly selected groups of VR counselors. One group utilized the ILRI on a simulated case file. A second group analyzed the same case file

information without use of any instrument. A third group utilized an ILRI which had already been completed on the same simulated case. All three groups were asked to rank order services as needed by the client represented in the case information. Secondly, all counselors were asked to write referral statements reflecting the client's most important problems. Differences in performance of these tasks among the three groups were analyzed.

This study has provided the groundwork for further development and testing of an instrument which will assist counselors in more adequately assessing the needs of their clients, and more clearly communicating these needs to other services providers.

Research Questions

The following research questions have been addressed by this experimental study of the ILRI.

1. Do VR counselors utilizing the ILRI select more appropriate service programs to meet the client's needs than those who do not?

2. Do counselors utilizing the ILRI develop better referral statements than those who do not?

In addition to these major questions, the ability of the ILRI to adequately summarize case file information is examined by the following question:

3. Do counselors utilizing only a completed model ILRI perform as well as counselors utilizing both the case file and ILRI, in terms of selecting appropriate service programs and developing referral statements?

Definition of Terms

Independent Living Rehabilitation: rehabilitation of a person with the purpose of encouraging maximum participation within a social environment. (Indices, 1978)

Severe Handicap: a disability that requires multiple services over time; it constitutes or results in a substantial handicap to participation in society. (Indices, 1978)

Disability: an inability to perform the roles and tasks expected of an individual within the environment including work, home, and community. (Indices, 1978)

Functional Limitation: 1) an inability to perform some life activity, 2) of relatively long duration, 3) caused by an interaction between an impairment and the environment, 4) related to one's vocational potential or one's ability to live independently. (Indices, 1978)

Referral Statement: a description of a client's problem(s) written by one rehabilitation service provider to another for the purpose of providing structure and direction in program development to meet client needs.

Overview

The following chapters present in detail the study described thus far. Chapter II incorporates relevant research and theory as it relates to the development and testing of the ILRI. The methods used to conduct the study are detailed in Chapter III including development of the instrument, selection of research participants, additional instrumentation, research questions in testable form, and the statistical models used for the data analysis. Following presentation of the methodology, Chapter IV details the analysis and interpretation of the data generated by this research. Finally, summary and conclusions are contained in Chapter V.

Chapter II

REVIEW OF THE LITERATURE

The purpose of this study was to develop and test an instrument which would inventory functional capacities necessary for personal-social adjustment, and independent living, and which would assist vocational rehabilitation counselors to plan services and communicate client needs to service providers. In keeping with this goal, a review of the literature was undertaken in these related areas: the origins of functional assessment, disability concepts and definitions, development of the concept of disability in the Vocational Rehabilitation Program, and methodological issues in instrument development. In addition, since the methodology considered for this study included the use of a simulation approach to field testing, the literature relevant to simulation techniques in education and research was also surveyed.

Origins of Functional Assessment

The concept of classifying disabled persons based on level of functioning rather than a diagnostic label, or impairment alone, began to emerge over thirty years ago. The need to classify disabled persons began with legislatively

mandated programs of services for the handicapped. These programs, Worker's Compensation, Vocational Rehabilitation, and Social Security Disability were concerned with determining eligibility. Definitions and classification systems began to evolve, in order to insure more equitable services, and evaluate the effectiveness of those services. An overview of the impact of the Worker's Compensation and Social Security Programs follows. In addition, developments in medical rehabilitation are also discussed in terms of their effect on the current state of the art of functional assessment.

Worker's Compensation. The policy and programs of Worker's Compensation laws, developed at the state level, have provided an important element in the evolution of the concept of disability (Burk, 1967). Beginning in 1911, each state developing Worker's Compensation legislation grappled with the problem of defining disability, and clarifying the concepts of physical impairment. Essentially, each state law provides a schedule of benefits based on percentage of loss due to work-related injury. In the case of partial disability, determination of the extent of injury, degree of loss, and ultimately, the benefits received depends on the judgment of individual physicians. Some state laws clearly include in the determination of what constitutes a permanent partial disability factors such as physical and mental condition, training, ability, former employment and

education of the injured employee (Burk, 1967). However, Spaulding and Erdman (1950) concluded that the measurement of functional loss basic to Worker's Compensation was grossly inaccurate and unjust, resulting in relative, non-uniform and approximate judgments. Despite such inequities, however, Worker's Compensation law originated the "earning capacity theory" to explain its obligation to the impaired workers (The National Commission on State Workmen's Compensation Laws, 1973). Under this theory, the system is obligated to restore as much of the worker's earning capacity as possible through rehabilitation, to pay his/her medical expenses, and to pay his/her earnings loss, both actual and potential.

This theory, and the Worker's Compensation program in general, provided the groundwork for development of a concept of disability linked to capacity for work. Further, the Worker's Compensation program was the first to attempt to codify or measure impact of disability in a systematic way.

Medical Rehabilitation. A second major impetus to the development of a functional assessment approach to the concept of disability was the major expansion of medical rehabilitation which occurred in the 1940's. In that period, Dr. Howard Rusk was responsible for development of medical rehabilitation care in the military health care system; and Dr. Paul Magnuson, suggested an overhaul of the

VA health care system emphasizing rehabilitation care. Further, the Rehabilitation Amendments of 1943 included restorative medical care to the services which could be provided by the state-federal Vocational Rehabilitation System (Dean, 1972). The expansion of medical rehabilitation services led to an increasing awareness that diagnostic labels were insufficient for non-physician providers of care. Clearly, the planning and provision of services for chronic conditions required a more specific assessment of capabilities and limitations imposed by disabilities. One of the more important early efforts was development of the Barthel Index developed in 1955 in the Maryland State Chronic Disease Hospital (Wylie and White, 1964). It was intended to measure patient improvement over time, and identifies ten simple activities of daily living (A.D.L.), such as eating and toileting, resulting in a score representing the patient's ability to do the task alone, with minimal assistance, or with a great deal of assistance.

Moskowitz and McCann (1957) reported an instrument based on evaluation and classification of functional capacity of the chronically ill and aging. This instrument measured six activities, usable by non-physicians, to give a gross picture of the patient's functioning.

An impetus toward the expansion of disability assessment is evident in the work of Sokolow et al (1958). This effort, developed in a medical rehabilitation setting, was

intended for a more universal application in rehabilitation agencies, and therefore included functional evaluations of a broader range of factors than had been attempted previously. These included social, psychological, and vocational factors. Results of field testing this procedure, however, in ten state Vocational Rehabilitation agencies indicated that the procedure was useful only in medical rehabilitation centers. Specifically, counselors found that while the data about physical functioning was useful; the social and vocational data generated was inadequate for their purposes (Sokolow and Taylor, 1967).

Although unsuccessful, this effort represented one of the earliest and more extensive efforts at expansion of the A.D.L., or activities of daily living concept and measurement of patients' functional abilities.

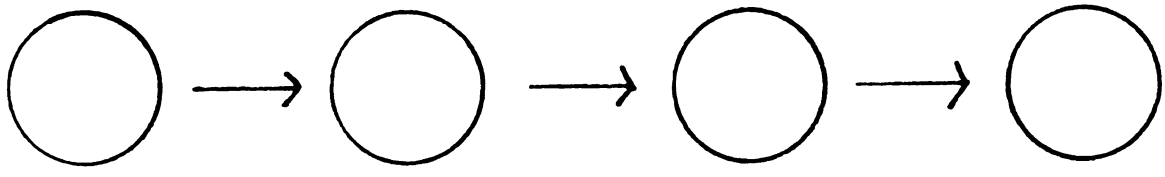
Social Security Program. Functional status measurement in rehabilitation has been impacted by a third major factor: the policies and programs of the Social Security Administration. As one of the nation's primary income maintenance programs for disabled persons, it has been concerned with the measure of severity and impact of disability. Although consideration is given to vocational factors, such as age, education, training, and work experience, the severity of the impairment and resulting functional limitations based on medical evidence, are the primary considerations in the

disability evaluation (Social Security Administration, 1965). In a major effort to identify the social and economic consequences of disability, the Social Security Administration undertook a national study of disabled adults aged 18-64 in the U.S. (Haber, 1967). The first stage of the research was to identify disabled adults by screening for health-related limitations in ability to do work, including housework. The self-assessment was contained in items addressing physical activity, personal care, and sensory limitations. The findings of the survey showed that severity of disability is directly related to the type or extent of limitation in functional capacity. Further, demographic, social and vocational factors were noted to affect the individual's evaluation of the impact of disability. Haber (1970) attempted to examine the interrelationship of functional limitations and non-medical factors, and severity of disability. He examined this issue by developing a measure of activity and capacity loss based on a variety of physical activity, mobility, and self-care limitations related to walking; manual limitations; a measure of physical activity; personal care; and mobility limitations, to create a functional limitations index. Haber's results indicated that functional limitations are a primary consideration in the evaluation of disability and suggested that functional limitations indicators could be used as guides to the evaluation of the effects of impairment and chronic conditions.

Disability Concepts and Definitions

A review of the literature revealed a great deal of confusion in the use of terms such as illness, sickness, impairment, handicap, and disability. For example, disability has been described as "more a medical condition" (Wright, 1960, p. 9), as well as "not a purely medical condition," the evaluation of which "is an administrative, not medical, responsibility and function" (Committee on Medical Rating of Physical Impairment, 1958, p. 3). Clearly the terminology used to describe disability is frequently inconsistent, and considerable confusion exists about concepts, criteria and operational definitions. However, efforts at clarifying terminology in rehabilitation have relied significantly on the work of Nagi and his conceptual model of disability (Nagi, 1975 in Whitten, 1976).

Nagi's model may be described as follows:



Pathology — Impairment — Functional Limitations — Disability

The state of active pathology involves the interruption of normal processes, and the simultaneous efforts of the

organism to restore a normal state. In current health practice, intervention may occur through surgical procedures, medication or therapy to assist the organism toward a return to equilibrium.

The concept of impairment can be defined as "a physiological, anatomical, or mental loss or other abnormality, or both (Whitten, 1976, p. 1)." By virtue of this definition, pathology always involves an impairment. However, impairment exists without active pathology as well, such as in congenital abnormalities and residual losses after active pathology is arrested or eliminated. Thus, every pathology involves an impairment but not every impairment involves pathology. Impairments also vary according to several determinants, such as the nature and degree of limitations imposed upon the organism's level of functioning, the state of underlying pathology, if any, the degree of visibility, and prognosis for recovery. Such characteristics determine the ways impairments influence the nature and degree of disability.

In Nagi's conceptualization, functional limitations are the result of impairment and the means by which impairment contributes to disability. Limitations may occur at many levels of organization within the organism, and impairment at lower levels, such as cells and tissues, may exist without any obvious functional limitation to the organism as a whole. However, the reverse is not true: discernible

functional limitations are always accompanied by impairment. Noteworthy is the fact that any functional limitation may be caused by many different types of impairment.

Nagi defined disability as "an inability or limitation in performing roles and tasks expected of an individual within a social environment (Whitten, 1976, p. 2)." Importantly, this definition places emphasis on social functioning, as it might relate to self-care, education, interpersonal relations, and employment. Clearly not all functional limitation results in disability, and the same types of impairments and functional limitations with similar degrees of severity may result in different patterns of disability, depending upon the reaction of the disabled person and the social definition of the situation. This conceptualization underscores the complexity of explaining disability and the necessity for multiple indicators in its measurement.

The evaluation and description of pathology and impairment has been the traditional domain of the medical care system. Much effort has resulted in standardized terminology and evaluation methods to describe both pathology and impairments. One of the significant efforts includes the 1980 World Health Organization publication of International Classification of Impairments, Disabilities, and Handicaps. However, as Koshel and Granger (1978) pointed out, the rehabilitation system has yet to develop

parallel standardized terminology and evaluation methods to describe functional limitations and disability. Efforts toward this end have been defined as the realm of functional assessment. This relationship between functional limitations, disability, and functional assessment has been well explored and clarified by Granger in numerous publications (Granger and Greer, 1976; Fortinsky, Granger and Seltzer, 1981). He has defined Functional Assessment (FA) as "a method of reviewing an individual's dynamic characteristics including activities, skills, performances, environmental conditions, and needs" (Granger, in press). Granger related FA operationally to the analysis of a particular set of the individual's social roles. Granger concedes these are in constant fluctuation since one's roles reflect the environment, the roles of others, and the expectations of society. Despite this changing combination of effects, Granger suggested that it is possible to compare changes in status over periods of time by assessing function at appropriate intervals to determine whether social roles have been influenced by the professional intervention of health care, rehabilitation, or psychological counseling.

In relating the concept of FA, to Nagi's model of disability, Granger further suggested that FA provides a taxonomy of functional limitations as well as abilities permitting consideration of those factors related to the quality of one's life.

Development of the Concept of Disability in the Vocational Rehabilitation Program

Legislation governing the policies of the federal-state VR system has resulted in a gradual but clear broadening of the concept of disability. In the original VR Act of 1920, the definition of disability was as follows:

> the term "person disabled" shall be construed to mean any person who by reason of a physical defect or infirmity whether congenital or acquired by accident, injury, or disease is, or may be expected to be, totally or partially incapacitated for remunerative occupation. (PL 66-236)

Clearly, the law establishing the vocational rehabilitation system of services linked the concept of disability to physical defect implying it is a purely medical entity that had vocational consequences. Rehabilitation services allowed by the law included vocational guidance, training, occupational adjustment, prostheses, and placement services. Services did not include physical restoration or socially oriented rehabilitation (Obermann, 1965).

The first major amendments to this law, the Rehabilitation Act Amendments of 1943 (PL 78-113) also significantly expanded both the concept of disability, and the array of rehabilitation services which could be provided. Specifically, persons with mental impairments (mental retardation, and mental illness), were now included

in the target group of disabled persons. Services were expanded to include physical restoration; however the orientation of the program, i.e. the goals and purposes remained vocational.

In 1973, the emphasis of the VR program was shifted considerably by the Rehabilitation Act (PL 112 of the 93rd Congress). This law intiated priority of service for severely handicapped persons. The resultant charge and challenge to the VR system was to answer operationally: who are the severely disabled? Origins for the current and growing interest in functional assessment can be traced to this legislation and its implementation. The first efforts at definition can be found in the Regulations of the Department of Health, Education, and Welfare, implementing the Rehabilitation Act of 1973. A severely handicapped person is defined as one "who has severe physical or mental disability, which seriously limits his functional capacities (mobility, communication, self-care, self-direction, or work skills) in terms of employability; whose vocational rehabilitation can be expected to require multiple... services...; and who has one or more physical or mental disabilities...determined on the basis of an evaluation of rehabilitation potential to cause comparable substantial functional limitation" (Koshel and Granger, 1978).

The definition clearly established the importance of accurate assessment of functional capacities and limitations

for the adequate provision of vocational rehabilitation services.

A second aspect of the Rehabilitation Act of 1973 impacting on the evolving concept of disability within the VR system was the Comprehensive Service Needs Study mandated by the Act. This study, conducted by the Urban Institute of Washington, D.C., investigated empirically the characteristics and needs of persons who were most severely handicapped. As part of this study 881 persons were interviewed who had been rejected by VR agencies for services because of the severity of their disabilities. These persons were classified by their disability type, the prevalent method of identification within the VR system. During the interview, an assessment of functional limitations was utilized in an effort to identify the relationship between disability type and functional limitations. The assessment utilized a modified form of the Barthel Index to evaluate performance in self-care and mobility.

The results of these interviews, published in 1975, clearly indicated that there was a minimal relationship between "disability type" and functional limitations. It provided additional evidence that the degree to which an individual is handicapped by a diagnostically labeled condition depends upon both the individual and the environment in which s/he must function (Koshel and Granger, 1978).

The concept of disability in the VR system was again reformulated by the Rehabilitation Act Amendments of 1978 (PL 602, 95th Congress). This legislation gave VR the authority to provide services to severely disabled individuals who may not have potential for employment but may benefit from services. For the first time, the definition of disability was not linked solely to functional capacities directly related to employability. Rather, a person's ability to function independently in the community could become a valid target of services. As a result, the assessment of one's limitations and abilities imposed by disability must be made not only in relation to employment, but in relation to household participation and social activity as well.

The implications of these most recent amendments have been extensively explored by Gerben De Jong (De Jong, 1979). He has identified two definitions of severe disability. One is based on a "social role" definition of disability which emphasizes the interaction of the person with the environment. The second is the definition of disability less environmentally based, based on physical functioning. This last definition focuses on the ability to move limbs, or the ability to be independent in personal hygiene, and mobility. The social role definition of disability has a large environmental component: limitations in major activity depend largely on the presence or absence of environmental

barriers; such as inaccessible housing, or work places. In De Jong's formulation of IL theory and concepts, there is a clear distinction between the traditional VR concept of disability and that imbedded in philosophy and legislation of IL. Specifically, according to De Jong, the definition of the problem of disability as utilized by VR rests with definition of physical impairment, functional limitations in ADL, and related psychological maladjustment. On the other hand, the disability problem as defined by the philosophy of IL rests with assessment of the effects of architectural barriers, economic disincentives, and adequacy of support services. The IL philosophy and legislation is clearly demanding an even more socially and environmentally oriented approach to defining disability, and assessing needs in the VR Program.

Methodological Issues in Development of FA Instruments: The Indices Study

A major research effort on the state of the art of functional assessment in vocational rehabilitation was undertaken by Indices Incorporated (1978) and funded by the Rehabilitation Services Administration. It was the first major effort to identify current issues, and future directions in the utilization of FA instruments in vocational rehabilitation. Since it was targetted especially for developers of FA instruments, its results, conclusions and

recommendations were carefully reviewed in the planning and conducting of the current study. A summary of those most pertinent findings to this study follows.

The Indices study utilized a Delphi approach to the identification of important issues, and recommendations for development of FA instruments. Two important issue areas addressed have implications for the current study. These include 1) users of FA instruments, and 2) utilization issues i.e. factors which facilitate or hinder use of FA instruments. A third area addressed by the study was development of specific recommendations for instrument developers.

In identification of users of FA instruments, the rehabilitation counselor working in conjunction with the client was seen as the most important user group. The need for instruments addressing the specific needs of the counselor were judged to be a major priority.

While FA instruments were seen as potentially useful to the counselor for many purposes, the two most important purposes were identified as 1) eligibility determination and 2) development of the rehabilitation plan (IWRP). In addition, instrumentation which was understandable or interpretable by the client; useful for helping the client gain a realistic view of his/her disability; and helpful to the counselor in organizing a comprehensive initial interview,

were all determined to be important considerations in development of an instrument targeted for counselors.

Additional user groups identified in the Delphi study included researchers, state agency personnel, and federal agency personnel, each possessing somewhat different needs. Researchers, would be interested primarily in FA instruments which would result in information usable as dependent variables in studies of impact of rehabilitation practices. State and federal agency personnel, on the other hand, would utilize FA information toward program planning, development and evaluation.

Another potential user group identified in the Delphi study was trainers/educators, and secondary service providers. Trainers/educators might utilize an instrument for helping trainees in rehabilitation practice, to identify client needs and match these with available services. Secondary service providers in rehabilitation, or training facilities, might also utilize FA instruments to identify client needs in development of specific service programs.

Clearly, the results of the Delphi study indicated that developers of FA instruments should be aware of a specific user group and its specific needs, before undertaking an instrument development project.

A second major issue examined by the Delphi study was the identification of methods of facilitation as well as

barriers to utilization of FA instruments. Methods of facilitating use of FA instruments included:

> incorporating the use of FA instruments in rehabilitation education and training curriculum
>
> use of technical assistance teams to assist state agencies, and facilities to implement FA instruments and concepts
>
> funding of demonstration projects
>
> use of seminars/conferences to disseminate information
>
> lobbying for and supporting legislation for the concept of disability based on functional limitations

The barriers to utilization of FA instruments were also identified, and included the following counselor concerns:

> fear of increased work load
>
> fear of accountability
>
> suspicion related to any new method or technique
>
> fear that any failures or inadequacies will be discovered and exposed
>
> possible lack of proper training in use of scales
>
> fear of depersonalization of the counseling process (p. II-18)

The methods of facilitating FA instrument use, and especially identification of barriers represent important information for instrument developers. The barriers identified would appear especially worthy of consideration in field test procedures of any new instrument.

A third important research goal of the Indices Delphi study was the development of recommendations to developers

of functional limitations instruments. These final recommendations were listed as:

1. Define the specific use of the instrument before development.
2. Review the results of the Indices Delphi study.
3. Include users as part of the development process.
4. If the scale is to be used with all disability groups, insure adequate responsiveness to the needs of all groups (especially needed is attention to assessing the non-physically handicapped).
5. Undertake extensive field testing to insure the utility of the instrument.
6. Plan utilization efforts.
7. Develop training techniques.
8. Coordinate efforts with other developers.
9. Explore the utility of unobtrusive measures, and self-report items in FA instruments.
10. Determine the most important factors for inclusion in the instrument.
11. Design the instrument so as to be easily assimilated within the rehabilitation process (p. II-24).

Simulation Techniques in Education and Research

A simulation is an instructional method which emphasizes an action approach to learning. It consists of two basic ideas: (1) gaming, and (2) the incorporation of models that represent reality in some form (Alexander et al, 1978). Gaming is an activity in which people agree to

follow a set of conditions or constraints and attempt to reach a particular objective. In contrast to a sport, however, instructional simulation is designed primarily to teach. Simulations are also models or representations of some physical or social phenomena in the real world. Inclusion of such a model is meant to permit the learner to try out various kinds of activities in a relatively controlled situation, protected from the risk of real life consequences.

Evidence of the popularity and utility of simulation techniques abounds in business, social sciences and education (Taylor and Walford, 1974). The major advantage in utilizing such techniques is the heightened motivation generally reported on the part of the learner. More empirical efforts at evaluating the utility of simulation in education have also been reported. Taylor and Walford (1974) reported that some but not all studies show significant improvement in the learning of facts and concepts. They also identified a need for more research in the overall effectiveness of use of simulations.

In the field of counselor education, simulation techniques have also been examined. A study by Stone (1975) examined the effect of simulation methods in a program to teach a specific counselor verbal skill. His results indicated that methods of training which were high fidelity simulations or close to "real life" situations were more

effective than low fidelity procedures. He concluded that motivation and vicarious stimulation are heightened in simulations and thus are effective as instructional strategies.

Menz (1980) successfully utilized a simulation of case processing with vocational rehabilitation counselors. The purpose of the project was to study counselor decision-making with respect to eligibility determination and planning of services for vocational rehabilitation clients. In this study, counselors were asked to review and evaluate diagnostic information on one simulated client case. Counselors were asked to consider the client represented in the case materials as if he/she were a "live client." Evaluation of the simulation activity by the counselors involved indicated it successfully approximated the "real life" situation in terms of reported degree of involvement, maintenance of interest in the process, and similarity to behavior in real practice.

In summary, while the literature on use of simulation as research methodology is minimal, there is some evidence that use of simulated case files in vocational rehabilitation research can be successfully utilized.

Summary and Implications

Literature in the fields of medical rehabilitation and vocational rehabilitation indicates strong support for the

concept of identification of disability based on level of functioning rather than diagnostic label. Efforts at assessing level of functioning have primarily emerged from the policies and programs of Worker's Compensation, Social Security Disability Program, and the practices of medical rehabilitation. In recent years the Vocational Rehabilitation Program has encouraged developments in the area of functional assessment instrumentation largely due to its expanding, and evolving, concept of disability.

Specifically, the relationship of disability to one's ability to participate in the community, or live independently is of concern in the provision of services, as well as one's ability to work. Thus, there is increased interest in development of functional assessment instrumentation addressing not only vocational issues, but personal-social adjustment, and independent living capacities of disabled persons as well. Finally, the literature provides evidence of a need for functional assessment instruments targeted for counselors, and especially useful for planning rehabilitation services for disabled persons. It is the purpose of this research to address these major identified needs.

Chapter III

METHODOLOGY

Introductory Statement and Overview

There is an identified need for an instrument to assist VR counselors in planning services to improve clients' personal-social adjustment, and independent living (IL) capacities which is addressed by this study. The specific purpose of this effort was to develop such an instrument, and examine its utility for state agency counselors. This chapter will present methodology in two major areas: first, the development and refinement of the instrument; and secondly, experimental study of the utility of the instrument, or field testing.

The major activity described in the methodology for development of the instrument was a content validation study. Methodology for field testing was directed toward examining the utility of the ILRI in program planning, communicating client problems, as well as its ability to summarize case file information. To examine these issues the ILRI was used by a panel of ten experts on one simulated case file. Their selection and ranking of appropriate services for the case was then used as criteria for three groups of counselors participating in the second phase of

field testing. One group consisted of 19 counselors who completed the ILRI after reviewing a simulated case file; the second group consisted of 18 counselors who reviewed a completed ILRI on the same case, without the actual case file; the third group of 16 counselors reviewed the simulated case, without use of the ILRI. All groups were asked to plan services for the client represented in the simulated case file by ranking the appropriate services, and then writing two referral statements which would clearly and specifically identify the client's problems to a service provider. The panel of experts, as well as those counselors utilizing the ILRI, were also asked to evaluate the instrument on several aspects of its usefulness.

Included in this chapter are the research hypotheses, all procedures for sample selection, collection of data, and statistical techniques used to perform the analysis, in both the development of the instrument, and its field testing.

Instrument Development

An extensive review of functional assessment instruments revealed relative agreement on the major categories of information considered necessary for client planning (Abt Associates, 1980; Indices, 1978). These include information concerning interpersonal relations and social competencies, communication skills, physical tolerance, and health status, cognitive functioning, self care, community living skills,

and mobility skills. Items related to these categories were culled from two major sources. First the instrument identified as the Client Referral Inventory, CRI, and an item pool developed at the Research and Training Center, University of Wisconsin-Stout were carefully reviewed. Additional items were identified by review of the following functional assessment instruments utilized in vocational rehabilitation: the Functional Assessment Profile (Massachusetts Rehabilitation Commission, 1980), the Functional Assessment Inventory (Crewe and Athelstan, 1978), the Preliminary Diagnostic Questionnaire (Moriarty, 1981), the Human Service Scale (Kravetz, Reagles, Butler, and Wright, 1973), Functional Capacity Areas (Knoxville Consortium, 1976), and Rehabilitation Indicators (1980).

Items selected from these sources were assembled and keyed to the major categories or factors on a logical basis. A total pool of 49 items was selected and combined to form the preliminary set of items for the Independent Living Referral Inventory. In addition, definitions of each of the major categories for the items were developed as follows:

Self Care/Community Living: Items in this category reflected the ability to perform tasks in caring for one's own self and one's living environment and the ability to manage one's health, safety, and daily living needs.

Interpersonal Relations and Social Skills: Items in this category reflected the ability to initiate and maintain

personal and family relationships, in a participative, supportive and responsible manner.

Communication: Itmes in this category reflected the ability to give and receive information and ideas.

Mobility: Items in this category reflected the ability to move within and between environments.

Physical Tolerance and Health Status: Items in this category reflected ability for physiological function permitting the channeling of energy into activities of daily life.

Cognitive Functioning: Items in this category reflected the ability to utilize basic intellectual skills to cope adaptively with the demands and problems of everyday living.

The format developed for the instrument was based on the Client Referral Inventory (Appendix A) and prior work of Menz (1981). It utilized a problem solving approach to assessment of the client's functioning and needs for rehabilitation services.

Content Validation Study

In order to determine whether the content of the instrument "...covers a representative sample of the behavior domain to be measured," (Anastasi, 1976, p. 134), a content validity study was undertaken. Ten expert raters were asked to review all of the 49 items of the ILRI. These

experts included four persons from Michigan Rehabilitation Services: a staff development specialist, a district office administrator, an IL staff specialist, and a VR counselor. Three persons were selected from an Independent Living Center staff, including a Center director, a Board member, and a peer resource counselor. Two experts were rehabilitation researchers, one in the area of Independent Living, the other in areas related to provision of rehabilitation services in the state rehabilitation services agency. Finally, one judge was a consumer advocate, and board member for a national consumer group.

Each item of the ILRI was typed on an index card and given to raters with written instructions for the activity (Appendix B). Experts were asked to sort each item according to the category it appeared to represent; and rate each item as either a good item, a modifiable item, a redundant item, or a bad item. Finally judges were asked for suggestions as to modifications, or additional items which should be added.

Based on this data collected from the judges, items were rewritten, eliminated, or added using the following criteria for item quality:

1. Items judged "good" by at least 5 judges were kept intact.

2. Items judged "bad" by 5 judges or more were eliminated.

3. Items judged modifiable were reworked.

The results of the content validity study were as follows:

1. Forty-seven items were judged "good" by at least six of ten judges.

2. One item was eliminated.

3. One item was modified.

When the content validity study was completed the ILRI consisted of 48 items. Appendix C contains the ILRI which emerged after the instrument development phase.

Instrument Utility: Procedures

Since the field test phase of this study required the involvement of staff of a state VR agency, a written agreement was made with the Michigan Bureau of Vocational Rehabilitation (MRS) for participation of its staff (Appendix D). After securing this agreement the field test was carried out in two phases of activity, with two different subject populations.

Phase One: Expert Panel

The first phase of the study required the involvement of persons who were experts in the identification and planning of services for vocational rehabilitation clients. It was reasoned that utilization of such a group in the

first stage of field testing would serve two functions. First experts would provide the intitial pilot study of the ILRI. Secondly, use of the ILRI by experts on a specially constructed simulated case file, would result in criteria which could be utilized in the subsequent field testing of the instrument.

The population from which a panel of experts was drawn were Unit Leaders with the VR agency. By virtue of their job description (Appendix E) they supervise VR counselors in the implementation of standards of case quality. In their supervisory duties, then, they assist in setting casework standards for quality in case finding, planning, and provision of services. A sample of ten were selected in accord with the prior research agreement, by MRS Field Services Administration. The criteria utilized by MRS administrators in selecting Unit Leaders for participation was adequacy of productivity levels in individual district offices, and travel convenience to the Lansing area.

Activities

Upon securing agreement to participate from each of the ten members of the expert panel, this researcher travelled to meet with each member at his/her district office. During this pre-arranged meeting an orientation to the research was provided, and the expert was asked to perform the following:

1. Complete the ILRI on a simulated case file.

2. Rank order the appropriateness of the following services for the client represented by the case file: Vocational Evaluation, Personal-Social Adjustment, Work Adjustment, Medical Services, Physical Restoration, Educational Services, and Independent Living Program. Definitions of each service were provided with the inventory.

3. Evaluate the utility of the ILRI by completing an Evaluation Sheet (Appendix F).

4. Provide descriptive data by completion of a demographic data form (Appendix G).

Written instructions were provided to experts for completion of the entire process (Appendix H).

The simulated case file used for the study was adapted from a simulated case file developed by Menz (1980) and utilized in the study discussed in Chapter II. The original case material on a client named "James Smith" was used successfully in a study on counselor decision-making. For the purposes of this study the case material was edited, and a cover sheet was prepared with the Michigan Rehabilitation Services Identification form (Appendix I). It was felt these minor changes resulted in a case file which more closely approximated the reality encountered by MRS counselors. This file was also selected because of its relevance assessment of personal-social adjustment and independent living needs. In the opinion of this researcher, the client represented required pre-vocational evaluation oriented toward adjustment to disability, transportation, and evaluation of his satisfaction with his living situation. Thus, the case seemed most suited to use of the instrument.

Outcomes: Phase One

There were two major outcomes of this activity with the expert panel. First, the rank ordering of services provided a basis for measuring the appropriateness of services prioritized for the client James Smith by counselors in later field testing. This is discussed in detail in this chapter under Field Test Instrumentation. Secondly, use of the ILRI by experts, on the same case, permitted construction of a completed "model instrument", which would accurately reflect the case file information, in the judgment of casework experts. This "model" ILRI was created by computing the mode of the responses of each of the ten judges for each item of the ILRI. This "model" was then used as one of the experimental conditions in the research design of the field test (Appendix J).

Phase Two: Field Testing

The second phase of the study to determine the utility of the ILRI consisted of a field test of its use by state agency rehabilitation counselors.

Sample Selection

In accord with the research agreement, the 210 VR counselors employed by MRS at the time of the study were sent a memorandum to inform them that this research project had been approved and that they might be contacted for

participation (Appendix K). From this population of 210 counselors, 74 were randomly selected, contacted by phone, and agreement to participate was secured. Upon agreement, the counselor's home address was requested, and the next contact was made by mail to the counselor's home.

For the process of random sampling a table of random numbers was utilized (Glass and Stanley, 1970). Each of the 210 counselors was assigned a three digit number from 001 to 210. A starting point in the table of random numbers was selected by chance. Moving along the rows, single digits were grouped into 3 digit numbers. When a number above 210 appeared in the row, or if a number appeared twice, it was disregarded. The first 74 counselors thus selected and agreeing to participate, comprised the random sample.

Research Design

The 74 counselor participants were randomly assigned to one of three treatment conditions: two experimental and one control. This arrangement utilized the post test only control group design (Campbell and Stanley, 1963).

The three treatment groups were as follows:

Group 1: Twenty-five counselors received the simulated case file on James Smith and an ILRI to be completed by the counselor on that case.

Group 2: Twenty-four counselors received an ILRI which had already been completed on the client James Smith.

Group 3: Twenty-five counselors received only the simulated case file on James Smith.

All subjects were asked to perform two activities which resulted in the dependent measures for this study.

1. Rank order the appropriateness of the following services for the client James Smith represented in the simulated case file: Vocation Evaluation, Personal-Social Adjustment, Work Adjustment, Medical Services, Physical Restoration, Educational Services, and Independent Living Program.

2. Write two referral statements which clearly and specifically identify the client's problems, and which would accompany referral to the program ranked first, directing the service provider in addressing the client's needs.

The independent variable in this study was use of the ILRI by the counselor. Dependent variables consisted of: 1) degree of agreement between experts and counselors as to the appropriateness of the given services for the client represented in the simulated case file, and 2) the quality of the referral statements written by the counselor to help plan the service program ranked as most appropriate for the client.

The measure of the first dependent variable was the degree of agreement between the rank order of programs determined by counselors, and that determined by the panel of experts in Phase One of the study.

The second dependent variable was measured by ratings of the quality of referral statements as judged by the panel of experts.

Field Test Procedures

All materials were mailed to counselors at their homes. Materials consisted of appropriate combinations of the simulated case file on James Smith, an ILRI already completed on James Smith, a blank ILRI, and an Evaluation Sheet reflecting the counselors' opinions as to the utility of the ILRI. All counselors, regardless of treatment group, also received a demographic data sheet, and a stamped return envelope. Separate Instruction Sheets for each treatment group were prepared; the appropriate set of instructions were also sent to each counselor, along with a cover letter describing the project (Appendix L).

One week after the deadline for return of materials, 46 counselors had responded. A follow-up by telephone to each of the non-respondents was initiated, followed by a letter of reminder to return all materials (Appendix M). Final returns totalled 53; consisting of 19 in Group 1, 18 in Group 2, and 16 in Group 3.

A random sample of ten non-respondents were contacted by phone to determine reasons for non-response. One counselor was out indefinitely due to illness, one counselor no longer worked for MRS, and eight reported they were no

longer able to participate in the study due to time limitations.

Field Test Instrumentation

As previously described, the activities of the panel of experts provided the basis for the two primary dependent measures in this study. These activities and outcomes, i.e. the ranking of services most appropriate for the client James Smith; and, evaluation of the quality of referral statements written by counselors participating in the study, then, may be described as the instrumentation of the study, i.e. those measures used to determine the ILRI's effectiveness in assisting counselors in planning services for clients, and communicating client problems.

The procedures, rationale, and outcomes of the activities used in creation of these measures are now described.

Service Rankings. The first measure of the effectiveness of the ILRI in assisting counselors to plan services was the degree of agreement between experts and counselors in selection of services most appropriate for a specific client. The rationale for the selection of this outcome variable is as follows. By virtue of their professional responsibilities as casework supervisors, the population of experts utilized in the study set standards for quality for state agency counselors in reviewing cases, and planning for

services. It would follow therefore that degree of agreement between the collective opinion of these experts, and counselors involved in the field testing on the same case would be a useful indicator of the counselor's ability to make "good" judgments. If one could discriminate between counselors utilizing the ILRI and those who do not, on the basis of degree of agreement with experts in casework, the ILRI would appear to be useful in making counselors "more expert" in planning services for their clients.

To create a measure of the degree of agreement between counselors and experts, the rank orders of services for the client James Smith, which were collected from the ten experts in Phase One of the research, were analyzed.

A study of the inter-rater reliability among judges was undertaken by computation of the Spearman Rank Correlation Coefficient for each pair of judges for the rank order of services needed in the simulated case. Results of this analysis appear in Table 3.1

Examination of the data indicated that four experts had much higher rates of agreement than the other six. These correlations appear in Table 3.2.

Table 3.1 Correlation Coefficients for 10 Experts on Ranking of Services Needed in Case Simulation

	E1	E2	E3	E4	E5	E6	E7	E8	E9
E1									
E2	.08								
E3	.75	.40							
E4	.87	.07	.73						
E5	.55	.65	.92	.47					
E6	.42	.17	.73	.23	.72				
E7	.78	.17	.87	.63	.78	.70			
E8	.32	.20	.15	.18	.25	-.15	.33		
E9	.52	.38	.93	.50	.90	.83	.73	-.03	
E10	.15	.87	.60	.03	.82	.57	.40	.10	.68

Mean: .53

Table 3.2 Correlation Coefficients for 4 Experts in Ranking of Services Needed in Case Simulation

	E3	E5	E7
E3			
E5	.92		
E7	.87	.78	
E9	.93	.90	.73

Mean = .85

To explore for differences in characteristics between the four experts with the higher degree of agreement, and the remaining six, an analysis of demographic variables was undertaken. Results indicated that the only demographic variable which approached significance was in counseling experience ($p < .10$). The judges which agreed more closely averaged 9.8 years of counseling experience, while the remaining judges averaged 7.6 years of experience.

Following identification of these four judges, their mean ranking for each of the rehabilitation services was computed. These means were then utilized as the expression of expert opinion as to the most appropriate services for the client James Smith. Correlations between the set of rankings of each counselor and the set of mean rankings of experts was next obtained; the square of this correlation, representing variance between the experts and counselors, was the dependent measure, or degree of agreement score.

Ratings of Referral Statements. The second measure of the effectiveness of the ILRI was a rating of the quality of referral statements written by counselors who utlilized the ILRI as compared to counselors who did not. This comparison was considered reflective of the ability of the ILRI to assist counselors in communicating client problems to service providers in the form of referral statements. The rationale for this assumption is as follows. Clear and concise referral information, in the form of questions or

statements has been identified as critical to the planning and delivery of effective rehabilitation facility services (Esser, 1980). These statements are the means for the exchange of information between the state agency counselor who is the purchaser of services, and the service provider, concerning the problems and needs of the disabled client. Further, the content of referral statements are the basis for the planning and development of individualized programs to meet the client's needs. For these reasons, then, the quality of referral statements written by a counselor is an expression of that counselor's ability to communicate client problems and service needs. It would follow, therefore, that for the purposes of this study the quality of referral statements written by counselors who utilized the ILRI as compared with those written by counselors who have not used the inventory, would provide a useful measure of the utility of the ILRI to facilitate communication.

Lack of quality in referral statements has been attributed to the fact that in many cases they are "so broad as to diminish their utility in planning" (Esser, 1980, p. 2). For this reason, counselors participating in the study were given the following written instruction in writing their referrals of James Smith:

> Write two referral statements which would help the service provider attend to Mr. Smith's problems. Your statements should clearly identify specific problems in terms of level of functioning and consistency of behaviors...Now write two statements which

identify clearly and specifically, Mr. Smith's most important problems (Counselor Instruction Sheet Appendix L)

Based on these instructions provided to counselors for writing the referral statements, two scales were developed to measure their quality: a three point Likert scale of Unclear, Clear, and Very Clear; and a three point Likert scale of Not Specific, Specific, Very Specific.

Four of the ten expert panel members were selected to participate in the rating of referral statements. The four were chosen by virtue of the fact that their offices were located in close proximity to each other, and permitted their meeting with the researcher as a group for the actual rating activity. This subset was a different set of four than was utilized for developing the outcome measure for service rankings.

Scorer Reliability. In utilizing a rating scale, one should attempt to determine how much error may occur in a score due to the person(s) who did the scoring or rating (Mehrens and Lehmann, p. 100). For this reason, a scorer reliability study was undertaken to determine the degree of agreement among experts in rating the quality of referral statements. The reliability study was conducted by mail, by means of a preliminary rating exercise (Appendix N) consisting of eight referral statements composed by the researcher. The four experts were asked to rate each statement on the three point scale evaluating how clear the statement was,

and on the three point scale evaluating how specific the statement was. The scores which were then analyzed consisted of two scores for each of the eight statements as rated by each of the four experts. The percentage of responses indicating agreement between each pair of experts on the score for Clarity, and the score for Specificity for each of the referral statements are reported in Table 3.3.

Table 3.3 Percent Agreement for Experts on Clarity and Specificity Scores in Preliminary Rating Exercise

	E1	E2	E6
E1			
E2	.81		
E6	.44	.63	
E8	.81	.69	.44

Mean = .64

The resulting mean percentage is a reliability estimate, or measure of the degree of consistency with which the experts could judge the quality of referral statements.

Mehrens and Lehmann (1975) have suggested that reliability coefficients of .65 might be sufficient in measures utilized for making decisions about groups, rather than individuals. Thus, in this study the consistency with which experts judged referral statements was considered to be somewhat low, but adequate for the purposes of this research.

Referral Rating Session

A meeting was arranged with the four panel experts and the researcher for the purpose of scoring all referral statements written by the counselors in the Field Testing phase of the project.

Appendix O contains the agenda for this meeting. The session was conducted in two parts: first, a training or practice session; and second, the actual scoring of referral statements by the experts.

The training segment of the meeting consisted of a review of definitions of the criteria underlying the scales used to score statements i.e., clarity and specificity. For practice, experts were also asked to rate two statements composed by the researcher, and three drawn from the actual referral statements written by counselors.

Following the practice exercise, all four experts rated each of the 105 referral statements.

Scorer reliability estimates for statements comprising the training session, and for 105 counselor referral statements, are reported in Table 3.4. These mean percent agreement scores in Table 3.4 were obtained by the same method as had been utilized in the preliminary exercise.

Table 3.4 Percent Agreement for Experts on Clarity and Specificity Scores for all Referral Statements

I. Practice Statements n = 5		1	2	3
	1			
	2	.70		
	3	.60	.60	
Mean = .58	4	.70	.40	.60

II. Actual Statements n = 105		1	2	3
	1			
	2	.55		
	3	.67	.59	
Mean = .57	4	.58	.57	.48

Research Hypotheses

Based upon the research questions proposed in Chapter I, the following major hypotheses were investigated in this study.

1. Counselors using the ILRI will have a higher degree of agreement with experts as to the ranking of appropriate services in a case simulation, than counselors who do not use the ILRI. Confirmation of the hypothesis will support the effectiveness of the ILRI in planning services for clients.
2. Counselors using the ILRI will have significantly higher scores in ratings of the quality of their referral statements than counselors who do not use the

ILRI. Confirmation of the hypothesis will support the effectiveness of the ILRI in facilitating communication between vocational rehabilitation and other service providers.

If the preceding hypotheses are confirmed, the ability of the ILRI to adequately summarize case file information is examined by the following sub-hypotheses:

3. There will be no significant difference in degree of agreement with experts as to the ranking of appropriate services between counselors using only a completed model ILRI, and those actually completing the ILRI on a simulated case file.
4. There will be no significant difference in the quality of referral statements prepared by counselors who use only a completed model ILRI, and those actually completing the ILRI on a simulated case file.

The hypotheses identified were studied by means of the research design in Figure 3.1.

	Case File	ILRI	
Treatment I: (n = 19)	X_1	X_2	0
Treatment II: (n = 18)	X_1		0
Treatment III: (n = 16)		X_2	0

X = Experimental condition
O = Observation

Figure 3.1 Research Design: Three Treatments

Hypothesis One was tested by means of an analysis of variance (ANOVA), with the Percent Agreement score as the dependent variable. The Percent Agreement score for each counselor was determined by computing the Pearson Product Correlation Coefficient between the rank assigned to the service by the counselor and the mean rank assigned for the same service by the four experts. The resulting correlation coefficient for each counselor was then squared to obtain the measure of variability between counselor and expert.

The second hypothesis was tested by means of an analysis of variance procedure with the two referral statement scores as dependent variables. A multivariate ANOVA for each score was computed across the three groups.

The third and fourth hypotheses were analyzed by means of the Scheffe method of post-hoc analyses when significant differences were found in the preceding hypothesis tests.

An alpha level of .05 was chosen to indicate significant differences in all ANOVA and post-hoc procedures.

In addition to formal hypothesis testing, descriptive statistics were used to delineate the demographic characteristics of both the panel of experts and the counselors who participated in the study. Further, the usefulness of the ILRI as evaluated by both experts and counselors who utilized the instrument is also presented with the use of descriptive statistics.

Finally, descriptive statistics were used in an item analysis, to examine the consistency with which ILRI users responded for the same simulated case.

Summary

The ILRI was developed based on prior work of Menz (1981) and an extensive review of the literature. A content validity study utilized ten experts to insure that items included in the final instrument adequately reflected the major categories of information related to personal social adjustment and independent living.

Field testing was approached through a post-test only control group experimental design, and a case simulation technique, and was conducted in two phases. In the first phase, ten Unit Leaders from Michigan Rehabilitation Services (MRS) were selected by MRS administrators for participation in the study. This panel of experts then utilized the ILRI on a specially constructed simulated case file, modified especially for use in this study. After completing the ILRI, experts rank ordered seven types of rehabilitation services according to the appropriateness of each service for the client represented in the case file information.

Rehabilitation counselors employed by MRS participated in the second phase of field testing. Counselors were selected at random and assigned at random to one of three

treatment groups. One group utilized the ILRI on the simulated case file. The second group analyzed the same case file information without use of any instrument. The third group utilized only an ILRI which had already been completed on the same simulated case. The completed ILRI was constructed by filling in the mode of the group responses of the ten experts on each item of the instrument. All three groups were asked to rank order seven types of rehabilitation services according to the appropriateness of each service for the client. Counselors also wrote two referral statements reflecting the client's most important problems.

The dependent measures used in this study were: 1) the degree of agreement between the counselors and experts on the rank order of services appropriate in the case simulation, and 2) the quality of the referral statements written by the counselor. Reliability estimates were obtained and determined adequate for each of these measures prior to their use in the study. In addition, demographic data for all counselors and experts was obtained and an instrument evaluation form was completed by those counselors and experts using the ILRI.

The data generated were used to test the two primary research hypotheses: 1) counselors who used the ILRI, with or without case file information, would have a significantly higher degree of agreement with experts in rank ordering rehabilitation services, than counselors who do not use the

ILRI and 2) counselors using the ILRI will have significantly higher scores in ratings of the quality of their referral statements, than counselors who do not use the ILRI. The main statistical procedures utilized were univariate and multivariate analysis of variance procedures. When significance was indicated, post hoc procedures were used to explore a secondary set of hypotheses. Chapter 4 contains the results of all analyses performed.

Chapter IV

ANALYSIS OF RESULTS

Introductory Statement

An analysis of the data generated by this study will be presented in this chapter. Consistent with the purpose of the study, the analysis is presented in four sections. The first section describes the characteristics of the 53 counselors in the three treatment groups, and the 10 unit leaders composing the panel of experts. The second section contains the evaluation of the utility of the ILRI by both the counselors, and the panel of experts. A restatement of the major research hypotheses, and formal testing of these, is found in the third section. The final section is a summary of all results.

Participant Characteristics

The panel of experts consisting of ten VR unit leaders, and the 53 VR counselors assigned to the three treatment groups, were the subjects for this study. Demographic data for all of these groups is contained in Table 4.1.

T Tests and Chi square comparisons among counselors in the three treatment groups are also presented in Table 4.1. As indicated, there were no significant differences among

Table 4.1 Demographic Characteristics of Experts and Counselors by Treatment Group

Variable	Counselors (n=53)						Experts (n=10)
	Treatment I % (N)	Treatment II % (N)	Treatment III % (N)	Total % (N)	Test of Sig	P	% (N)
Sex							
Male	52.6(10)	50.0 (9)	62.5(10)	54.7(29)	x^2=	p=	80 (8)
Female	47.4 (9)	50.0 (9)	37.5 (6)	45.3(24)	.59	.75	20 (2)
Ethnic Background							
Black	10.5 (2)	22.2 (4)	-- (0)	11.3 (6)	6.43	.17	10 (1)
Chicano	-- (0)	5.6 (1)	-- (0)	1.9 (1)			-- (0)
White	89.5(17)	72.2(13)	100.0(16)	86.8(46)			90 (9)
Education: Highest Degree Completed							
BA	31.6 (6)	22.2 (4)	25.0 (4)	26.4(14)	.44	.80	-- (0)
MA	68.4(13)	77.8(14)	75.0(12)	73.6(39			100(10)
BA Major*							
Psychology	66.7 (4)	33.3 (1)	25.0 (1)	46.2 (6)	6.68	.35	--
Education	16.7 (1)	33.3 (1)	25.0 (1)	23.1 (3)			
Sociology/ Social Work	16.7 (1)	33.3 (1)	50.0 (2)	30.8 (4)			
MA Major							
Rehab. Counseling/Counseling and Guidance	100.0(13)	92.9(13)	83.3(10)	92.3(36)	3.46	.48	90 (9)
Social Work	-- (0)	7.1 (1)	8.3 (1)	5.1 (2)			-- (0)
Psychology	-- (0)	-- (0)	8.3 (1)	2.6 (1)			10 (1)

*missing data

Table 4.1 Continued

Variable	Counselors (n=53)						Experts (n=10)
	Treatment I % (N)	Treatment II % (N)	Treatment III % (N)	Total % (N)	Test of Sig	P	% (N)
Certification							
Yes	21.1 (4)	5.6 (1)	6.3 (1)	11.3 (6)	x^2=	p=	20 (2)
No	78.9(15)	94.4(17)	93.8(15)	88.7(47)	2.81	.24	80 (8)
Disability							
Yes	15.8 (3)	27.8 (5)	6.3 (1)	17.0 (9)	2.81	.24	-- (0)
No	84.2(16)	72.2(13)	93.8(15)	83.0(44)			100(10)
Member of One or More Prof. Org.							
Yes	47.4 (9)	50.0 (9)	37.5 (6)	45.3(24)	.59	.74	60 (6)
No	52.6(10)	50.0 (9)	62.5(10)	54.7(29)			40 (4)
Prof. Org. of Affiliation							
NRA	80.0 (8)	54.6 (6)	55.6 (5)	63.3(19)			60 (6)
APGA	-- (0)	9.1 (1)	11.1 (1)	6.7 (2)			10 (1)
Other	20.0 (2)	36.4 (4)	33.3 (3)	30.0 (9)			30 (3)
	$\bar{X}$ S.D.	$\bar{X}$ S.D.	$\bar{X}$ S.D.	$\bar{X}$ S.D.			$\bar{X}$ S.D.
					F=	p=	
Age	38.7 8.6	39.5 10.2	34.1 6.4	37.6 8.8	1.52	.22	36.5 5.3
Years of Counseling Experience	8.0 4.8	7.7 7.7	6.1 3.7	7.3 3.7	F= .49	p= .61	8.5 4.5

counselors across treatment groups on any demographic variables measured. This permits a characterization of the total sample of counselors participating in the study as follows.

Counselors participating in the study group were an average of 37.6 years of age. The sample consisted of somewhat more males than females (54.7% vs. 45.3%), was predominantly white (86.8%), and educated through the level of Master's degree (73.6%). Of those with a Master's degree, 92.3% had specialized in Rehabilitation Counseling, or Counseling and Guidance. As a group, counselors had an average of 7.3 years of counseling experience. A relatively small portion, 11.3%, reported holding Rehabilitation Counselor Certification, and a majority (54.7%) were not members of any professional organization, 63.3% of those affiliated reported membership in the National Rehabilitation Association, and 6.7% were members of the American Personnel and Guidance Association.

Table 4.1 also presents the same demographic information on the ten VR unit leaders which composed the panel of experts. This group was also predominantly male (80%), white (90%), were an average of 36.5 years of age, and all possessed a Master's degree. Ninety percent of them had specialized in Rehabilitation Counseling or Counseling and Guidance in their Master's programs. Most (80%) did not hold Rehabilitation Counselor Certification; while 60.4%

held membership in a professional organization. The National Rehabilitation Association was identified by 60%, and APGA by 10%, as the organization of their affiliation. As a group, experts had an average of 8.5 years of counseling experience.

Evaluation of the Utility of the ILRI

Those participants in the study who utilized the ILRI were asked to evaluate its effectiveness in assisting them in four major areas: summarizing case information, identifying client problems, prioritizing client problems, and making decisions about services needed. Each user of the ILRI evaluated the instrument on each of these factors on a seven point Likert scale with 1 indicating "not useful at all" to 7 indicating "very useful." The users of the ILRI were: counselors who completed the inventory in the case simulation (Treatment I), counselors utilizing the ILRI which had already been completed (Treatment III) and the panel of experts.

Table 4.2 indicates that 64.4% of those using the ILRI found it useful in assisting them to identify client problems; while 20% rated it as not useful.

Table 4.2 Ratings[1] by Counselors and Experts of the Utility of the ILRI in Identifying Client Problems (n = 45)

Rating	Absolute Frequency	Percent Frequency
1	3	6.7
2	4	8.9
3	2	4.4
4	7	15.6
5	20	44.4
6	6	13.3
7	3	6.7

Mean: 4.49
Mode: 5.00
Standard Deviation: 1.55

[1]7 point Likert scale 1 = not useful at all/
7 = very useful

The utility of the instrument in summarizing case information yielded a favorable evaluation by 64.5% of users, while 24.5% evaluated it as not useful (Table 4.3).

Table 4.3 Ratings[1] by Counselors and Experts of the Utility of the ILRI in Summarizing Case Information

Rating	Absolute Frequency	Percent Frequency
1	4	8.9
2	3	6.7
3	4	8.9
4	5	11.1
5	21	46.7
6	7	15.6
7	1	2.2

Mean: 4.36
Mode: 5.00
Standard Deviation: 1.54

[1]7 point Likert scale 1 = not useful at all/
7 = very useful

Responses to the question of the ILRI's usefulness in prioritizing client problems are reflected in Table 4.4. In this area 46.7% rated it useful while 26.6% rated it not useful.

Table 4.4 Ratings[1] by Counselors and Experts of the Utility of the ILRI in Prioritizing Client Problems

Rating	Absolute Frequency	Percent Frequency
1	5	11.1
2	2	4.4
3	5	11.1
4	12	26.7
5	11	24.4
6	7	15.6
7	3	6.7

Mean: 4.22
Mode: 4.00
Standard Deviation: 1.66

[1]7 point Likert scale 1 = not useful at all/
7 = very useful

Finally, concerning the instrument's utility to assist in decision making about client needs, 40% found it useful, vs. 44.4% who found it not useful (Table 4.5).

Table 4.5 Ratings[1] by Counselors and Experts of the Utility of the ILRI in Assisting in Counselor Decision Making

Rating	Absolute Frequency	Percent Frequency
1	5	11.1
2	6	13.3
3	9	20.0
4	7	15.6
5	13	28.9
6	3	6.7
7	2	4.4

Mean: 3.76
Mode: 5.00
Standard Deviation: 1.64

[1]7 point Likert scale 1 = not useful at all/
7 = very useful

In summary, evaluation of the ILRI indicated that a majority of counselors found it useful in functions of identifying problems, and summarizing information. However, in the more complex functions of prioritizing client problems, and decision-making as to client needs, less than half of the counselors found it useful.

Test of Hypotheses

Hypothesis One

> Counselors using the ILRI will have a significantly higher degree of agreement with experts as to the ranking of appropriate services in a case simulation, than counselors who do not use the ILRI.

A univariate analysis of variance was utilized to test the null hypothesis that there was no difference in the degree of agreement with experts, among counselors using the ILRI on a simulated case, those using case file information only, and those using a completed model ILRI. The dependent measure was the degree of agreement score, i.e. the square of the Pearson product moment correlation coefficient reflecting the relationship between the mean priority rankings of services as selected by experts, and the set of ranked services selected by each counselor. Table 4.6 presents the results of the analysis of the degree of Agreement score, used to explore Hypothesis One. As indicated, an overall probability of less than .01 was found permitting a rejection of the null hypothesis. This result, and an inspection of the group means in Table 4.6, suggested that differences in the dependent measure were in the direction expected, i.e. counselors who utilized the ILRI, those in Groups 1 and 3, had a higher degree of agreement with experts than those who did not use the ILRI, those in Group 2. A post-hoc analysis was performed to

examine the significance of these differences, and to test the following subhypothesis.

> If the ILRI adequately summarizes case file information, there will be no significant difference in degree of agreement scores between counselors using a completed model ILRI, and those actually completing the ILRI in a case simulation.

The Scheffe post-hoc procedure performed at a .05 alpha level, indicated that Groups 1 and 2 were not significantly different from each other, but Group 3 significantly differed from both Groups 1 and 2. These results indicated that use of the completed model ILRI by counselors resulted in a higher degree of agreement with experts as to the ranking of appropriate services in a case simulation than use of case file information alone. It appeared then, that actual completion of the ILRI was less important than having the information contained within the instrument. However, since the completed ILRI reflected the group responses of the experts, a higher degree of agreement score might have been expected. In summary, both Hypothesis One and its sub-hypothesis were not confirmed.

Table 4.6 One Way Anova - Degree of Agreement Score (r^2) by Treatment Group

Group	Number	Mean	Standard Deviation	Standard Error
ILRI and Case File	19	.40	.267	.061
Case File only	18	.33	.299	.070
Completed ILRI only	16	.66	.258	.064
TOTAL	53	.46	.306	.042

Analysis of Variance

Source	DF	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between	2	1.05	.53	6.93	.0022
Within	50	3.80	.08		
TOTAL	52	4.86			

Hypothesis Two

> Counselors using the ILRI will score significantly higher in ratings of the quality of their referral statements, than counselors who do not use the ILRI in a case simulation.

A multivariate analysis of variance was used to test the null hypothesis that there was no difference in ratings of the quality of referral statements written by counselors using the ILRI on a simulated case, those using case file information only, and those using a completed model ILRI. The dependent measure was the referral rating score for each

of the two statements written by each counselor in each group.

Table 4.7 presents descriptive statistics for the two referral statement scores for each of the three treatment groups. A multivariate technique was chosen to analyze these data on the assumption that the two scores for each counselor might be correlated.

Table 4.7 Descriptive Statistics for Two Referral Statement Scores for Three Treatment Groups

	Statement 1 (Possible Score: 8-24)				
Group	Mimimum Score	Maximum Score	Group Mean	Group Variance	Standard Deviation
ILRI and Case File n = 19	11.0	19.0	13.21	4.398	2.10
Case File only n = 18	11.0	19.0	13.55	3.085	1.76
Completed ILRI only n = 16	10.0	16.0	13.50	4.666	2.16
TOTAL n = 53	10.0	19.0	13.42	4.049	1.98

Table 4.7 Continued

Group	Statement 2 (Possible Score: 8-24) Mimimum Score	Maximum Score	Group Mean	Group Variance	Standard Deviation
ILRI and Case File	0*	15.0	12.47	11.040	3.32
Case File only	11.0	17.0	13.72	4.801	2.19
Completed ILRI only	9.0	16.0	12.94	2.996	1.73
TOTAL	9.0	17.0	13.04	6.279	2.56

*one subject omitted this statement

Table 4.8 presents F values, probabilities of occurrence, and the degrees of freedom used for the calculations. As indicated, no significant difference was found among counselors in the three treatment groups. Based on this analysis, Hypothesis Two was not confirmed.

Table 4.8 Multivariate Analysis of Variance - Two Referral Statement Scores for Three Treatment Groups

Source of Variation	D.F.	Sums of Squares	Mean Squares	F Ratio	F Probability
Referral Statement 1	2	1.27	.63	.157	.8552
Referral Statement 2	2	14.64	7.32	1.125	.3813
Error 1	50	201.60	4.03	.565	.6886
Error 2	50	325.29	6.51		

Item Analysis. An exploratory analysis of the item responses of counselors and experts who completed the ILRI on the simulated case "James Smith", was conducted. Results reflect the consistency of these responses for the same case simulation. Results are in Table A1, contained in the Appendix.

Summary of Results

1. No significant differences in demographic characteristics were found among counselors assigned to the three different treatment groups in the study.

2. Evaluation of the utility of the ILRI indicated that a majority of counselors found it useful in functions of identifying problems and summarizing information. In the more complex functions of prioritizing client problems, and decision making as to client needs, less than half of the counselors found it useful.

3. Counselors using the completed model ILRI obtained a significantly higher degree of agreement with experts than counselors who did not use the ILRI at all, and those who used the ILRI on a simulated case.

4. There were no differences between counselors using the ILRI and counselors who did not as measured by quality of their referral statements.

Chapter V

DISCUSSION

Summary

The Problem. The inadequacy of using a diagnostic label to describe the impact of disability on an individual's ability to live, and to work, has long been recognized. Social programs charged with serving disabled persons, i.e. Worker's Compensation, the Social Security Disability Program, and Vocational Rehabilitation (VR) have grappled for some time with the issue of operationalizing the concept of disability in order to identify the needs of their respective service populations. In the past ten years the field of vocational rehabilitation has paid increasing attention to the need to functionally assess the needs of disabled persons. Efforts have focused especially on defining who are the severely disabled, who must be served, and evaluation of the impact of services on the individual client served. However, only recently has there been any effort to develop instrumentation toward improving the actual process of service provision and of meeting the counselor's needs in working with the client. Specifically, the work of Menz (1981), and Menz and Dunn (1977), has had

as its goal, the development of an inventory, which would assist counselors in planning services, and communicating the needs of the client to other service providers, involved in the rehabilitation plan of the client.

The current study was an effort to extend the work of Menz, by development of an inventory which would guide the counselor through a problem solving approach to assessment of the client's functioning in personal-social adjustment and independent living. These are the non-vocational dimensions encompassing psychological and social attributes of an individual, and those capacities necessary for effective integration of the disabled person into the larger community. Development of this instrument, the Independent Living Referral Inventory (ILRI), and its field testing were the goals of this research.

Research Design. The initial focus of this project was the development of the instrument. A 49 item inventory was developed utilizing the item pool developed by Menz, and by additions made following review of functional assessment instruments currently available. Items reflected the major areas of human functioning which have been identified as essential for assessing the impact of disability with exclusion of the vocational category (Abt Associates, 1980; Indices, 1978). Categories of items included interpersonal relations and social competencies, communication skills, physical tolerance, and health status, cognitive

functioning, self-care, community living skills, and mobility skills.

A content validity study was utilized to refine the instrument and resulted in a 48 item inventory which was then field tested.

The purpose of the field test was to assess the effectiveness of the ILRI in assisting VR counselors in planning services, and communicating the problems and needs of their clients to service providers. It was expected that if the ILRI were effective in facilitating planning, counselors who used the instrument would more closely agree with expert opinion in a determination of services needed by a given client. Likewise, if the ILRI were effective in facilitating communication among service providers, counselors who used it should be able to write clearer and more specific referral statements to other service providers concerning a client's problems and needs.

Field testing was approached by means of a post-test only control group experimental design, and a case simulation technique, and was conducted in two phases. In the first phase, ten Unit Leaders employed by the Michigan Rehabilitation Services were selected as a panel of experts. Each member of the panel completed the ILRI on a specially constructed simulated case file. This simulation was designed to closely approximate detailed personal, social, medical information which a rehabilitation counselor would

typically review in the process of planning services for an individual client. After completing the ILRI experts rank ordered seven types of rehabilitation services according to the appropriateness of each service for the client represented by the case file information.

Rehabilitation counselors employed by the Michigan Rehabilitation Services participated in the second phase of field testing. Counselors were selected at random and assigned at random to one of three treatment groups. One group utilized the ILRI on the simulated case file used in Phase One. The second group analyzed the same case file information without use of any instrument. The third group utilized only an ILRI which had already been completed on the same simulated case. The completed ILRI was developed from the mode of the group responses of the panel of experts to each of the items on the instrument. All three groups were asked to rank order seven types of rehabilitation services according to the appropriateness of each service for the client in the case simulation. Secondly, all counselors were asked to write referral statements reflecting the client's most important problems. Dependent measures used were the degree of agreement between counselors and experts on the services appropriate for the client in the case simulation; and the quality of the referral statements written by counselors. Reliability estimates were obtained, and determined adequate for each of these

measures prior to their use in the study. In addition, demographic data for all counselors and experts was obtained and an Evaluation form was completed by those counselors and experts using the ILRI.

The primary research hypotheses investigated were: counselors who used the ILRI, with or without case file information, would have greater agreement with experts in rank ordering rehabilitation services appropriate for the case simulation, than counselors who did not use the ILRI; also counselors who used the ILRI, with or without case file information, would write better referral statements to communicate client problems in the case simulation than counselors who did not. Quality was evaluated by ratings on the clarity and specificity of the statements. Dependent on the outcome of the preceding hypotheses, a secondary set of hypotheses was explored, i.e. if the ILRI adequately summarized case file information, counselors who completed an ILRI on the case simulation, and counselors who used only an already completed instrument without the actual case file, would perform equally as well on the two dependent measures described above.

Results. A univariate analysis of variance was utilized to detect significant differences among counselor groups in their degree of agreement with experts in rank ordering services for the simulated case. Since significant differences were found at the .05 level, a Scheffe post hoc

procedure was applied to determine if the nature of the differences was as hypothesized. Results indicated the two groups who used some form of the ILRI did not perform equally well. Only counselors who used the completed ILRI performed significantly better than non-users; while those actually completing the ILRI on the case file did not perform better than counselors using no instrument at all.

To explore differences in quality of referral statements written by counselors, a multivariate analysis of variance was performed. It revealed no significant differences among the three groups of counselors. Thus there was no support for the hypothesis related to the effectiveness of the ILRI in assisting the communication between counselors and service providers.

Demographic data indicated that counselors as a group were 37.6 years of age; were predominantly white (86.8%), and educated through the level of Master's degree. Of these, over 92% specialized in Rehabilitation Counseling. They had an average of 7.3 years of experience as counselors; tended not to belong to professional organizations (54.7%) and generally did not hold Rehabilitation Counselor Certification (88.7%).

In comparison, the panel of experts were an average of 36.5 years old, predominantly male (80%), white (90%). All possessed a Master's degree, with 90% of them specializing in Rehabilitation Counseling. Experts were somewhat more

likely than counselors proportionately to hold Rehabilitation Counselor Certification (20% vs. 11.3%) and belong to professional organizations (60.4% vs. 45.3%).

Evaluation of the utility of the ILRI was determined by counselors' and experts' responses to questions regarding the effectiveness of the ILRI in four areas: 64.4% of the counselors found the ILRI useful in assisting them to identify problems; 64.5% found it useful in summarizing case information. The instrument was evaluated less favorably in its utility in helping the counselor prioritize problems (46.7% rated it useful), and its ability to assist the counselor in making decisions about client needs (40% rated it useful).

Discussion of Results

The major hypotheses which were the focus of this study were not confirmed. The dependent measures utilized did not detect differences among users and non-users of the ILRI. Since these measures were selected to reflect a counselor's ability to plan services and communicate client needs each can be examined for its relationship to the effectiveness of the ILRI.

In the hypothesis testing related to quality of referral statements, several issues merit exploration. The first issue is the low scores obtained on the measure of referral statement quality.

Scores for each statement were obtained by adding the four experts' rating between 1 and 3 on clarity, and the rating between 1 and 3 on specificity for each referral statement. This resulted in a possible range of scores on each statement between 8 and 24 points reflecting the best (high score) and worst (low score) statements. The group means for each group on each referral statement were generally low and consistent across groups. One possible inference is that according to standards applied in this study, counselors did not write referral statements of high quality. This suggests that counselors may not possess adequate skills in this aspect of casework and training in basic guidelines for the writing of referral statements might be indicated. In current practice, there are no uniform standards for the communication exchange that is the referral process. However, the use of behaviorally anchored descriptions of the client's problems and goals have a logical application in improving the information exchange among service providers. Basic concepts exemplified by Mager (1972) emphasized the necessity for goal setting in behavioral, objective terms, and have for some time been applied to rehabilitation services such as vocational evaluation and work adjustment. The same behavioral concepts have an obvious application to the preparation of referral statements which is, in essence, an activity designed to assist service providers in setting goals.

Training in a standardized approach to making written referrals could be an important method of improving the performance of counselors in this referral activity.

The poor performance of counselors in this study in writing referral statements, can also be examined in light of the demographic characteristics of the sample. Counselors as a group were highly experienced, averaging over seven years of experience, and highly educated, with 74% educated through the Master's level, predominantly with counseling majors. Both of these, experience and education, reflect importantly on professional status. Other related factors could include involvement in continuing eduation programs, attendance at professional conferences, or in-service training. Data on these factors was not collected and therefore cannot be examined. However, in two areas which are important components of professional status, affiliation with a professional organization, and rehabilitation counselor certification, counselors had very low rates of involvement. This lack of professional orientation on the part of counselors may well be related to quality of performance variables.

The question concerning the relationship of competence and professional orientation is an important one now. Rehabilitation Counselor Certification has contributed importantly to establishment of the professional status of the field. It is timely that the relationship between

ability to perform, and professional status factors receive more systematic attention. Research in this area is clearly warranted.

The above line of thought follows from one interpretation of the data, i.e. that low referral statement scores reflect negatively on counselors' ability to write them. Other conclusions however are possible. For example, it is possible that the case file utilized in this study was more complex, or atypical, or more difficult than that usually encountered by counselors and therefore contributed to lower quality of referral statement scores. Different case simulations might bring different results; additional research is needed to examine the impact of type of case simulation on counselor performance, and overall utility of the ILRI.

An additional issue related to the adequacy of referral statement scores as an outcome measure centers around the reliability of the measure. Specifically, referral statement scores may not be "true" scores of counselors' ability. Inaccuracies might be present due to the measure utilized. The consistency with which experts rated actual statements was not high (57% mean agreement). Given that the experts who rated the statements were a relatively small group (n = 4), it is surprising that there was not greater agreement among them as to final scores of quality. One might conclude that the clarity and specificity scales were

insufficient to assist the experts in anchoring their judgments. Additional criteria might have been necessary to more accurately reflect the components of a "good" vs. "bad" referral statements, and guide experts into more accurate, discriminative evaluations. For example, the degree to which statements are behaviorally stated might be another criteria.

The results of this study also warrant an examination of the rationale for use of referral statement quality as an outcome measure.

The rehabilitation counselor has traditionally been viewed as the coordinator of services; the professional responsible for selecting the rehabilitation team needed to serve the unique constellation of problems presented by the disabled client.

The referral process is the means by which this team is created. In the federal-state system, the VR counselor typically initiates communication with another service provider in this process. The client's problems are identified, unanswered questions are raised, or goals for behavior change are identified by the VR counselor in written form and addressed to the service provider.

The essence of this process, i.e. communication among different types of rehabilitation professionals has long been identified as problematic (Bitter, 1979; Schindele, 1979). Any informal discussion with VR counselors will

attest to problems and complaints that service providers often overlook specific needs for information about clients, provide standardized rather than individualized treatment programs, or completely overlook a problem already identified. Service providers, such as vocational evaluators, or work adjustment specialists, counter that state agency counselors often fail to provide specific information about the client's needs, or specific questions to be answered by services, or specific outcomes desired as a result of services. Without such information, argue the service providers, programs can not be adequately individualized.

Failures in communication between VR counselors and service providers could ostensibly be quite costly, in terms of both ineffective service outcomes, and inefficient use of case service dollars. In this context, then, referral statement quality would appear to be an important aspect of provision of quality services. However, this last assumption may be a widely accepted case practice "truism" which may be highly questionable. It is quite possible that the quality of services provided to a client has much more to do with factors such as the type of facility, or effectiveness of staff, or the point in the rehabilitation process when the referrral is made, than the nature of the communication between counselor and provider. Factors necessary for an effective referral process and their relationship to the

provision of quality services clearly warrant more research attention.

In conclusion, there are some doubts as to the relevance and effectiveness of referral statement quality as a suitable outcome variable in evaluating the effectiveness of the ILRI.

The second major avenue of inquiry used in the study through hypothesis testing was whether use of the ILRI improved the counselor's ability to plan services. The measure used was the degree of agreement of counselors with experts as to the selection of services appropriate in the simulated case. The mixed results obtained warrant some discussion. It was expected that both groups using the ILRI, i.e. the one which used the ILRI on the simulated case file, and the second group which had access only to a completed ILRI, would more closely approximate the judgments of experts, than the control group or non-users of the instrument. However, only the group utilizing the completed ILRI performed significantly better than the control. Several explanations could account for this result. First, it is possible that the process of actually filling out the instrument contributes little to helping a counselor plan services for a client. Rather, it is the information contained in the instrument which actually affects the planning process. However, an alternative explanation for this result is possible due to the research methodology utilized. Since

the model ILRI was composed of the modal responses for the group of ten experts for each item, counselors in this treatment group were using an approximation of the same information used by experts. It would be expected that the item responses and the actual rank ordering of services would be related. Thus, the degree of agreement between counselors and experts in the group using the model ILRI may be spuriously high due to the nature of the outcome measure.

The overall failure of this outcome measure to demonstrate the effectiveness of the ILRI, however, warrants a closer look at the rationale for selection of the measure.

The ILRI was developed to assist the counselor in case planning: organizing diagnostic information, identifying problems, and making decisions about services needed. The assumption made is that case planning consists of amassing large amounts of diagnostic information, with the counselor decision making occuring at the end of the information finding phase. However, a recent field study of state VR counselor practices (Moore and Juliano, 1982) offered a different model of counselor decision making. It was suggested that counselors plan and set goals with clients utilizing a serial hypotheses testing model. Information is gathered incrementally, to confirm or reject the counselor's professional opinion of the client's most important problems and service needs. Thus, some problems may be identified, additional information needed, some services provided, in an ongoing process. Planning and service provision then, may

be a continuous process of decision making with the counselor and client involved.

If this model of decision making is an accurate conception of the case planning process, it is not surprising that the majority of counselors did not find the ILRI useful in making decisions about client needs. It also suggests that the outcome measure utilized may have been unsuitable and unrealistic. Counselors may more realistically consider a smaller choice of services at successive points in the case planning process, rather than all possible services at the "end" of this process, as assumed in the design of this research.

It is impossible to say with absolute certainty why the study failed to find significant differences among treatment groups as hypothesized. In addition to the problems with dependent measures discussed previously, methodological problems may also be a factor and must be considered. The following problems would all contribute toward minimizing the effectiveness of the ILRI in the field test as conducted.

One issue is the fact that the field test with counselors was conducted by mail. Thus counselors were introduced to a new instrument by means of written instructions presenting its purpose and method for use. In addition, the research design utilized a single case simulation, presenting counselors only one opportunity to use the instrument.

Both of these factors may have resulted in less than optimal conditions for determining the effectiveness of the

instrument. As pointed out in the Indices study (1978) counselors tend to be suspicious of new techniques in assessment, being fearful of an increased work load which might result. Thus it is possible that counselor resistence to new techniques, and limited exposure to this new instrument, may have minimized the impact of use of the instrument.

A final methodological issue worthy of note is sample size used in the study. If the ILRI has a weak treatment effect, the number of counselors participating in the study may have been insufficient to detect differences.

In addition to formal hypothesis testing, the effectiveness of the ILRI is reflected in the results of the instrument evaluation completed by the experts and counselors using the instrument in the study. The largest proportion of users rated it useful for identifying problems, and summarizing case information. Less than half of the same group thought it useful in prioritizing problems and actual decision-making about the client. When these areas are viewed hierarchically, from less to more complex functions performed by counselors, it is apparent that the ILRI was judged helpful in the lower order activities. These results further imply that the ILRI is most useful in those activities occuring earliest in the case planning process. These are also the least cognitively complex of the ILRI functions evaluated. It is not surprising then, that in open ended comments requested from users in this study, the most frequently cited potential use of the ILRI suggested

was as a training tool for new counselors. This may be the most viable direction for its future development.

Implications for Future Research

The importance of this study is directly related to its ability to point toward fruitful directions for the continued development of the ILRI. To this end, several approaches to future studies are suggested by the results of this effort.

The lack of significant findings in hypothesis testing suggests that the outcome measures used may not have been effective in accurately evaluating the ILRI. Thus, in terms of instrumentation, the outcome measure for determining the effectiveness of the ILRI might be modified and made more precise in future studies. Use of referral statement ratings by experts would require a more extensive set of criteria for judging quality in order to increase the likelihood of detecting differences among users and non-users. For example, the two statements used in this study to reflect improved communication skills may well have been too narrow a sample to detect differences in communication skills of counselors. Several such samples might have been a better basis for comparison. In addition, alternate measures of the counselor's ability to plan services and communicate effectively might also be considered.

It is possible, however, that the problem of measures is moot; the ILRI simply may not be effective in assisting the counselor to communicate client problems and make

decisions about service needs. Results of this study suggest instead, that its strength is in helping the counselor identify problems, and summarize case information. Future studies, might utilize outcome measures which could experimentally evaluate the instrument's effectiveness in these areas. Such research might build on the data from this study and examine the accuracy and consistency with which counselors identify client problems; and how this may be facilitated by the ILRI. Additional related research questions would be: does the ILRI help the counselor identify information needed in the case planning process, does it help the counselor organize the process more effectively, does it help prevent the counselor from overlooking problems and needs.

Another direction for development of the ILRI suggested by the study is shifting the target population of users from VR counselors in general, to the counselor trainee, or inexperienced counselor. Future field tests might use stratified samples of counselors of varying experience levels, to more closely examine the most effective use of the ILRI. Studies might also utilize students in rehabilitation counselor training programs, educators, newly hired VR counselors, and supervisors, all of whom would be important sources of evaluation data in development of the ILRI.

An important consideration for future field testing is the possibility that the effects of the use of the ILRI may be progressive and cumulative, and a function of degree of

use. Future efforts might increase the opportunity for use of the instrument by research participants and utilize both case simulations, and "in vivo" methodology.

Implications for Practice in Rehabilitation Counseling

The issues raised in this study attest to the complexity of developing, testing, and using functional assessment (FA) instruments. Yet the growing numbers of instruments available for functionally assessing disabled persons indicate there are increasing demands of the field for them. Largely these demands are based on the concerns of the state-federal VR agencies, and rehabilitation service providers for accountability. Thus, it is not surprising that counselors often perceive FA instruments as unnecessary paper-work, and time consuming. The relevance of many FA instruments to the provision of quality casework is often too indirect and unclear from the perspective of the counselor. Older, more experienced counselors tend to view FA instruments as a poor substitute for many years of clinical experience. However, the case planning process has become increasingly complex, and decision making on the part of the counselor is more problematic. In the current climate of shrinking case service dollars, counselors are under greater pressure to screen clients for eligibility more quickly. Case planning must more often be done with less diagnostic information than the counselors may once have utilized. In this climate, then, there is clearly a role for FA

instruments and their use will more likely continue to grow. The results of this study suggest that the ILRI can meet the need for a useful case planning instrument. Results further suggest that the ILRI would best be utilized by counselors in training. Introduction of the instrument in practicum or internship in rehabilitation counseling graduate programs would seem most appropriate for two reasons.

First, the format of the ILRI mirrors the problem-solving approach necessary for casework. Secondly, introduction of FA instruments early in training would minimize resistence, and acclimate the counselor to FA instrumentation as an integral part of the counseling process. Such an application would best utilize the strengths of the ILRI i.e. assisting the counselor in identifying problems and summarizing information.

An additional use of the ILRI suggested by the study is as a case summary instrument to be completed by counselor supervisors. Results indicate that counselors utilizing the instrument after its completion by supervisors would make more appropriate plans in selecting services. The instrument might be used in the field then, as a substitute for case file information, which would only need to be interpreted by experts.

In conclusion, the intent of this research was to examine the practical implications of a new FA instrument. Results suggest that, while continued research is warranted,

the ILRI can be of practical use even in this early stage of development.

Conclusions

It was the intent of this study to develop an instrument which would guide a VR counselor through a problem solving approach to assessment of the client's functioning in personal-social adjustment and independent living. The instrument produced validly reflected the competencies important in assessing the two domains.

In the first effort toward field testing the instrument's effectiveness in assisting the counselor to communicate client needs and to adequately plan services were closely examined. Results indicated that the effectiveness of the ILRI in both of these areas could not be demonstrated.

Results also suggested, however, that the instrument is useful in assisting the VR counselor to identify client problems and to summarize case information. Moreover, use of the ILRI as a training tool is also implied as a very viable direction for its future development.

Overall, it is suggested that the ILRI warrants continued effort towards its development as a case planning tool.

Appendices

Appendix A

Client Referral Inventory

CLIENT REFERRAL INVENTORY

Introduction

The Client Referral Inventory was designed to provide counselors and service providers with a convenient form for identifying the service needs of clients. In particular, it was designed to be used to more accurately phrase referral questions and to structure the planning of diagnostic and rehabilitative or restorative services with clients. The body of this paper deals with the orientation of the Inventory and how it is presently structured.

Domains of Functioning

The Inventory is composed of statements relating to relevant dimensions of client functioning in three significant functional domains: Independent Living, Personal Development, and Vocational Development. Each of the statements refers to a dimension of functioning and designed with the idea in mind that each could "form the content of a referral question," "identify the primary focus of an evaluative process," or "define the general parameters for a rehabilitative or restorative treatment program." Each of the statements, generally, refers to a dimension of functioning composed of an interrelated set of behaviors, attributes, attitudes, aptitudes, and/or skills, because the purpose of the instrument is to chart directions in client rehabilitation, rather than precise measurement of client functioning. For each statement, then, the counselor or service provider estimates whether the client is "capable" and what type of "service" is called for if the client is not capable or if it is not known whether the client is capable along the dimensions identified.

Independent Living. Dimensions or statements contained in this domain refer to those capacities an individual must possess to be effectively integrated into the larger community and be able to fully participate in its offerings and its responsibilities. Included in this domain are behaviors and characteristics needed to be mobil and live with a reasonable degree of independence and stability. Emphasis is placed by statements covering this domain on actual functioning, rather than on predispositions to function. Physiological, psychosocial and economic mobility are particularly stressed in this section of the Inventory.

Personal Development. The dimensions referred to by statements in this section of the Inventory relate to the psychological and social attributes of an individual. In effect, the dimensions are those which help individuals define theirself (their life-space, if you will) and their relationships with significant persons in their life, including theirself. Among the relevant functional dimensions that are the foundation of the individual's personal development are those dealing with attitudes toward own disability, concept of self as worthwhile, perceptions of how ones life is controlled or directed, fundamental

communications and social-interaction skills, strength of interpersonal relationships, knowledge of ones personal needs, interests and values, and use of others for assistance.

Vocational Development. Statements relate to those skills and characteristics which persons must have in order to obtain and maintain or advance in an occupation or vocation. As with the dimensions in Personal Development, these capacities relate to the person's life-space, but the specific life-space centering around work. Too, they include many "soft" dimensions in that they deal with perceptions and attitudes. The "harder" dimensions relating to observable skills and attributes of vocation, though, are also included here. Among the fundamental dimensions of this domain that are tapped by the Inventory are attitudes toward working, decision-making skills, job goals, work habits, awarenesses of needs, opportunities and resources to attain goals, and relationships with coworkers and supervisors.

Structure and Format of the Inventory

One of the fundamental objectives in using this instrument is to isolate what is known about the client's capability, before making decisions about what services the client needs. That is, a sound referral for evaluative information about the client's functioning or a sound referral for rehabilitative or restorative treatment should be based upon a conscientious screening of ones own understandings of the behaviors, attributes and characteristics possessed by the client which are acceptable or unacceptable. Such a screening of both clinical and substantive sources of information about the client is less likely to lead to a "shot-gun" approach to the client's rehabilitation.

Ideally, in a truly systematic referral process, one would envision identification of very specific behaviors and very accurate determination of client capability in each before any decisions for services are initiated. Also, ideally, one might envision a referral instrument on which firm decisions about capability might be accomplished in an almost "checklist" format. Could both of these ideals be accomplished, very specific referrals for information or treatment would likely follow. The number of behaviors specified in such an ideal inventory and the complexity of making determination of capability for each would stymie any practitioner, and if the inventory were used, would result in a confounding of practitioner roles.

The effective option chosen in developing this inventory was instead to go to formulating statements covering the dimensions of persons which have been traditionally considered relevant for effective social and vocational functioning and attach to these a simplified method for analyzing ones knowledge about the client's functioning and a straightforward strategy for establishing priorities of services needed. Under this option, the practitioner conducts a screening of his knowledge of about the client's functioning (first, a broad or rough screening, and

if necessary, a finer screening), decides the basic class or type of service needed (evaluative or rehabilitative), and the specific focus of that type of service (e.g., psychological evaluation, physical restoration). Use of the Inventory developed under this option should solve the problem of unmanagability of the number of items, retain the flavor of a checklist, and at the same time guide users of it to review and sort their knowledge of the client to systemmatically focus in on those dimensions of the client which are most critical if the client is to be functionally rehabilitated.

Screening of Capability. Two levels of analysis are provided for in the Inventory regarding capability of the client along each dimension: A Rough Screening and, when necessary, a Fine Screening. To fully determine whether an individual is capable with respect to any attribute, behavior, skill, etc., involves having given consideration to ones knowledge about three things: First, how well the attribute is developed or demonstrated; secondly, how appropriately or predictably it is evidenced; and if either or both of those is unacceptable, whether the necessary preconditions to developing or possessing the attribute have existed. Respectively, these considerations of capability can be labeled Quality of Functioning, Appropriatness of Functioning, and Preconditions for Functioning. For each of these, a catagorical appraisal can be reached resulting in a conclusion that the quality, appropriatness and/or preconditions are "acceptable" or "unacceptable".

Quality of Functioning deals with the question of "When the person demonstrates or reveals this attribute, how effective is the person at it or how well does the person do it?" or the question of "Is the level at which the person functions on this dimension acceptable or unacceptable?" Level of functioning, quality of an act, effectiveness of an attitude, adequacy of a performance, competence in a skill, and quality of a behavior are related phrases.

Appropriateness of Functioning deals with questions of "When the person is expected to demonstrate or reveal this attribute, how predicatably will the person demonstrate or reveal it?" or "Is the stability of the person's functioning on this dimension acceptable or unacceptable?" Regularity, consistency, appropriateness and predictability of quality of functioning are related phrases and terms.

Preconditions for Functioning deals with the needed physical and mental skills and social, cultural, educational and training experiences to effectively demonstrate or possess capability. "If quality or approriateness are not acceptable, is the person physiologically and experientially prepared to perform the function?" Consideration of preconditions is only made if quality and appropriateness are unacceptable or unknown.

Rough Screening of Capability

Acceptable (A) Quality and appropriateness of functioning along this dimension are both acceptable. No services are needed.

Not Acceptable (N) Quality and/or appropriateness of functioning along this dimension is/are not acceptable. Rehabilitative services may be needed.

Do Not Know or Uncertain (D) Lack accurate knowledge about quality and/or appropriateness of functioning along this dimension. Finer Screening should be made to isolate knowledge about quality, appropriateness and preconditions. Subsequently, evaluative services may be needed if knowledge is still insufficient to determine capability.

Fine Screening of Capability

Quality of Functioning

Acceptable (A) When the client emits, demonstrates, expresses or performs along this dimension, it is acceptable. Neither evaluative information nor rehabilitative treatment are required for quality of functioning on this dimension.

Not Acceptable (N) Performance on this dimension is unacceptable in terms of quality. Appropriateness and preconditions of functioning should be estimated. Rehabilitative services may be needed for this dimension of the client.

Do Not Know or Uncertain (D) Either have not had the opportunity to observe or no information is available about the quality of performance on this dimension. Evaluative information may be needed about quality.

Appropriateness of Functioning

Acceptable (A) The client emits, demonstrates, expresses or performs acceptably along this dimension when it is necessary. Neither evaluative information nor rehabilitative treatment are required for this dimension. The client is capable along this dimension.

Not Acceptable (N) Client is erradic or unpredicatable along this dimension. Rehabilitative services may be required to improve the consistency of functioning along this dimension and/or the quality of functioning along this dimension.

Do Not Know or Uncertain (D) Do not know whether the quality of client functioning along this dimension is predictable or do not have sufficient information to determine whether quality is consistent. Evaluative services may be neccessary.

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Preconditions for Functioning

Acceptable (A) Adequate preconditions are known to exist. Client has no impairment in the necessary physiological systems, has the necessary mental or intellectual capacities, has no limiting or uncontrolled social or psychological problems, and has had the necessary social, cultural and educational experiences which would allow development of functioning along this dimension. Rehabilitative services (physical, training, personal adjustment, or vocational adjustment) are not needed to adapt, develop or compensate the client along this dimension.

Not Acceptable (N) The cause of ineffective functioning along this dimension may be due to physiological, intellective, socio-psychological or experiential impairments or deficits. Rehabilitative services in one or more of these areas may be needed before the client will be able to effectively function along this dimension.

Do Not Know or Uncertain (D) Do not have sufficient information about the client's history to determine whether unacceptable quality and/or appropriateness of functioning along this dimension is due to impairments or deficits in the necessary areas. Evaluative information may be needed to determine whether quality and adequacy are a result of not having the necessary physiological, socio-psychological or experiential preconditions.

Service Decisions. Once screening of the client's capability has been accomplished along a dimension, one of two general classes of services may be identified as needed. The first class or type of service would include consultative specialists who provide evaluative information about the client's physiological, social, psychological, and/or vocational functioning. The second type of service includes those resources geared toward providing the necessary rehabilitative, restorative, adaptive, and/or compensatory treatment of physical, social, psychological, vocational or skill functions. Evaluative information or rehabilitative treatment along each dimension may be multiple, but selection of the optimal source (primary source) is desired at this decision point in the client's rehabilitation.

Evaluative Service (Eval) Sufficient information is lacking to determine whether the client is capable or incapable along this dimension. Focus may be on quality, adequacy and/or preconditions for functioning and the service source may be medically, psychologically, socially, or vocationally oriented.

Physiological Evaluation of Functioning (Phy) Preconditions, quality and/or appropriateness can be most efficiently determined from general or medical specialty services.

Information is most likely lacking on physiological factors involved in functioning along this dimension.

Psychological Evaluation of Functioning (Psyh) Preconditions, quality and/or appropriateness can be most effeciently determined from psychological specialty services (either psychiatric or behavioral psychological). Information is most likely lacking on attendant intellective, psychomotor, and emotional factors involved in functioning along this dimension.

Social Evaluation of Functioning (Soc) Information on the preconditions, quality and appropriateness of functioning can be most efficiently obtained from social or educational agencies and institutions.

Rehabilitative Services (Rehab) Sufficient information is available to estimate client capability along this dimension. Services needed are those focused on changing, adapting, modifying or compensating the client in some way to allow or develop effective functioning along this dimension. Focus of each type of service is on making it possible for the client to function effectively.

Physiological Rehabilitation of Functioning (Phy) Dimension is primarily physiologically based or some sort of adaptive, compensatory or controlling medical treatment is required for functioning effectively. Particularly involved are physical impairments which may undermine or limit functioning. Adaptive and restorative engineering or prosthetics, behavior controlling agents, physical therapy and other such specialized focuses may be included.

Training of Functioning (Trng) Specific skills are lacking or inadequately or inconsistently developed. Remediation, formal teaching, or practice are needed to effectively function along this dimension. Training may focus on job, educational, or independent living skill development and/or development of needed skills in these areas to allow effective functioning along other dimensions.

Personal Adjustment of Functioning (Padj) Quality and adequacy of personal and social functions is unacceptable or social and personal impairment or deficits exist which prevent effective functioning along this dimension. Rehabilitation here might include personal-social counseling, career guidance, occupational exploration, psychotherapy, social skills development, or other such behaviorally oriented treatments.

Vocational Adjustment of Functioning (Vadj) Quality and adequacy of vocational or work habits, skills, and attitudes are unacceptable or experiential deficits exist which impair the

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the likelihood of effective functioning along this dimension. Rehabilitative services geared toward improving quality and rate of production, interaction skills in vocational settings, punctuality and attendance, and vocational decision-making skills are among those focuses which might be included here.

No Services Required (None) The client is capable along this dimension or low priority is assigned to obtaining evaluative information or rehabilitative services with respect to this dimension of the client.

Recheck Appraisal of Functioning (Rchk) Client functions effectively on this dimension or low priority is assigned to seeking information or treatment for this dimension. Information or treatment of other functional dimensions may result in changes in appraisal or of capability along this dimension.

Ready for Placement (Plac) With respect to this function, client is ready for placement as rehabilitated. No further appraisal of functioning will be made of this dimension. The client's functioning along this dimension represents a principal asset. (Ultimately, when the client is rehabilitated, this option will be selected for the majority of the dimensions.)

No Services Will be Obtained (None) With respect to this dimension, no evaluative or rehabilitative service can or will be sought. Either services for this are unavailable or outside the scope of the present rehabilitation program or the dimension has an extremely low priority among the dimensions for which evaluative information or rehabilitative treatment is needed. No further appraisal of functioning will be made of this dimension.

C L I E N T R E F E R R A L I N V E N T O R Y

(Sample Statements)

Research and Training Center 22
Stout Vocational Rehabilitation Institute
University of Wisconsin - Stout
Menomonie, Wisconsin 54751

Fredrick Menz/December 1979

DIMENSIONS OF INDEPENDENT LIVING	SCREENING ROUGH	FINE Qual	FINE Pred	FINE Pcnd
Reading, writing and computing skills	D N A	D N A	D N A	D N A
Management of personal finances	D N A	D N A	D N A	D N A
Maintainance of personal physical living environment	D N A	D N A	D N A	D N A
Use of needed prosthetics, compensatory devices, and controlling drugs and medications	D N A	D N A	D N A	D N A
Knowledge and use of outlets for non-vocational interests, needs and valu values	D N A	D N A	D N A	D N A
Control of own health, weight and diet	D N A	D N A	D N A	D N A
Use of alcohol and tobacco	D N A	D N A	D N A	D N A
Knowledge and use of social, legal, medical and recreational resources	D N A	D N A	D N A	D N A
Solicitation of assistance with problems which cannot be solved independently	D N A	D N A	D N A	D N A
Relationships with significant members of opposite sex	D N A	D N A	D N A	D N A
Relationships with significant members of same sex	D N A	D N A	D N A	D N A
Use of upper and lower extremeties	D N. A	D N A	D N A	D N A
Condition of cardio-vascular system	D N A	D N A	D N A	D N A

SERVICES NEEDED					NOTES COMMENTS OR DECISIONS
TYPE	SPECIFIC FOCUS				
Eval Rehb None	Phy Phy Rchk	Psyh Trng Plac	Soc Padj None	Voc Vadj	
Eval Rehb None	Phy Phy Rchk	Psyh Trng Plac	Soc Padj None	Voc Vadj	
Eval Rehb None	Phy Phy Rchk	Psyh Trng Plac	Soc Padj None	Voc Vadj	
Eval Rehb None	Phy Phy Rchk	Psyh Trng Plac	Soc Padj None	Voc Vadj	
Eval Rehb None	Phy Phy Rchk	Psyh Trng Plac	Soc Padj None	Voc Vadj	
Eval Rehb None	Phy Phy Rchk	Psyh Trng Plac	Soc Padj None	Voc Vadj	
Eval Rehb None	Phy Phy Rchk	Psyh Trng Plac	Soc Padj None	Voc Vadj	
Eval Rehb None	Phy Phy Rchk	Psyh Trng Plac	Soc Padj None	Voc Vadj	
Eval Rehb None	Phy Phy Rchk	Psyh Trng Plac	Soc Padj None	Voc Vadj	
Eval Rehb None	Phy Phy Rchk	Psyh Trng Plac	Soc Padj None	Voc Vadj	
Eval Rehb None	Phy Phy Rchk	Psyh Trng Plac	Soc Padj None	Voc Vadj	
Eval Rehb None	Phy Phy Rchk	Psyh Trng Plac	Soc Padj None	Voc Vadj	
Eval Rehb None	Phy Phy Rchk	Psyh Trng Plac	Soc Padj None	Voc Vadj	

DIMENSION OF PERSONAL FUNCTIONING	SCREENING ROUGH	FINE Qual	FINE Pred	FINE Pcnd
Relationships with spouse, children and other family members	D N A	D N A	D N A	D N A
Relationships with other significant persons in life	D N A	D N A	D N A	D N A
Relationships with persons with disabilities	D N A	D N A	D N A	D N A
Attention given to own disability in social situations	D N A	D N A	D N A	D N A
Attention given to disabilities of others in social situations	D N A	D N A	D N A	D N A
Accommodation of own disability in social situations	D N A	D N A	D N A	D N A
Understanding and acceptance of assets and limitations resulting from own disability	D N A	D N A	D N A	D N A
Communication of own ideas as statements in social situations	D N A	D N A	D N A	D N A
Responsiveness to ideas and statements of others in social situations	D N A	D N A	D N A	D N A
Use of physically and verbally aggressive behavior toward others	D N A	D N A	D N A	D N A
Use of physically and verbally aggressive behavior toward self	D N A	D N A	D N A	D N A
Identification and resolution of inter-personal conflicts	D N A	D N A	D N A	D N A
Identification and resolution of common personal problems	D N A	D N A	D N A	D N A

SERVICES NEEDED TYPE	SPECIFIC FOCUS				NOTES COMMENTS OR DECISIONS
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		

DIMENSIONS OF VOCATIONAL FUNCTIONING	SCREENING			
	ROUGH	FINE		
		Qual	Pred	Pcnd
Knowledge of own identifiable interests, needs and values directly related to work	D N A	D N A	D N A	D N A
Knowledge of own identifiable vocational skills and abilities	D N A	D N A	D N A	D N A
Possession of at least one entry-level vocational skill for which there is vocational/career potential	D N A	D N A	D N A	D N A
Possession of at least one higher-level vocational skill for which there is vocational/career potential	D N A	D N A	D N A	D N A
Knowledges and skills for determining job and occupational requirements for which has interests and skills	D N A	D N A	D N A	D N A
Possession of short-term vocational goal(s)	D N A	D N A	D N A	D N A
Knowledge of training and skills needed to attain short-term goal(s)	D N A	D N A	D N A	D N A
Possession of long-term vocational goal(s)	D N A	D N A	D N A	D N A
Knowledge of training and skills needed to attain long-term goal(s)	D N A	D N A	D N A	D N A
Skill at identifying, planning and following through on step to attain vocational goal	D N A	D N A	D N A	D N A
Reaction to criticism and praise of work speed, quality and behaviors	D N A	D N A	D N A	D N A
Responsiveness to prescribed work and safety procedures	D N A	D N A	D N A	D N A
Interpersonal relationships with coworkers and supervisors in the work setting	D N A	D N A	D N A	D N A

SERVICES NEEDED					NOTES COMMENTS OR DECISIONS
TYPE	SPECIFIC FOCUS				
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		
Eval	Phy	Psyh	Soc	Voc	
Rehb	Phy	Trng	Padj	Vadj	
None	Rchk	Plac	None		

Appendix B

Content Validity Study Instruction Sheet

TO: Expert Panel - Content Validity Study
FROM: Valerie Ellien

The items that you are being asked to rate were developed for an instrument designed to assist VR counselors in assessing and planning for the personal-social adjustment and independent living needs of handicappers. These items form the content for the evaluation of these needs.

The major categories for the items are as follows:

Self Care/Community Living: Items in this category reflect the ability to perform tasks in caring for one's own self and one's living environment and the ability to manage one's health, safety, and daily living needs.

Interpersonal Relations and Social Skills: Items in this category relect the ability to initiate and maintain personal and family relationships, in a participative, supportive and responsible manner.

Communication: Items in this category reflect the ability to give and receive information and ideas:

Mobility: Items in this category reflect the ability to move within and between environments.

Physical Tolerance and Health Status: Items in this category reflect ability for physiological function permitting the channeling of energy into activities of daily life.

Cognitive Functioning: Items in this category reflect the ability to utilize basic intellectual skills to cope adaptively with the demands and problems of everyday living.

Please note that a category for Vocational or Employment related skills is not included in this instrument (a separate study will develop these).

You are asked to perform 2 tasks.

I. Sort each item according to the category you feel it represents. Envelopes with category titles are provided for this task. Simply insert the items into the envelopes as you sort them.

II. After all items are sorted into the six major categories (envelopes), examine the items within each category again. Rate each one according to the following criteria, and place the rating on the face of the card:

4 - A good item.	The item is a valid measure of the category.
3 - A modifiable item.	With changes in wording the item will be a valid measure of the category.
2 - A redundant item.	The item addresses a problem that was reviewed in a previous item.
1 - A bad item.	The item is not a valid measure of the category.

After all items are rated, write suggestions you may have to improve those you rated 3 - Modifiable. These suggestions may be written on the back of the item card. Blank cards are also provided for any additional items you may wish to add.
When you have finished sorting, rating, and commenting on all of the items, place the smaller envelopes containing the appropriate items into the large envelope. I will pick up all the materials by September 8th.

Thank you very much for your assistance with this project.

Appendix C

The Independent Living Referral Inventory

The RRI has been designed to help you in assessing needs, and planning programs for clients with problems in the areas of personal-social adjustment, and independent living. The inventory will guide you through the following processes: 1) identifying problems, 2) prioritizing problems i.e. selecting those most important for planning; and 3) identifying the most appropriate services for treating the problems identified.

I. Problem Identification

Review each statement listed and determine whether it presents a problem for the client, based on information available, or whether more information is needed. Select only one of the following answers:

No: if the client appears to consistently meet expectations of average functioning for work or daily living.

Yes: if the client appears to have inconsistent or below average functioning for work or daily living.

Don't Know: if there is insufficient diagnostic information.

Complete the problem identification for all statements before going on to the Priority Ratings Section.

II. Priority Ratings

Each "Yes" or "Don't Know" response represents a problem, or need for more information. Now evaluate each of these problems and information needs as to its overall importance in planning services with the client.

First, select those problems and information needs which are highest priority in developing a rehabilitation plan and rate each #1.

Then select those problems and information needs which are least important, and rate each #3.

Finally, go back and rate those of moderate importance #2.

Remember to rate each item you have identified with Yes or Don't Know response.

Complete Priority Ratings for all problems and information needs before going on to the Diagnostic or Service Program Needs Section.

III. Diagnostic or Program Needs.

For each item rated #1, check the one service program which will most appropriately assist you and the client in correcting the problem, or meeting the information need.

Definitions of each type of diagnostic or service program are on the last page of the inventory to help guide your decisions. Separate this last page and place it before you as you complete this section of the Inventory.

	Problem Identification No: Consistently meets expectations of average functioning for work or daily living. Yes: Inconsistent or below average functioning for work or daily living. Don't Know: Insufficient diagnostic information.	Priority Rating 1. High 2. Moderate 3. Low	Diagnostic Service Program Need Vocational Evaluation / Personal/Social Adjustment / Work Adjustment / Medical Services / Physical Restoration / Educational Services / Independent Living Program / Placement / Other (specify)
Communication			
1. Use of gestures, sounds and/or words to express own ideas or needs.			
2. Understanding of language, gestures and/or ideas expressed by other persons.			
Physical Tolerance--Health Status			
3. Use of upper extremities (e.g., in reaching and lifting).			
4. Use of lower extremities.			
5. Gross motor functioning (e.g., eye-limb coordination and balance).			
6. Standing tolerance.			
7. Sitting tolerance.			
8. Fine motor functioning.			
9. Overall endurance or physical stamina.			
10. Stability of medical and physical condition.			
11. Use of needed prosthetics or orthotics.			

	Problem Identification No: Consistently meets expectations of average functioning for work or daily living. Yes: Inconsistent or below average functioning for work or daily living. Don't Know: Insufficient diagnostic information.	Priority Rating 1. High 2. Moderate 3. Low	Diagnostic Service Program Need Vocational Evaluation / Personal/Social Adjustment / Work Adjustment / Medical Services / Physical Restoration / Educational Services / Independent Living Program / Placement / Other (specify)
Mobility			
12. Use of own means to travel between environments.			
13. Use of public and/or private transportation.			
14. Use of own means to move within the environment (e.g., wheelchair, walker, use of limbs).			
Cognitive Functioning			
15. Skills in reading, writing, and functional mathematics.			
16. Decision-making skills.			
17. Skills in reasoning and dealing with abstractions.			
18. Memory and recall of information.			
19. Approach to practical problems.			
20. Time management.			
21. Management of personal finances.			
22. Seeking of appropriate help with problems or situations which cannot be solved independently.			

	Problem Identification No: Consistently meets expectations of average functioning for work or daily living. Yes: Inconsistent or below average functioning for work or daily living. Don't Know: Insufficient diagnostic information.	Priority Rating 1. High 2. Moderate 3. Low	Diagnostic Service Program Need Vocational Evaluation / Personal/Social Adjustment / Work Adjustment / Medical Services / Physical Restoration / Educational Services / Independent Living Program / Placement / Other (specify)
Self Care/Community Living			
23. Personal grooming and hygiene.			
24. Control of weight; adherence to prescribed diet and exercise plan.			
25. Use of prescribed drugs and medications.			
26. Use of alcohol and tobacco.			
27. Adherence to safety precautions at home and work.			
28. Eating and drinking behavior.			
29. Housing/living arrangement.			
30. Cleaning and maintenance of living environment.			
31. Shopping for food and clothing.			
32. Planning and preparation of meals.			
33. Use of legal, daycare, and other support services in the community.			
34. Use of social benefits programs (e.g., Social Security, Workers' Compensation, Social Services).			
35. Use of community recreational services and programs.			
36. Involvement in leisure activities or hobbies.			

	Problem Identification No: Consistently meets expectations of average functioning for work or daily living. Yes: Inconsistent or below average functioning for work or daily living. Don't Know: Insufficient diagnostic information.	Priority Rating 1. High 2. Moderate 3. Low	Diagnostic Service Program Need Vocational Evaluation / Personal/Social Adjustment / Work Adjustment / Medical Services / Physical Restoration / Educational Services / Independent Living Program / Placement / Other (specify)
Interpersonal Relations and Social Skills			
37. Relationships with family members.	_____	_____	
38. Relationships with neighbors, co-workers and other casual acquaintances.	_____	_____	
39. Relationships with members of the same sex.	_____	_____	
40. Relationships with members of the opposite sex.	_____	_____	
41. Relationships with persons with disabilities.	_____	_____	
42. Use of knowledge of sexual practices and alternatives.	_____	_____	
43. Responsibility for own sexual actions.	_____	_____	
44. Response to the ideas and statements of others in social interaction.	_____	_____	
45. Response to positive statements made by others about self or behavior.	_____	_____	
46. Responds to negative or critical statements made by others about self or behavior.	_____	_____	
47. Self initiation and leadership skills.	_____	_____	
48. Acceptance of the help of others.	_____	_____	

Definitions

Vocational Evaluation: The primary focus of this program is an assessment of employability and the need for vocational services. It may also include assessment in non-vocational areas such as physical capacity, social functioning, hearing, etc. Situational tests using work samples or sub-contract work is almost always provided to clients in this program. Assessment service may be provided by Work Evaluators, Counselors, Physicians, Social Workers, and Psychologists. (Walker & Assoc., 1978)

Physical Restoration: The primary focus of this program is to assist the person to improve physical functioning. This program is always provided on an out-patient basis and is under the direction of a licensed physician. In addition to medical supervision and rehabilitation evaluation, the client can receive any of the following restorative services: Physical Therapy, Nursing, Occupational Therapy, Orthotics or Prosthetics. (Walker & Assoc., 1978)

Work Adjustment: The primary focus of services is to correct work habit deficiencies and to motivate people to work. Typical services involve counseling, work habit training, sub-contract work, job samples and work supervision. (Walker & Assoc., 1978)

Educational Services: The primary focus of services is to correct academic skill deficiencies, or develop or improve the skills of persons in specific occupations leading to employment.

Personal/Social Adjustment Services: The primary focus of services is to correct deficiencies in person/social skills which are needed for people to operate effectively in the non-vocational as well as vocational world of the client. Services may include counseling and/or skill training in interpersonal skills.

Medical Services: These are services provided by a physician in areas of diagnosing and treatment of chronic or acute illness.

I.L. Program: This is a community-based program which has substantial consumer involvement, provides directly or coordinates indirectly through referral those services necessary to assist severely disabled persons to increase self-determination and to minimize unnecessary dependence on others. Services provided include housing, attendant care, and information about goods and services relevant to I.L., transportation, peer counseling, advocacy or political action, and social recreational services. (I.L.R.U., 1978)

Placement: Services related to the finding of employment; i.e. specific to the goal of matching a given pattern of job knowledge and skills which a client has with the requirements of identifiable occupations. (Ninth Institute on Rehabilitation Services, 1971)

References: Frieden, L., et al., I.L.R.U. Source Book. Houston: Institute for Rehabilitation and Research, 1979.

Ninth Institute on Rehabilitation Services. Placement and followup in the vocational rehabilitation process. Washington, D.C.: RSA, Department of H.E.W., 1971.

Walker & Assoc., Development of a Model Federal State/Facilities Reporting System for Medical and Vocational Facilities, Vol. 1. Minnesota: Walker & Assoc., August 31, 1978.

Appendix D

Administrative Agreement

STATE OF MICHIGAN

DEPARTMENT OF EDUCATION

MICHIGAN REHABILITATION SERVICES

P.O. Box 30010
Lansing, MI 48909

PHILLIP E. RUNKEL
Superintendent
of Public Instruction

July 16, 1981

Ms. Valerie Ellien, Researcher
Michigan State University
College of Education
Department of Counseling and Educational Psychology
East Lansing, MI 48824

Dear Valerie,

I have now received approval from the Field Services Area Director for your contacting agency personnel to participate in the research project for your dissertation. I am, therefore, prepared to approve the study provided that

(1) a copy of the final study is provided to Michigan Rehabilitation Services;

(2) client confidentiality will be maintained;

(3) the limitations imposed by the Field Services Area Director are complied with; and

(4) you draft for my use a note to the affected staff about the nature of the study and what your specific need for participation is. I will mail the note to the appropriate individuals and offices using MRS letterhead.

If you agree with the terms of the approval, please indicate by affixing your signature to the space provided below and return this letter with your draft correspondence.

Sincerely,

Harry R. Smith, Supervisor
Management Services Unit

I agree with the terms of the approval as stated above.

Valerie Ellien

Valerie Ellien

Appendix E

Job Description: Unit Leaders in the Michigan Rehabilitation Services Agency

Michigan Department of Civil Service

7046607 VOCATIONAL REHABILITATION REPRESENTATIVE VII (5731111) New 9/79
(5734111)(5743111)

CLASS LEVEL DESCRIPTION

This is the lead worker level vocational rehabilitation representative performing the full range of professional vocational rehabilitation representative assignments in a specific area, utilizing the regulations, rules, policies and procedures of a specific vocational rehabilitation program. The employee oversees the work activities of other professional vocational rehabilitation representatives. General methods and procedures are available, but may not be fully applicable to overseeing human and material resources; therefore, the employee must exercise considerable independent judgment in adapting and applying these methods and procedures to specific situations. The work requires a knowledge of lead worker techniques and such personnel practices as assigning and reviewing work assignments, determining priorities and training employees.

EXAMPLES OF WORK

Coordinates work by scheduling assignments and overseeing the work of other professional vocational rehabilitation representatives.

Oversees and assures the work quantity and quality flow by directing the vocational rehabilitation representatives' strict adherence to methods and procedures.

Explains work instructions and adapts, if necessary, pertinent general methods and procedures in order to meet the required needs.

Provides rehabilitative services for clients with disabilities such as loss of hearing, blindness and sight impairment, amputations, diabetes, mental deficiency or illness and cultural handicaps.

Approves proposed vocational rehabilitation plans.

Counsels clients to bring about their vocational rehabilitation and adjustment to personal handicaps.

Evaluates the records of applicants and clients to determine level of aspiration, interest, motivation, aptitude and scholastic achievement and recommends appropriate areas of training accordingly.

Gathers pertinent educational, social, medical, psychological and vocational information relative to the clients.

Orients and counsels clients; administers and interprets tests.

Participates in job development and job placement programs; contacts prospective employeers and follows up on clients who have been placed.

Plans and arranges for special medical treatments and services.

Participates in special conferences and training sessions designed to solve problems encountered in field work.

Provides assistance to instructors in classifying information and communication for the deaf and/or blind, as necessary.

VOCATIONAL REHABILITATION REPRESENTATIVE VII

Serves as liaison between lay and professional groups concerning difficulties facing the handicapped, as necessary.

Gives speeches and prepares promotional materials.

Works with the community in establishing facilities to assist the handicapped.

Performs related work as assigned.

KNOWLEDGES, SKILLS AND ABILITIES

Considerable knowledge of the principles and methods of vocational rehabilitation counseling and training.

Considerable knowledge of the techniques of vocational counseling and guidance.

Considerable knowledge of the psychology of the physically, mentally and culturally handicapped, and the problems involved in personal adjustment to handicaps.

Considerable knowledge of testing techniques and test interpretation.

Considerable knoweldge of training and placement facilities available to the handicapped.

Considerable knowledge of occupations open to persons with a particular handicap.

Considerable knowledge of the goals and objectives of vocational guidance and rehabilitation.

Considerable knowledge of the legal and industrial relations aspects of vocational training, involving apprenticeship, hours, and conditions of labor, unemployment insurance and pensions.

Some knowledge of survey techniques.

Some knowledge of medical terminology.

Some knowledge of lead worker techniques.

Ability to organize and coordinate the vocational rehabilitation activities of a specific work area.

Ability to allocate work to other vocational rehabilitation representatives.

Ability to determine work priorities.

Ability to apply casework techniques in interviewing, obtaining and analyzing information and follow-up activities.

Ability to guide and counsel handicapped persons.

Ability to obtain the cooperation of employers, educators, physicians, and others.

VOCATIONAL REHABILITATION REPRESENTATIVE VII

Ability to work with professional and technical personnel in the area of the work being performed.

Ability to maintain records, prepare reports and conduct correspondence related to the work.

Ability to communicate with others, both verbally and in writing.

Ability to maintain favorable public relations.

EDUCATION AND EXPERIENCE

Education

Possession of a master's degree in rehabilitation counseling, guidance and counseling, special education, social work, psychology or occupational therapy.

Experience

One year of experience equivalent in responsibility to a Vocational Rehabilitation Representative VIB.

MAN/sbm

Appendix F

ILRI Evaluation Form

Evaluation

For each question, circle the number that best describes your opinion:

1. **How useful to you was the Rehabilitation Referral Inventory in summarizing case information.**

   Not Useful At all 1 2 3 4 5 6 7 Very Useful

2. **How useful to you was the Rehabilitation Referral Inventory in identifying the client's problems.**

   Not Useful At all 1 2 3 4 5 6 7 Very Useful

3. **How useful to you was the RRI in prioritizing the client's problems.**

   Not Useful At All 1 2 3 4 5 6 7 Very Useful

4. **How useful to you was the RRI in helping you reach a decision about appropriate service programs.**

   Not Useful At All 1 2 3 4 5 6 7 Very Useful

5. **Would the RRI be a helpful tool in your casework? (circle one)**

   (a) Yes
   (b) No
   (c) Uncertain

   Provide reasons for your response.

_____

_____

_____

_____

_____

_____

Appendix G

Demographic Data Form

Respondent Demographic Data Form

Please circle the number of the one appropriate response or fill in the information as requested.

1. **Name** _____

2. **District Office** _____

3. **Age** _____

4. **Sex:** **Male** ____ **Female** ____

5. **Racial/Ethnic Background**

   (a) Black (d) White
   (b) Puerto Rican (e) Other
   (c) Chicano

6. **Number of years and months of experience as a rehabilitation counselor.**

   (a) At present office _____ years _____ months
   (b) In state system _____ years _____ months
   (c) Outside of state system _____ years _____ months

7. **Education: Highest degree completed.**

   (a) Associate

   (b) Bachelor Major: _____ Date Received: _____

   (c) Master's Major: _____ Date Received: _____

   (d) Doctorate Major: _____ Date Received: _____

8. **Do you hold counselor certification?**

   (a) Yes
   (b) No

9. **Do you have a disability/characteristic?**

   (a) Yes Describe_____
   (b) No

10. **Are you a member of any professional organization(s)?**

    (a) Yes List _____
    _____

    (b) No

Appendix H

Instructions to Unit Leaders

Instructions to Unit Leaders

You are being asked to complete a three step process for your participation today in this research project. Please perform each of the following tasks in sequence.

1. Carefully read the attached case file on James Smith.

2. Complete the attached Rehabilitation Referral Inventory for the client represented by the case file information. The Inventory has been designed to help you in assessing needs, and planning programs for clients with problems in the area of personal - social adjustment. The inventory will guide you through the following processes: 1) identifying problems 2) prioritizing problems i.e. selecting those most important for planning; and 3) identifying the most appropriate services for treating the problems or obtaining diagnostic services needed. Follow carefully the instructions for completion of the the inventory.

3. After completing the entire Inventory for the client, rank each of the following diagnostic or service programs as to its appropriateness in correcting the problems identified, or meeting the information need.
Rate the one most appropriate program 1, the next most appropriate service 2, and so on in the space provided.

Vocational Evaluation	___
Personal/Social Adjustment	___
Work Adjustment	___
Medical Services	___
Physical Restoration	___
Educational Services	___
Independent Living Program	___
Placement	___
Other (specify)_____	___

Upon completion of all tasks, please place all materials in the envelope provided.

Thank you very much for your involvement and participation.

Appendix I

Simulated Case File: James Smith

BR-2910
Rev. 5/78

MICHIGAN DEPARTMENT OF EDUCATION
BUREAU OF REHABILITATION

DATE July 13, 1981

122

Please complete as much of the information as possible and bring with you for your appointment with _____

_____ date _____ time _____ at _____

PLEASE PRINT

NAME	SOCIAL SECURITY NUMBER	BIRTHDATE	PHONE
Smith, James	268-21-4438	4-27-61	432-4462

ADDRESS	CITY	COUNTY	ZIP CODE
RFD 2	Elm town	Forest	

MARITAL STATUS: SINGLE ✓ MARRIED ___ WIDOWED ___ DIVORCED ___ SEPARATED ___

MAIDEN NAME _____

MEMBERS OF HOUSEHOLD

Name	Relationship	Age	Employed at	Wage
Albert	Father	62	Farmer	
Sarah	Mother	60	Home	

WHAT MENTAL OR PHYSICAL PROBLEMS DO YOU HAVE Seizures

CAUSE OF PROBLEM(S) Head Injury in Auto Accident

ARE YOU RESTRICTED IN ANY ACTIVITIES: YES ✓ NO ___

IF SO, WHAT ARE THEY: Driving

WHO IS YOUR FAMILY DOCTOR: NAME John Tybers

ADDRESS 182 Spruce St.

DATE LAST SEEN [redacted] 2 mos ago

OTHER DOCTORS SEEN IN LAST FIVE (5) YEARS NAME Dr. Potter

ADDRESS 419 - 20 St.

NAME _____

ADDRESS _____

HAVE YOU EVER BEEN HOSPITALIZED: YES ✓ NO ___

IF YES, FOR WHAT REASON Car accident

HOSPITAL Craymore ADDRESS 724 Regent DATE (APPROX) Oct. 1980

HOSPITAL _____ ADDRESS _____ DATE (APPROX) _____

(over)

GENERAL MEDICAL EXAMINATION

RE: James Smith

1. Family History

		YES	NO
A.	Tuberculosis	___	X
B.	Heart Disease	___	X
C.	Cancer	___	X
D.	Diabetes	___	X
E.	Mental Illness	___	X

2. Patient's History

		YES	NO
A.	Rheumatic Fever	___	X
B.	Tuberculosis	___	X
C.	Diabetes	___	X
D.	Heart Disease	___	X
E.	Allergies	___	X
F.	Mental Illness	___	X

3. Operations/Injuries: Severe head injury resulting in loss of consciousness and followed by seizure activity.

4. Present Complaints: Seizure activity, anxiety

5. Physical Examination:

A. General

1. Weight: 185 lbs.
2. Height: 72"
3. Blood Pressure: 120/75
4. Pulse: 70
5. Blood Tests: Normal
6. Urinalysis: Normal

B. Abnormalities were found in:

		YES	NO
1.	Eyes	___	X
2.	Ears, Nose, Throat	___	X
3.	Respiratory	___	X
4.	Cardio-Vascular	___	X
5.	Gastro-Intestinal	___	X
6.	Genito-Urinary	___	X
7.	Muscular-Skeletal	___	X
8.	Psychiatric	___	X
9.	Neurological	X	___

6. Medication: Phenobarb, 1/2 gm, bid; Dilantin, 100 mg, qid.

7. Comments: 5B9--patient apparently has CNS damage due to accident. Evidences great concern over seizures which are not fully controlled. Has also indicated excessive drinking.

Diagnosis: Epilepsy with good regulation for last six months under medication.

Recommendations: There should be no problem with rehabilitation plan if drinking behavior does not continue to an excessive degree.

Sincerely,

J. Tybers, M.D.

RE: James Smith

The patient was referred by the vocational rehabilitation counselor for possible epileptic-type seizures resulting from a severe head injury suffered in an auto accident.

PAST HISTORY

There is no family history of neurological diseases such as M.S. or C.P. However, the patient was involved in an auto accident. Past records indicate that he was admitted to this hospital with an acute head injury. Patient was comatose with seizure-like activity of the body. Legs and left arm reacted well in response to pain. Right arm was affixed to an arm board. Patient did have a slight lower facial weakness. He remained in intensive care for one week where he improved slowly. Later he began physical and occupational therapy and he progressed to walking without assistance. His speech also steadily improved. All signs pointed to a good recovery. Patient was discharged after one month. At that time it was indicated that the patient might still have epileptic-like seizures.

PRESENT EXAMINATION

Patient is a well developed, well nourished white male. He has no apparent physical impairments. Patient has had two black-outs with loss of bladder control on first seizure. Vision good, suffers no headaches, has "on and off" appetite, and has no trouble sleeping. Patient is on medications to control his seizures at the present time. Patient indicates he does become angered very easily and quickly now. Neurological signs indicate an abnormal EEG, but other signs (Babinski, DTR's, and knee jerk reflexes) were present and appeared normal. Sensations of pain, cold, warmth, light touch and position were normal. The Romberg test was negative and the patient had a good range of motion and strength in all extremities.

DIAGNOSIS

Patient is suffering from an epileptic-type disorder, probably Jacksonian Epilepsy. He seems to be well regulated on his medication to control the seizures. He will be required to take this medication indefinitely. There may have been some personality change of this patient since his head injury. Under regulation, this patient should eventually be employable.

Very truly yours,

O. P. Potter, M.D.
Neurologist

ORTHOPEDIC REPORT

RE: James Smith

The patient was seen at the request of the vocational rehabilitation counselor for a general orthopedic examination.

PAST HISTORY

Family history indicates no history of disease, no history of congenital disease such as asteitis deformans. There were no complaints related to the skeletal system. The patient has no history of bone pain, deformity or bone infections. No joint complaints (pain, swelling, increased warmth or deformity) were elicited.

PATIENT EXAMINATION

Examination of the patient revealed a full range of motion in all joints with no pain or discomfort. A slight discrepancy in arm musculature between the right and left upper extremities was noted, however, this was within normal limits. No additional abnormalities were noted.

DIAGNOSIS

Based on the findings of this examination, it does not seem that the patient is in need of any orthopedic treatment.

Sincerely,

T. M. Avery, M.D.

PSYCHIATRIC REPORT

RE: James Smith From: T.F. Franz, M.D.

The patient was referred by the vocational rehabilitation counselor for a psychiatric examination.

BACKGROUND

A review of family history did not reveal any incidence of mental illness nor has Mr. Smith had previous episodes of mental instability. As a result of an auto accident, Mr. Smith sustained head injuries which resulted in seizure activity. He had some grand mal seizures with typical symptoms. He has had an "off and on" appetite, but doesn't seem to have any other medical complaints. The seizures are now under control through medication.

EVALUATION

The patient appeared promptly for the interview, was well dressed, and responded well to direct questions, although little information was freely volunteered. Psychiatric evaluation indicated that the patient is oriented with respect to time, place, and person. No reports of delusions, hallucinations, feelings of persecution, or excessive depression were elicited. The patient has experienced feelings of anxiety, but within normal limits and specific to stress situations. Mr. Smith states that he becomes easily and quickly angered even at the slightest provocation and indiates that he drinks more than a few beers a week. Present family relations appear to be satisfactory, but his ego strength is marginally adequate.

RECOMMENDATIONS/IMPRESSIONS

My findings seem to indicate that this client has undergone some personality changes since his accident. At the present time, this does not appear to be of a serious nature, however, if his drinking continues at the rate he states it is at the present time, he may well develop very serious personality problems. I do not feel that this client has made a very good adjustment to his disability. I do feel that if this client can find a job, this will alleviate many of the problems which are just beginning to become apparent at this time.

PSYCHOLOGICAL REPORT

RE: James Smith From: W. James, Ph.D.

Mr. Smith was referred for a psychological assessment by the vocational rehabilitation counselor.

BACKGROUND

Jim is a 20-year old, white male. He is not married, seems to have limited social contacts, and is presently unemployed. He has finished high school. Jim's present problem stems from an auto accident in which he received a severe head injury. Subsequent to the injury, he began having epileptic seizures. He states that the seizures are not completely under control through medication. His present concerns are about his injury and his future.

PSYCHOMETRIC EVALUATION

A standard test battery of the WAIS, WRAT, interest tests, and clinical interview were used to evaluate Mr. Smith's level of functioning.

The measure of IQ indicated that Mr. Smith is functioning in the average range of intelligence (F.S.=90, V=83, P=97). Range of scores on the subtests indicated that the client performance was affected by anxiety. On the academic measures, his abilities on reading were measured at the 8.6 grade level, spelling at 8.5 and arithmetic at 9.0. Vocational interests were in the areas of mechanical and maintenance positions.

In the interview situation, the client appeared quite tense and anxious. The client stated that he becomes easily and quikly angered. He also indicated that he has been drinking more since the accident and has several beers a week. In discussing his accident and his future, he appears not to have accepted his limitations in functioning imposed by his rather recent injury.

SUMMARY AND RECOMMENDATIONS

Intellectually, the client is functioning within the low average range on factors related to intelligence. His academic skills are lower than high school graduates, ranging from grade 8.5 to 9.0 Jim appears to have difficulty accepting the limitation imposed by his seizure activity. These findings indicate that the client may have problems in social and vocational adjustment.

The following recommendations are made:

1. The counselor should assist Jim to accept his disability and be aware of possible changes in his personality.

2. Psychotherapy should be considered if Jim is unable to stabilize himself.

3. Client may have the potential and the interest for further training and is especially interested in the mechanical area.

SOCIAL HISTORY

RE: James Smith From: M. Blastik, MSW

A request was received by the vocational rehabilitation counselor for a social history on Mr. Smith.

FAMILY HISTORY

Mr. Smith is a 20-year old high school graduate and has four siblings. The family lives on a dairy farm in the country with the father doing the farming. The parents are both in good physical health and have no history of medical problems. The father has an 8th grade education and the mother graduated from high school, but is not presently employed outside of the home. The client graduated from high school. He had been working when he was involved in an auto accident and sustained a head injury. He has experienced some type of seizures apparently as a result of the accident.

CURRENT SITUATION

Mr. Smith is living at home on his parents' farm. The client does not help with the farming. The client has been drinking more since the accident and has been subject to swift changes in his moods. He has lost his driver's license because of the seizure activity and it has restricted his social opportunities. He seems isolated; with minimal contacts with friends and no current dating relationship. The parents are concerned over their son, especially his lack of desire to help with the farming. The father especially has difficulty understanding why his son doesn't want to farm. Neither of the parents are overly concerned about the drinking. The client may be interested in some kind of work in the mechanical area which is related to farming, but not farming itself.

SUMMARY AND RECOMMENDATIONS

It would appear that Mr. Smith was functioning satisfactorily prior to the accident and that his family relationships were supportive. Since the accident, the client has begun to change and has not yet accepted the limitations imposed by his disability. An in-depth medical examination is recommended and vocational training in areas consistent with his physical limitations.

CASENOTE #1

RE: James Smith

James, a white male came in today for the initial interview. All forms necessary for processing his case for eligibility were filled out. The client was referred by his family physician.

Mr. Smith was involved in an automobile accident in which he suffered a severe head injury. Since the accident, he has experienced epileptic seizures and has been quite concerned over the seizures and their effect on his life. He has lost his driver's license and his job as a result of the seizures. He doesn't really know what to do at the present time, is unemployed, and living with his parents on their farm.

We discussed the eligibility criteria and possible VR services. We also talked about the kinds of jobs he might be interested in. He appeared open to suggestions and wanted to make plans.

CASENOTE #2

RE: James Smith

The client was in today and I informed him that he is eligible for services.

Prior to the interview, Jim's mother had called me and was very upset because Jim is carousing and drinking beer. She feels that there has been no improvement in Jim's behavior. She feels that my talking should be able to change his behavior. She seems disappointed because the client does not live up to her expectations and that he has not found a job or made up his mind to go to school.

Jim had requested this interview, but I am not sure exactly what his reasons were. I found it very difficult to keep him on the track of employment and school. I talked to him about his Mother's feelings and he said that he would try to improve his behavior. We talked about future vocational plans but he is undecisive.

Appendix J

Completed ILRI

Completed for:
James Smith

Rehabilitation Referral Inventory

Problem Identification

No: Consistently meets expectations of average functioning for work or daily living.
Yes: Inconsistent or below average functioning for work or daily living.
Don't Know: Insufficient diagnostic information.

Priority Rating

(Rate each "yes" or "don't know" item.)

1. High
2. Moderate
3. Low

Diagnostic Service Program Need
(Check one for each item rated #1 - High Priority.)

	Problem Identification	Priority Rating	Vocational Evaluation	Personal/Social Adjustment	Work Adjustment	Medical Services	Physical Restoration	Educational Services	Independent Living Program	Placement	Other (specify)
Communication											
1. Use of gestures, sounds and/or words to express own ideas or needs.	No										
2. Understanding of language, gestures and/or ideas expressed by other persons.	No										
Physical Tolerance--Health Status											
3. Use of upper extremities (e.g., in reaching and lifting).	No										
4. Use of lower extremities.	No										
5. Gross motor functioning (e.g., eye-limb coordination and balance).	No										
6. Standing tolerance.	No										
7. Sitting tolerance.	No										
8. Fine motor functioning.	Don't Know	1	✓								
9. Overall endurance or physical stamina.	Don't Know	1	✓								
10. Stability of medical and physical condition.	Yes	1			✓						
11. Use of needed prosthetics or orthotics.	No										

	Problem Identification No: Consistently meets expectations of average functioning for work or daily living. Yes: Inconsistent or below average functioning for work or daily living. Don't Know: Insufficient diagnostic information.	Priority Rating (Rate each yes or don't know item.) 1. High 2. Moderate 3. Low	Diagnostic Service Program Need (Check one for each item rated #1 - High Priority.)									
			Vocational Evaluation	Personal/Social Adjustment	Work Adjustment	Medical Services	Physical Restoration	Educational Services	Independent Living Program	Placement	Other (specify)
Mobility											
12. Use of own means to travel between environments.	Yes	1						✓			
13. Use of public and/or private transportation.	Don't know	1						✓			
14. Use of own means to move within the environment (e.g., wheelchair, walker, use of limbs).	No										
Cognitive Functioning											
15. Skills in reading, writing, and functional mathematics.	No										
16. Decision-making skills.	Yes	1		✓							
17. Skills in reasoning and dealing with abstractions.	Don't know	1	✓								
18. Memory and recall of information.	Don't know	1	✓								
19. Approach to practical problems.	Don't know	1	✓								
20. Time management.	Don't know	2									
21. Management of personal finances.	Don't know	2									
22. Seeking of appropriate help with problems or situations which cannot be solved independently.	Don't know	1		✓							

	Problem Identification No: Consistently meets expectations of average functioning for work or daily living. Yes: Inconsistent or below average functioning for work or daily living. Don't Know: Insufficient diagnostic information.	Priority Rating (Rate each yes or don't know item.) 1. High 2. Moderate 3. Low	Diagnostic Service Program Need (Check one for each item rated #1 - High Priority.) Vocational Evaluation / Personal/Social Adjustment / Work Adjustment / Medical Services / Physical Restoration / Educational Services / Independent Living Program / Placement / Other (specify)
Self Care/Community Living			
23. Personal grooming and hygiene.	No		
24. Control of weight; adherence to prescribed diet and exercise plan.	No		
25. Use of prescribed drugs and medications.	No		
26. Use of alcohol and tobacco.	Yes	1	✓
27. Adherence to safety precautions at home and work.	Don't know	1	✓
28. Eating and drinking behavior.	Yes	1	✓
29. Housing/living arrangement.	Yes	2	
30. Cleaning and maintenance of living environment.	Don't know	3	
31. Shopping for food and clothing.	Don't know	3	
32. Planning and preparation of meals.	Don't know	3	
33. Use of legal, daycare, and other support services in the community.	Don't know	2	
34. Use of social benefits programs (e.g., Social Security, Workers' Compensation, Social Services).	Don't know	1	✓
35. Use of community recreational services and programs.	Yes	1	✓
36. Involvement in leisure activities or hobbies.	Yes	2	

	Problem Identification No: Consistently meets expectations of average functioning for work or daily living. Yes: Inconsistent or below average functioning for work or daily living. Don't Know: Insufficient diagnostic information.	Priority Rating (Rate each yes or don't know item.) 1. High 2. Moderate 3. Low	Diagnostic Service Program Need (Check one for each item rated #1 - High Priority.)										
			Vocational Evaluation	Personal/Social Adjustment	Work Adjustment	Medical Services	Physical Restoration	Educational Services	Independent Living Program	Placement	Other (specify)
Interpersonal Relations and Social Skills												
37. Relationships with family members.	Yes	1		✓								
38. Relationships with neighbors, co-workers and other casual acquaintances.	Yes	1		✓								
39. Relationships with members of the same sex.	Don't know	2										
40. Relationships with members of the opposite sex.	Yes	1		✓								
41. Relationships with persons with disabilities.	Don't know	3										
42. Use of knowledge of sexual practices and alternatives.	Don't know	3										
43. Responsibility for own sexual actions.	Don't know	3										
44. Response to the ideas and statements of others in social interaction.	Yes	1		✓								
45. Response to positive statements made by others about self or behavior.	Don't know	1		✓								
46. Responds to negative or critical statements made by others about self or behavior.	Yes	1		✓								
47. Self initiation and leadership skills.	Don't know	2										
48. Acceptance of the help of others.	Don't know	1		✓								

Definitions

Vocational Evaluation: The primary focus of this program is an assessment of employability and the need for vocational services. It may also include assessment in non-vocational areas such as physical capacity, social functioning, hearing, etc. Situational tests using work samples or sub-contract work is almost always provided to clients in this program. Assessment service may be provided by Work Evaluators, Counselors, Physicians, Social Workers, and Psychologists. (Walker & Assoc., 1978)

Physical Restoration: The primary focus of this program is to assist the person to improve physical functioning. This program is always provided on an out-patient basis and is under the direction of a licensed physician. In addition to medical supervision and rehabilitation evaluation, the client can receive any of the following restorative services: Physical Therapy, Nursing, Occupational Therapy, Orthotics or Prosthetics. (Walker & Assoc., 1978)

Work Adjustment: The primary focus of services is to correct work habit deficiencies and to motivate people to work. Typical services involve counseling, work habit training, sub-contract work, job samples and work supervision. (Walker & Assoc., 1978)

Educational Services: The primary focus of services is to correct academic skill deficiencies, or develop or improve the skills of persons in specific occupations leading to employment.

Personal/Social Adjustment Services: The primary focus of services is to correct deficiencies in person/social skills which are needed for people to operate effectively in the non-vocational as well as vocational world of the client. Services may include counseling and/or skill training in interpersonal skills.

Medical Services: These are services provided by a physician in areas of diagnosing and treatment of chronic or acute illness.

I.L. Program: This is a community-based program which has substantial consumer involvement, provides directly or coordinates indirectly through referral those services necessary to assist severely disabled persons to increase self-determination and to minimize unnecessary dependence on others. Services provided include housing, attendant care, and information about goods and services relevant to I.L., transportation, peer counseling, advocacy or political action, and social recreational services. (I.L.R.U., 1978)

Placement: Services related to the finding of employment; i.e. specific to the goal of matching a given pattern of job knowledge and skills which a client has with the requirements of identifiable occupations. (Ninth Institute on Rehabilitation Services, 1971)

References: Frieden, L., et al., I.L.R.U. Source Book. Houston: Institute for Rehabilitation and Research, 1979.

Ninth Institute on Rehabilitation Services. Placement and followup in the vocational rehabilitation process. Washington, D.C.: RSA, Department of H.E.W., 1971.

Walker & Assoc., Development of a Model Federal State/Facilities Reporting System for Medical and Vocational Facilities, Vol. 1. Minnesota: Walker & Assoc., August 31, 1978.

Appendix K

Memorandum to Counselors

MEMORANDUM
MICHIGAN DEPARTMENT OF EDUCATION

DATE: November 4, 1981

TO: Vocational Rehabilitation Counselors

FROM: Harry Smith HS

SUBJECT: Research Project on Functional Assessment

Valerie Ellien from the Rehabilitation Counselor Education Program at Michigan State University is conducting a study to develop an inventory to assist VR counselors in assessing and planning for the personal-social adjustment needs of rehabilitation clients. Part of the study requires the involvement of state agency counselors to test the instrument.

Ms. Ellien has been given approval by Michigan Rehabilitation Services to contact counselors for their participation. It should be understood that involvement is not mandatory and that participation is on a voluntary basis. No client specific information will be requested and all responses will be reported anonymously.

MRS has agreed to cooperate in this study because it recognizes the importance of functional assessment in planning for client needs. We, therefore, encourage your participation and look forward to the results.

If you have any questions regarding this research or wish to participate, you may contact Valerie Ellien at (517) 372-1816.

HS/jvn

Appendix L

Counselor Instruction Sheets

MICHIGAN STATE UNIVERSITY

UNIVERSITY CENTERS FOR INTERNATIONAL REHABILITATION
D-201 WEST FEE HALL
TELEPHONE (517) 355-1824

EAST LANSING · MICHIGAN · 48824 · USA

To: Participating Counselors
From: Valerie Ellien, Researcher

Thank you very much for agreeing to participate in this research. This project is funded by the Research and Training Center, University of Wisconsin-Stout and is part of their long term research in the area of functional assessment. Your participation is needed and deeply appreciated.

The purpose of this project is to develop a referral inventory which will assist counselors in two areas: First, to assess client needs in the areas of personal-social adjustment and independent living; and, secondly, to communicate those needs to service providers. The results of this study will be used to further develop and refine such an instrument.

Your participation will consist of simulating the processing of one case. All the information you will need is contained in this packet. You will be identifying the personal-social adjustment problems, and service program needs of a client named James Smith. It is important that in this activity you consider the case information as if it was that of a "live client". You will select the appropriate services needed by James Smith, and then write referral statements as you would if you were sending Mr. Smith for the service program most needed. The Counselor Instruction Sheet will guide you through this process.

All information you provide for this study will be kept confidential and no data we obtain from you will be associated with your name. Thank you again for your participation. Please now read the Counselor Instruction Sheet for further instructions.

II

COUNSELOR INSTRUCTION SHEET

The attached file on James Smith represents a case which has just been transferred to you for services. Much medical and social information is already contained in his file. You are now being asked to recommend services for him.

As you carefully review this case, you will be identifying the client's problems and determining whether any additional information is needed in order to develop a plan for rehabilitation services. Please perform each of the following tasks in sequence.

1. Carefully read the case file on James Smith. Please perform this step now.

2. For each of the following services, indicate the order in which you would recommend that James Smith receive them. You will be ranking each of the following diagnostic or service programs as to its appropriateness in correcting Mr. Smith's problems, or obtaining any additional information needed. Place the number in the boxes in the right-hand column. Begin with "1" for the most appropriate program, "2" for the next most appropriate program, and so on until you have ranked every program in the boxes provided. The program which is least appropriate should have a "9" placed in the corresponding box.

Vocational Evaluation _____ ☐

Personal/Social Adjustment _____ ☐

Work Adjustment _____ ☐

Medical Services _____ ☐

Physical Restoration _____ ☐

Educational Services _____ ☐

Independent Living Program _____ ☐

Placement _____ ☐

Other (Specify) _____ ☐

3. Assume that you are now in the process of referring James Smith to the service program you just selected as #1, the most appropriate one for him. Below, two statements to include in your referral letter which would help the service provider attend to Mr. Smith's problems. To the extent possible, your statements should clearly identify specific problems in terms of level of functioning and consistency of behaviors. For example, a client might be referred for Placement services with the following two statements: "Ms. Carter is unable to complete employment applications due to her limited experience in job hunting; she also lacks confidence in job interviews and is unable to emphasize her assets and skills." Now using only the information in the RRI, write two statements which identify as clearly and specifically as possible, Mr. Smith's most important problems. Please write clearly.

I _____

_____

_____

II _____

_____

_____

4. Finally, complete the enclosed Respondent Demographic Data Form and the Evaluation Sheet.

5. Place the following completed forms in the stamped addressed envelope provided:

- the Counselor Instruction Sheet
- the Resondent Demographic Data Sheet
- Evaluation

You may discard the RRI.

6. Mail these materials by December 4, to Valerie Ellien, University Center for International Rehabilitation, D 201, West Fee Hall, Michigan State University, East Lansing, MI 48824

If you have any questions, you may contact me on Tuesday, Wednesday, Thursday, or Friday (Dec. 1-4) between 8AM and 9AM at (517) 372-1816.

THANK YOU!!

Appendix M

Follow-Up Letter

MICHIGAN STATE UNIVERSITY

UNIVERSITY CENTERS FOR INTERNATIONAL REHABILITATION
D-201 WEST FEE HALL · TELEPHONE (517) 355-1824

EAST LANSING · MICHIGAN · 48824

Dear Colleague:

I am writing first, to thank you for your agreement to participate in our project to develop a referral inventory, and secondly, to remind you that the materials are past due.

The number of counselors involved in the study is relatively small. Therefore, I have relied heavily on your commitment to participate and complete the tasks as we discussed on the phone. Each counselor's involvement is critical to the study.

I would be most appreciative if you would take the time to complete the materials and return them to me as soon as possible. Thank you again, and very best wishes for the holidays and the coming year.

Yours truly,

Valerie Ellien

Valerie Ellien
Project Director

VE:vv

Appendix N

Rating Exercise

RATING EXERCISE - EXPERT PANEL

The final phase of your involvement in this project will require you to rate the quality of referral statements written by counselors for a specific case. Referral statements should serve the purpose of helping service providers attend to a client's primary problems. They should be written to a specific service provider, e.g., a Vocational Evaluator, a Placement Counselor, etc.; and the statements should clearly identify <u>specific</u> problems.

Using the rating scales provided, please judge the quality of the following eight referral statements, by circling the appropriate numbers

A. "Ms. Stark is argumentative with supervisors in a work situation."

a) 1 Unclear — 2 Clear — 3 Very Clear (circle one)

b) 1 Not specific — 2 Specific — 3 Very specific (circle one)

c) Which <u>one</u> of the following services is the statement directed towards? (circle one)

1. Vocational Evaluation
2. Personal/Social Adjustment
3. Work Adjustment
4. Medical Services
5. Physical Restoration
6. Educational Services
7. Independent Living Program
8. Placement
9. Other

B. "Ms. Little is unable to complete employment applications due to her limited experience in job hunting."

a) 1 Unclear — 2 Clear — 3 Very Clear (circle one)

b) 1 Not specific — 2 Specific — 3 Very specific (circle one)

c) Which one of the following services is the statement directed towards? (circle one)

1. Vocational Evaluation
2. Personal/Social Adjustment
3. Work Adjustment
4. Medical Services
5. Physical Restoration
6. Educational Services
7. Independent Living Program
8. Placement
9. Other

C. "Mr. Thomas needs vocational exploration."

a) 1 Unclear — 2 Clear — 3 Very Clear (circle one)

b) 1 Not specific — 2 Specific — 3 Very Specific (circle one)

c) Which one of the following services is the statement directed towards?

1. Vocational Evaluation (circle one)
2. Personal/Social Adjustment
3. Work Adjustment
4. Medical Services
5. Physical Restoration
6. Educational Services
7. Independent Living Program
8. Placement
9. Other

D. "Mr. John can't read well enough."

a) 1 — 2 — 3 (circle one)
Unclear Clear Very Clear

b) 1 — 2 — 3 (circle one)
Not specific Specific Very Specific

c) Which one of the following services is the statement directed towards?

1. Vocational evaluation (circle one)
2. Personal/Social Adjustment
3. Work Adjustment
4. Medical Services
5. Physical Restoration
6. Educational Services
7. Independent Living Program
8. Placement
9. Other

E. "Ms. Clare is a wheelchair user who has been unable to find accessible housing in this community."

a) 1 — 2 — 3 (circle one)
Unclear Clear Very Clear

b) 1 — 2 — 3 (circle one)
Not specific Specific Very Specific

c) Which one of the following services is the statement directed towards?

1. Vocational Evaluation (circle one)
2. Personal/Social Adjustment
3. Work Adjustment
4. Medical Services
5. Physical Restoration
6. Educational Services
7. Independent Living Program
8. Placement
9. Other

F. "Mr. Leon's seizures are inadequately controlled by medication."

a) 1 — 2 — 3 (circle one)
Unclear Clear Very Clear

b) 1 — 2 — 3 (circle one)
Not specific Specific Very specific

c) Which one of the following services is the statement directed towards?

1. Vocational Evaluation (circle one)
2. Personal/Social Adjustment
3. Work Adjustment
4. Medical Services
5. Physical Restoration
6. Educational Services
7. Independent Living Program
8. Placement
9. Other

G. "Mr. James has a prosthesis which fits poorly."

a) 1 — 2 — 3 (circle one)
Unclear Clear Very Clear

b) 1 — 2 — 3 (circle one)
Not specific Specific Very Specific

c) Which one of the following services is the statement directed towards?

1. Vocational Evaluation (circle one)
2. Personal/Social Adjustment
3. Work Adjustment
4. Medical Services
5. Physical Restoration
6. Educational Services
7. Independent Living Program
8. Placement
9. Other

H. "Ms. Corey has problems with her family."

a) 1 Unclear — 2 Clear — 3 Very Clear (circle one)

b) 1 Not specific — 2 Specific — 3 Very specific (circle one)

c) Which one of the following services is the statement directed towards?

(circle one)

1. Vocational Evaluation
2. Personal/Social Adjustment
3. Work Adjustment
4. Medical Services
5. Physical Restoration
6. Educational Services
7. Independent Living Program
8. Placement
9. Other

Please be sure you have answered a, b, and c, for each of the eight referral statements. Place this form in the enclosed stamped addressed envelope and return by December 2.

If you have any questions, you may contact me on Tuesday, or Wednesday (Dec. 1-2) between 8AM and 9AM at (517) 372-1816.

THANK YOU!!

MICHIGAN STATE UNIVERSITY

UNIVERSITY CENTERS FOR INTERNATIONAL REHABILITATION
D-201 WEST FEE HALL
TELEPHONE (517) 355-1824

EAST LANSING · MICHIGAN · 48824 · USA

November 24, 1981

First I would like to thank you for your participation in the first phase of our research. I enjoyed the visit to your office.

In preparation for the second and final phase in which you agreed to participate, I am asking you to take a few minutes to complete the enclosed task. It will give you a basic idea of what you will be doing in that final phase, which we will complete wher I return to your office in December. It will also shorten the time needed to complete our work at that time.

Please read the enclosed instructions carefully, complete the assignment as described, and return the forms in the enclosed stamped-addressed envelope by December 2, 1981.

Be advised that certification maintenance credit may be made available for your participation in our December activity. Let me know on the attached form if this is of interest to you, and I will make the arrangements.

Thank you again for your participation.

Yours truly,

Valerie Ellien
Project Director

Appendix O

Agenda: Referral Rating Session

Referral Rating Session

December 17, 1981

Agenda

2:00 - 2:30 p.m.	Review of results of rating exercise conducted by mail. Review criteria: Definitions of clarity; specificity Clarity: the problem is plainly stated Specificity: the problem is defined adequately enough to give a service provider some direction in developing services.
2:30 - 3:00	Practice exercises
3:00 - 4:00	Ratings of statements

Table A1

Consistency of Responses Among Users of the ILRI in a One Case Simulation (n = 19)

Table A1: Consistency of Responses Among Users of the ILRI in a One Case Simulation (n = 19)

Item	Problem Identification			Priority Rating			Diagnostic Service Program Need								
	Yes	No	Don't Know	High	Moderate	Low	1	2	3	4	5	6	7	8	9
	(N) %	(N) %	(N) %	(N) %	(N) %	(N) %									
1	(2) 6.9	(22)75.9	(5)17.2	(4)57.1	(2)28.6	(1)14.3		(2)50							(1)25*
2	(2) 6.9	(23)79.3	(4)13.8	(3)50.0	(3)50.0		(1)33.3	(1)33.3							*
3		(26)89.7	(3)10.3	(2)66.7	(1)33.3		(2)100								
4		(26)89.7	(3)10.3	(1)33.3	(2)66.7		(1)100								
5		(24)82.8	(5)17.2	(5)100			(5)100								
6		(23)79.3	(6)20.7	(5)83.3	(1)16.7		(5)100								
7		(23)79.3	(6)20.7	(5)83.3	(1)16.7		(5)100								
8		(15)51.7	(14)48.3	(11)78.6	(3)21.4		(11)100								
9	(1) 3.4	(16)55.2	(12)41.4	(12)92.3	(1) 7.7		(9)75.0		(1) 8.3	(1) 8.3					*
10	(13)44.8	(10)34.5	(6)20.7	(17)89.5	(2)10.5		(1) 5.9	(2)11.8		(12)70.6			(1) 5.9	(1) 5.9	
11		(29)93.1	(1) 3.4			(1)100									
12	(25)86.2	(4)13.8		(14)56.0	(9)36.0	(2) 8.0							(9)64.3		(4)28.6*
13	(13)44.8	(6)20.7	(10)34.5	(18)78.3	(5)21.7		(1) 5.6	(1) 5.6					(11)47.8		(4)17.4*
14	(29)100														
15	(6)20.7	(21)72.4	(2) 6.9	(3)37.5	(3)37.5	(2)25.0						(2)66.7			(1)33.3
16	(20)69.0	(2) 6.9	(7)24.1	(21)77.8	(4)14.8	(2) 7.4	(5)23.8	(13)61.9	(1) 4.8						(1) 4.8*

*one subject failed to complete item

Item	Problem Identification			Priority Rating			Diagnostic Service Program Need								
	Yes	No	Don't Know	High	Moderate	Low	1	2	3	4	5	6	7	8	9
	(N) %	(N) %	(N) %	(N) %	(N) %	(N) %									
17	(8)27.6	(6)20.7	(15)51.7	(14)60.9	(4)17.4	(4)17.4 *	(6)42.9	(5)35.7		(1) 7.1					(1) 7.1*
18	(2) 6.9	(11)37.9	(16)55.2	(13)72.2	(2)11.1	(1)16.7	(7)53.9	(3)23.1		(2)15.4					*
19	(13)44.8	(2) 6.9	(14)48.3	(19)70.4	(6)22.2	(1) 3.7 *	(8)42.1	(9)47.4					(1) 5.3		*
20	(9)31.0	(3)10.3	(17)58.6	(9)34.6	(11)42.3	(5)19.2 *	(5)55.6	(2)22.2					(1)11.1		*
21	(2) 6.9	(3)10.3	(24)82.8	(5)19.2	(11)42.3	(10)38.5	(1)20.0	(1)20.0					(2)40.0		*
22	(15)51.7	(2) 6.9	(12)41.4	(18)66.7	(7)25.9	(1) 3.7 *	(4)22.2	(11)61.1					(2)11.1		(1) 5.6
23		(22)75.9	(7)24.1	(5)71.4		(2)28.6	(2)40.0	(1)20.0					(1)20.0		(1)20.0
24	(2) 6.9	(19)65.5	(8)27.6	(1)10.0	(2)20.0	(7)70.0		(1)100							
25	(4)13.8	(19)65.5	(8)20.7	(9)90.0	(1)10.0		(1)11.1	(3)33.3		(3)3.33			(1)11.1		*
26	(29)100			(28)100			(1) 3.4	(19)65.5							(8)27.6
27	(1) 3.4	(6)20.7	(22)75.9	(10)43.4	(7)30.4	(5)21.7 *	(4)40.0	(1)10.0	(5)50.0						*
28	(22)75.9	(4)13.8	(3)10.3	(17)70.8	(4)16.7	(3)12.5		(12)72.2		(1) 5.6			(2)11.1		(2)11.1
29	(12)41.4	(12)41.4	(5)17.2	(5)29.4	(6)35.3	(5)29.4 *							(5)100		
30	(1) 3.4	(5)17.2	(23)79.3	(1) 4.2	(2) 8.7	(20)83.3 *							(1)100		
31		(5)17.2	(24)82.8	(1) 4.2	(5)20.8	(18)75.0							(1)100		
32	(2) 6.9	(3)10.3	(24)82.8		(7)26.9	(19)73.1									

*one subject failed to complete item

Item	Problem Identification			Priority Rating			Diagnostic Service Program Need								
	Yes (N) %	No (N) %	Don't Know (N) %	High (N) %	Moderate (N) %	Low (N) %	1	2	3	4	5	6	7	8	9
33	(5)17.2	(4)13.8	(20)69.0	(2) 8.0	(8)32.0	(15)60.0		(2)100							
34	(3)10.3	(6)20.7	(20)69.0	(7)30.4	(6)26.1	(10)43.5		(1)14.3				(1)14.3	(3)42.9		(2)28.6
35	(15)51.7	(3)10.3	(11)37.9	(5)19.2	(9)34.6	(12)46.2		(1)20.0					(4)80.0		
36	(21)72.4	(1) 3.4	(7)24.1	(5)17.9	(16)57.1	(7)25.0		(2)40.0					(3)60.0		
37	(25)86.2	(2) 6.9	(2) 6.9	(16)59.3	(10)37.0	*	(1) 6.3	(11)68.8					(1) 6.3		(2)12.5*
38	(14)48.3	(1) 3.4	(14)48.3	(14)50.0	(11)39.3	(2) 7.1 *	(1)42.9	(6)42.9					(1) 7.1		*
39	(12)41.4	(3)10.3	(14)48.3	(9)34.6	(10)38.5	(7)26.9	(3)33.3	(4)44.4					(1)11.1		*
40	(15)51.7	(1) 3.4	(13)44.8	(10)35.7	(10)35.7	(8)28.6	(3)30.0	(5)50.0					(1)10.0		*
41	(3)10.3	(1) 3.4	(25)86.2	(4)14.3	(5)17.9	(18)64.3 *	(1)25.0	(3)75.0							
42		(2) 6.9	(27)93.1	(4)14.8	(8)29.6	(14)51.9 *		(3)75.0							
43		(3)10.3	(26)89.7	(7)26.9	(3)11.5	(15)57.7 *		(4)57.1							(1)14.3**
44	(10)34.5	(1) 3.4	(18)62.1	(15)53.6	(10)35.7	(2) 7.1 *	(3)20.0	(10)66.7					(1) 6.7		*
45	(5)17.2	(1) 3.4	(23)79.3	(13)46.4	(10)35.7	(4)14.3 *	(2)15.4	(10)76.9							*
46	(12)41.4		(17)58.6	(23)79.3	(3)10.3	(2) 6.9 *	(6) 4.4	(15)65.2	(1) 4.4						*
47	(15)51.7		(14)48.3	(11)37.9	(14)48.3	(4)13.8	(2)18.2	(7)63.6					(1) 9.1		*
48	(11)37.9	(5)17.2	(13)44.8	(13)54.2	(9)37.5	(1) 4.2 *	(1) 7.7	(9) 6.9	(1) 7.7				(1) 7.1		*

*one subject failed to complete item **two subjects failed to complete item

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