The Learning Enhancement for Adults with Disabilities (LEAD 2000) project was undertaken at Jones Learning Center of the University of the Ozarks to build a knowledge base regarding the literacy and learning needs of adults with learning disabilities (LDs) and to develop a pragmatic action plan to meet those needs. Information for the knowledge base was obtained by holding a congress of representatives of a cross-section of public and private programs and organizations providing adult literacy and basic skills instruction and by reviewing relevant literature and assessment tools. The evaluator determined that the project had indeed enhanced the base of knowledge regarding the literacy and learning needs of adults with LDs and that the plan formulated to develop, promote, and administer standardized, uniform assessment of adults with LDs was effective. Field-based research to identify the scope and sequence of relevant tasks, conditions, and context criteria of reading proficiency and to identify remedial practices responsive to them was recommended. (Appendixes constituting the majority of this report contain the following: statement of project revenues and expenditures; LEAD 2000 conference proceedings; assessment instrument evaluation form; lists of evaluation, standardized screening, diagnostic, and prescriptive assessment instruments suggested for adult populations; and LD characteristics checklists.)
Learning Enhancement
For Adults With Disabilities

LEAD 2000
Final Performance and
Financial Report

National Institute For Literacy
February 28, 1994

University of the Ozarks
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Final Performance and
Financial Report

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>SECTION</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>SUMMATIVE EVALUATION</td>
<td>3</td>
</tr>
<tr>
<td>SUMMARY AND DISCUSSION</td>
<td>17</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>23</td>
</tr>
<tr>
<td>APPENDICES</td>
<td></td>
</tr>
<tr>
<td>Appendix A</td>
<td>24</td>
</tr>
<tr>
<td>Appendix B</td>
<td>25</td>
</tr>
<tr>
<td>Appendix C</td>
<td>80</td>
</tr>
<tr>
<td>Appendix D</td>
<td>81</td>
</tr>
<tr>
<td>Appendix E</td>
<td>85</td>
</tr>
<tr>
<td>Appendix F</td>
<td>101</td>
</tr>
<tr>
<td>Appendix G</td>
<td>102</td>
</tr>
<tr>
<td>Appendix H</td>
<td>104</td>
</tr>
</tbody>
</table>
INTRODUCTION

The task of the Learning Enhancement for Adults with Disabilities (LEAD 2000) grant was to build a knowledge base regarding the literacy and learning needs of adults with respect to Goal 5 of the National Goals of Education (i.e., "By the year 2000 every adult American will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship."), and to establish a pragmatic action plan to respond to those needs. The development of the knowledge base was described as Phase One of LEAD 2000. The knowledge base was to be obtained by holding a congress of representatives from relevant constituencies, gathering their ideas, and reviewing the relevant literature and assessment tools (i.e., Phase Two of LEAD 2000). The two phases were run consecutively.

Evaluation Plan

The purpose of this report is to describe and assess the activities of LEAD 2000. No evaluation model nor plan was specified in the LEAD 2000 proposal. This report will be organized according to the Context, Input, Process, and Product (CIPP) model (Stufflebeam, Foley, Gephart, Guba, Hammond, Merriman, & Provus, 1971). The CIPP model will be applied in a "formulative" analysis and a summative evaluation. The evaluator is the current Director of the Jones Learning Center.

Formulative Analysis of Context

The project was initiated by the Jones Learning Center at the University of the Ozarks. The Jones Learning Center has been a national leader in programming for young adults with learning disabilities since 1971. The Center offers comprehensive support for ninety students fully participating in a liberal arts setting. It has a staff of twenty-three. The University of the Ozarks is a competitive, private institution founded in 1834. It is affiliated with the Presbyterian Church (U.S.A.).

The principal staff specified in the LEAD 2000 proposal included a project director, a research director, and a consultant. The project's duration was one year commencing January, 1993 and concluding December, 1993. The project director was to contribute 50% time for the duration. The project director's responsibilities included general administration including the development of the Congress, and preparation and dissemination of the proceedings, results, and final report.

The research director was to contribute 50% time for the duration. His responsibilities included assisting the director and implementing Phase Two of the project. The consultant was to contribute approximately fifty-four hours of technical assistance regarding computer applications and assist in compiling data for the final report.
Formulative Analysis of Input

The targeted constituencies included representatives from higher education; adult basic education; adult literacy programming; private practice; and state and federal government administration, agencies, military, and departments of corrections. The knowledge base was to be obtained by holding a congress of the above representatives, gathering their ideas, and reviewing the relevant literature and assessment tools (i.e., Phase Two of LEAD 2000).

The resulting knowledge base was to be used in the formulation of the action plan. The intention of the action plan was to place the best available tools in the hands of Americans to enhance their ability to obtain and manipulate information, and reasonable academic adjustments or accommodations as applicable under the Rehabilitation Act of 1973 and the Americans with Disabilities Act. In short, Americans need to be able to exercise the rights and responsibilities of citizenship and to compete in a global economy as suggested by National Education Goal 5.

The following specific outcomes were targeted in the LEAD 2000 proposal:

- to set an agenda for addressing the needs of adults with learning disabilities;
- to increase the awareness of those who work with adults learning disabilities to identify, assist, and counsel those whose performance is inadequate;
- to enhance understanding of the nature of and best intervention strategies to overcome learning disabilities;
- to strengthen access to services and advances in the field to non-urban and minority populations;
- to improve learning disabilities services for adults in the workplace, military, prisons, welfare agencies, Job Corps, and literacy programs;
- to achieve a greater understanding of the perceptual and cognitive dysfunctions underlying marginal performance by adults with learning disabilities;
- to review current diagnostic procedures to establish the necessary research for the development of an objective, highly reliable, computer-based instrument for adults.
Formulative Analysis of Process, and Product

Phase One: LEAD 2000 Congress

Participants in the LEAD 2000 Congress were chosen with the intention of creating a cross-section of representatives from public and private programs and organizations providing or seeking to provide adult literacy or basic skills instruction, including local educational agencies, agencies responsible for corrections education, programs supported by the Job Training Partnership Act, welfare agencies, labor organizations, businesses, volunteer groups, and community based organizations.

Phase Two: Literature Review and Evaluation of Existing Tests

To learn what types of instrumentation were currently being used by the participants of the National Congress, a letter was sent to the members of the Congress, requesting a response regarding the instruments and techniques of evaluation used by each individual. Approximately one month later, a second letter was sent to those participants who had not responded.

SUMMATIVE EVALUATION

Context Evaluation

The students with learning disabilities served by the Jones Learning Center of the University of the Ozarks are not a representative sample of the population of adults with literacy needs attributable to learning disabilities. Moreover, experience and expertise in college programming for young adults with specific learning disabilities does not necessarily transfer to principle constituency targeted to benefit from LEAD 2000 (i.e., adults with literacy concerns).

In fact, the very observations of the LEAD 2000 Congress with respect to the demographics and scope of the principle constituency underline the significance of the restriction of range of the sample of young adults with identified learning disabilities served by the Jones Learning Center. Young adults with learning disabilities served by the Jones Learning Center have been identified and categorized as having a learning disability, more often than not received services and completed high school, decided to pursue formal higher education, and decided to attend a small, liberal arts college with a comprehensive academic support program.

In contrast, the principle constituency targeted by LEAD 2000 has not been identified and categorized as having a learning disability, has not received services and may not have completed high school, and is seeking pragmatic assistance to acquire literacy skills.
In addition, the proposal suggested the project personnel could fulfill their duties with respect to the Jones Learning Center and those delineated in LEAD 2000. The project director was to contribute 50% of his time. The project director's responsibilities included general administration including the development of the Congress, and preparation and dissemination of the proceedings, results, and final report.

The research director was to contribute 50% time for the duration. His responsibilities included helping the director and implementing phase two of the project. The consultant was to contribute approximately fifty-four hours of technical assistance regarding computer applications and assist in compiling data for the final report.

In fact, the labor intensive nature of the Jones Learning Center and the LEAD 2000 proposal inevitably lead to a conflict of priorities and obligations. Two of the key personnel cited in the proposal, i.e., the original project director and the computer application consultant, became dissociate with the university at critical stages of implementation. This change in key personnel lead to the Vice President of Academic Affairs assumption of the responsibility for completion of Phase One, a national search for a new director of the Jones Learning Center, and the overextending of responsibilities for the research director.

Moreover, the Jones Learning Center's assistant director assumed responsibility for the management of the Center and skillfully provided continuity in service delivery until a new director was found. Progress on implementation of the project was halted. Following the arrival of the new director, the assistant director of the Center resigned in part due to the above changes in personnel and responsibilities.

These changes significantly affected the Jones Learning Center and the LEAD 2000 project. A new director of the Jones Learning Center was hired in August but the implementation of Phase Two was impeded by competing priorities and the absence of the computer application consultant.

Fortunately, the new director, the present internal evaluator of the project, was conversant with learning disabilities in the broader context of adult literacy, familiar with current best practices for screening and remediating learning disabilities in adults, and experienced in field research. More significant, the research director for the project managed to implement Phase Two even after assuming the interim role of assistant director of the Jones Learning Center. Consequently, the research director was the sole contiguous member of the original project personnel. However, significant questions regarding the capability of the institution to maintain a coherent program to research, demonstrate, and disseminate the project remained.
Input Evaluation

Although the Congress of LEAD 2000 did include representatives from key constituencies (higher education, adult basic education, adult literacy programming, private practice, and state and federal government administration, agencies, military, and departments of corrections), the selection of representatives was done by the original project director. Several prominent figures from higher education with expertise in programming for adults with learning disabilities did not participate in the Congress. Moreover, once the original project director left the university the project's intentions, the inclusion of diverse representatives, and the importance of networking became diffused.

Process Evaluation

The proposal recognized that National Education Goal 5 is affected by the present restrictions of knowledge regarding learning, learning disabilities, assessment, and available interventions and practices. Moreover, it was aware of the influence or potential influence of socioeconomic factors in the assessment of learning, identification of learning disabilities, availability of assessment instruments, personnel, technology, and remediation. Finally, it was understood that while the LEAD 2000 grant would result in a summative evaluation in the form of a final performance and financial report, the project's impact was predisposed to a formulative evaluation given the inherent restrictions presented by our current knowledge and best practices.

However, it should be noted that the departure of key personnel together with competing responsibilities of fulfilling the primary service and management functions of the Jones Learning Center did affect the process of project implementation. In particular, the lack of continuity of personnel influenced the formulative evaluation. Finally, the amount budgeted for obtaining and evaluating existing screening instruments and tests was not sufficient.

Product Evaluation

Phase One

The LEAD 2000 Congress met in Little Rock, Arkansas on January 29 and 30, 1993. The Congress was convened by Judy Alexander, Ph.D., the Vice President of Academic Affairs at the University of the Ozarks. The Congress was organized according to agenda-formation sheets based on the targeted outcomes. The agenda items included definitions and demographics; diagnosis; coping, compensation, and programs; and implications and actions. The Congress made the following determinations.
Definitions

During the Congress, Dr. Judy Alexander asked the participants if it was their consensus that the National Joint Committee on Learning Disabilities definition be adopted:

"Learning disabilities is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction, and may occur across the lifespan. Problems in self-regulatory behaviors, social perception, and social interaction may exist with learning disabilities but do not by themselves constitute a learning disability. Although learning disabilities may occur concomitantly with other handicapping conditions (for example, sensory impairment, mental retardation, serious emotional disturbance) or with extrinsic influences (such as cultural differences, insufficient or inappropriate instruction), they are not the result of those conditions or influences." (National Joint Committee on Learning Disabilities, 1988)

However, this consensus was not reached. One participant suggested that the difficulty in reaching a consensus regarding an operational definition was the variability of contexts in which adults engaged in applied problem solving.

Demographics

There is a crisis with respect to literacy and National Education Goal 5. Forty percent of the youths with learning disabilities drop out of school. Forty percent of over forty-three million Americans with disabilities have not completed high school and need access to adult education.

Programs

Federal funding for adult education provides an average of less than $100.00 per person. The United States Department of Education has erroneously assumed that a volunteer tutoring force and part-time programs are able to meet the educational needs of adults with learning disabilities, many of whom require highly trained teachers.
Implications

According to the Proceedings, the Congress made the following resolutions in March 1993. The United States Department of Education should establish:

- a formal national policy for lifelong learning needs and education of adults with learning disabilities;
- a reasonable funding level for the education of adults with learning disabilities;
- consistency and continuity among all government agencies in relation to service delivery and recognition of the needs of adults with learning disabilities;
- interagency task forces to provide effective program linkage between Health and Human Services, Department of Labor, Department of Education, and other federal agencies impacting adults with learning disabilities that will create a coordinated system of lifelong learning for all Americans, including adults with learning disabilities;
- research, funding, and dissemination of information of adult education programs that have a proven track record of success.

According to the Proceedings, the Congress recommended that the following action agenda be implemented.

- Develop, promote, and administer standardized, uniform assessment.
- Establish a national clearinghouse.
- Establish a national learning center.

The complete Congress Proceedings, including the action agenda, are included in Appendix B. The proposal for LEAD 2000 recognized that the determination of an operational definition of learning disabilities was not within the purview of the Congress. Rather, the pragmatic focus was to: "identify the most objectively definable learning disabilities, determine which of these are most prevalent, provide a carefully developed, objective, highly reliable computerized test battery to identify them and diagnose the perceptual and cognitive deficits associated with them, and provide recommendations for effective, disability-specific programs to enhance those skills that are impaired."
Phase Two

Phase Two of LEAD 2000, which followed the National Congress for Adults with Learning Disabilities, was originally intended to use the direction provided by the Congress as a guide for continuation of the project. This phase included a review of existing literature related to learning disabilities subtypes and current tests and testing practices related to learning disabilities. Phase Two was to provide a transition between the work of the National Congress and the ultimate goal of the LEAD 2000 project that was to develop and disseminate a valid, objective, highly reliable computerized test battery that would identify specific learning disabilities and diagnose specific cognitive and perceptual deficits related to them. In addition, the battery would also be expected to provide specific recommendations for effective, individualized, disability-specific remedial programs to enhance those skills impaired. This computerized battery was to be the result of the next phase of the complete LEAD 2000 plan. To move toward that goal, Phase Two included two types of review: literature review and hands-on evaluation of existing tests. This section concludes with descriptions of multiple levels of evaluation intended to provide useful information for examiners at various levels of expertise.

Literature Review

Learning Disabilities Subtypes

In the review of literature about subtypes of specific learning disabilities, resources were reviewed to determine which subtypes were most prevalent, most readily identifiable, and most objectively identifiable. The review included searches of ERIC and Psychological Abstracts databases using learning disabilities and subtypes as key search terms. These searches yielded hundreds of references that included these terms. A review of the abstracts of these references yielded many resources deemed appropriate to the questions related to subtype.

While there was no definitive literature related to the prevalence of subtypes of learning disabilities, the preponderance of the literature discussing subtypes dealt with one or more of four subtypes of specific learning disabilities. Since there are no definitive data related to this question, especially in the adult population, predominance in the literature seemed the most logical criterion for selection of prevalent subtypes. Excluding nonverbal subtypes, the four most prevalent subtypes in the literature were dyslexia, dysgraphia, dyscalculia, dysorthographia. Dyslexia is defined as a disability that affects the process of reading; dysgraphia is a disability related to the production of written language. Dyscalculia is a disability in the process of mathematics, and dysorthographia affects spelling. Based on current literature, these four subtypes appeared to be the most prevalent subtypes of specific learning disability. Moreover, these subtypes somewhat correspond to the proficiencies targeted in National Education Goal 5.
In terms of identifiability, the results of the literature review were more vague. While logic would suggest that the four most prevalent subtypes would also be the simplest to identify with ease and objectivity, the literature is quite mixed regarding identification of learning disabilities. While the focus of LEAD 2000 was not to provide a definitive definition of a learning disability, the LEAD 2000 Congress was expected to develop a working definition that would lead to pragmatic means of identification of learning disabilities. Unfortunately, the outcomes of the Congress did not include a practical definition of the concept. Therefore, the question of identification became problematic as there was no generally accepted working definition of a learning disability in the literature.

Given this, if one uses a traditional ability/achievement score discrepancy model such as that proposed by special education legislation such as Public Law 94-142 and the Individuals with Disabilities Educational Act (IDEA), the question of identification becomes more manageable. The most easily and objectively identifiable subtypes of learning disability are those related to academic areas, such as the four aforementioned subtypes. However, the current literature regarding adults with learning disabilities indicates that ability/achievement discrepancy models are of questionable validity for the adult learning disabilities population.

Without a specified working definition of learning disability, the questions of ease and objectivity of subtypes cannot be adequately addressed. One of the major problems related to objective identification of learning disabilities in the adult population is that the field appears to be attempting to utilize a norm-referenced assessment/prediction model for a condition which exists in a criterion-referenced world. The question of objective identification must be secondary to a generally accepted working definition.

Catalog Review

A review of the literature related to assessment instruments utilized with adults with learning disabilities revealed that the most widely researched instruments were the commercially available, nationally standardized tests found in the catalog review. This finding suggested that while there may be any number of excellent evaluative instruments which are non-standardized or of an informal nature, researchers are currently attempting to answer most questions related to learning disabilities by utilizing tests that have already been well established and used by previous researchers. Literature related to diagnostic testing and adults with learning disabilities revolved almost exclusively around well-established tests. Obviously, the statistical concerns of reliability and validity played a major role in the overwhelming use of standardized tests in adult learning disabilities, as many researchers simply do not wish to contend with the possibility of such confounding variables.
It should be noted that one resource in particular (Brinckerhoff, Shaw, & McGuire, 1993), in an examination of postsecondary education of adults with learning disabilities, addressed the question of appropriate assessment tools for appropriate evaluation of the adult population. This resource also included a list of test instruments which are commonly used for this purpose.

The process began with a review of catalogs of published tests. The initial process followed a checklist approach which determined whether the instrument was age-appropriate for an adult population, the type of information the test provided (i.e. intelligence, information processing, etc.), whether information regarding statistical properties was adequate, the amount of time required, and whether the instrument had potential to be developed into part of a computerized test battery. A similar procedure was utilized by Salvia and Ysseldyke (1991) in their review of test instruments appropriate for the assessment of children and adults with a variety of educational disabilities. A copy of the initial review form which was used can be found in Appendix C.

Information from National Congress Participants

As noted in the formulative analysis of the LEAD 2000 process, two weeks following the National Congress on Learning Disabilities, each participant was sent a letter requesting a response regarding the instruments and techniques of evaluation utilized by each individual. Approximately one month later, a second letter was sent to those participants who had not responded. A total of only nine participants responded with information regarding assessment. Four other members replied with indications that they were neither involved with nor had information regarding assessment of adults with learning disabilities. No response was received from the remainder of the participants.

Of the nine members who sent information regarding evaluation instruments and techniques, only three were using nationally standardized tests as a standard battery. Each of these three reported supplementing this information with informal assessment and observations in reaching a diagnostic conclusion. The remaining six participants reported using instruments that were standardized at only a local or state level, non-standardized instruments, informal assessment devices, or primarily observational in nature. Each of the nine responding stressed the importance of professional judgment as a critical component of the diagnostic process.

Computerized Testing Approaches

One of the goals of LEAD 2000 was to investigate and evaluate the feasibility and merits of developing a computerized testing battery that would be appropriate for the population of adults with learning disabilities. The ultimate goal of this aspect of the project would be the generation of a carefully developed, objective, highly reliable computerized test battery to identify learning disabilities and to diagnose the perceptual and cognitive deficits associated with them.
The literature review related to computerized testing was much more difficult to begin, as the terminology is quite varied. To accomplish the review, both the ERIC and Psychological Abstracts databases were utilized using the search terms computerized, computer-based, and computer-assisted in combination with the terms tests, testing, assessment, diagnosis, and evaluation. The search yielded in excess of three hundred references, the majority of which were not related to computerized assessment as intended for the purpose of LEAD 2000.

As the literature on this aspect of the project was reviewed, it became readily apparent that the original question concerning the creation of a computerized test battery must be broken down into a number of smaller questions that must be answered. The first of these questions is whether or not a carefully developed, objective, highly reliable battery of tests could be developed to diagnose learning disabilities. From the testing literature reviewed, as well as the work carried out in the LEAD 2000 project, the answer to this question is that such a battery can be developed. In determining a selection of appropriate instruments for adults with learning disabilities, it was noted that the LEAD 2000 list almost mirrored other lists generated for the same purpose. Therefore, it does appear that an appropriate battery of test instruments can be determined for diagnosing learning disabilities in the adult population.

Another of the questions to be addressed is whether the instruments included in the battery could be incorporated into a computer administered assessment system. Again, the answer appears to be yes; it is possible, with modifications and normative revisions that most of the instruments deemed appropriate could be incorporated into a computerized assessment battery. In fact, the literature review revealed that a number of instruments that would be appropriate for assessment of adults with learning disabilities are currently available in computerized form (Stoloff & Couch, 1988). In addition, many others offer computerized scoring and/or report generation. Thus it does appear that a computerized assessment battery could be developed.

From the information obtained through the review of the literature, as well as from the researcher's direct experiences with many of the current computerized assessment, scoring, and report writing programs, it became evident that there were other questions that should have been examined between the previous two questions. These questions were not included in the original LEAD 2000 proposal, but the answers to them have significant impact on many of the other aspects examined in this project. The first of these questions is what are the characteristics of the most appropriate instruments for the assessment of adults with learning disabilities that distinguish them from other less appropriate tests? First, the vast majority of these instruments require an examiner with substantial training in evaluation and assessment. Related to the need for a qualified examiner is the need for clinical skills in observing performance and developing a professional judgment regarding the examinee's patterns of performance. Any skilled diagnostician is sensitive to a number of factors, including behavioral and affective characteristics of the examinee, error patterns, and testing conditions that can have significant effects on the interpretation of results. In other words, the same numbers may be generated, yet the interpretation and subsequent diagnosis may be quite different depending on the impact of these other factors.
The next question then becomes what effect do these test characteristics have on computer application of these instruments? The first impact relates to a broad misconception by many that appropriate tests yield appropriate diagnosis. In other words, does instrumentation equal diagnosis? The answer here is clearly no. Accurate diagnosis requires the critical component of clinical skills. Thus, the feasibility and merits of computer evaluation given the current state of technology can be summarized with a series of questions and answers. Can we develop an appropriate test battery to assess adults with learning disabilities? As previously discussed, this can and has been accomplished. Can this battery be modified for computerized administration? Again the answer is yes; a modified version of the test battery can be administered by computer. Can this battery yield the same degree of valid interpretation as a skilled diagnostician? At this time, computer technology cannot reproduce the clinical skills nor the professional judgments of an experienced examiner. Would this computerized battery lead to appropriate diagnosis of learning disabilities? Given the current state of technology, a computerized assessment might render a diagnosis, but the accuracy and appropriateness of that diagnosis would always be subject to serious question.

The other questions posed by LEAD 2000 related to computerized assessment can be answered more simply. No literature was found related to a real-time adaptive approach that would require that the examinee engage in increasingly difficult versions of tasks until he/she reach that previously determined level of difficulty, at which time the computer would automatically begin to decrease the level of difficulty until the examinee achieved a previously determined level of proficiency. This process would then repeat the cycle on the same task. Although no literature directly related to this concept was reviewed, the process is very similar to the basal and ceiling process utilized by most test instruments to determine appropriate beginning and ending points for various tasks. This process, however, would be significantly more complicated than basals and ceilings and would require renorming of the test instruments involved.

Limited literature was available related to multi-task approaches to assessment. This approach requires an examinee to perform in a testing environment in which he/she must rapidly perceive and integrate information from multiple sources simultaneously in order to identify perceptual and cognitive deficits. This approach is currently utilized in sensory testing or in assessment related to attention or short-term memory deficits. For these types of assessments, the multi-task approach offers significant diagnostic information. However, for overall assessment of cognitive, perceptual, and achievement functioning, such an approach could likely prove to be a confounding factor rather than an effective tool for differential diagnosis. Additionally, such an approach would again require complete renorming of any current nationally normed assessment instrument.

The final question posed by the LEAD 2000 proposal relates to the feasibility of the use of a computer game format for the computerized evaluation. The rationale being that such a format might be more appealing to examinees who might be daunted by a more formal assessment. The literature revealed no information regarding a computer game format for any type of substantive cognitive or perceptual assessment. While it would be possible to incorporate some instruments
or portions thereof into such a format, for other instruments this would not be a viable format. Additionally, such a format would again require complete renorming of any currently used test instrument for adults. Yet another potential difficulty with this format would be its effect on examinees's perception of the importance of the assessment. Some portions of currently used tests have something of a game-like quality to them; examiners are required to stress that while the tasks may seem like games that it is important to put forth one's best effort in the testing. The computer game format, while making some examinees more comfortable, could minimize their sense of the importance of the assessment; this could in turn allow them to feel more comfortable being lax in portions of the assessment that they found difficult. This tendency would invalidate the diagnostic integrity of the test results.

**Hands-on Evaluation of Existing Tests**

The final stage of Phase Two of LEAD 2000 was the review of existing tests. This review was intended to identify tests of merit that already address, in part or in whole, one or more of the salient characteristics of a specific learning disability. The goal of this review process was to identify instruments which were reliable and valid for the adult population that also assessed intelligence, cognitive/information processing, learning skills, or academic achievement. Instruments that appeared appropriate were reviewed in the Buros Mental Measurements Yearbook—Tenth (1989) and Eleventh Editions (1992). Reviews for some of the most recent tests were not available.

An instrument that the review indicated to be of poor diagnostic quality, questionable validity, or for which the results were considered to be unreliable, was eliminated from the list. The remaining list consisted of sixteen tests of intelligence/general ability, fifteen tests of cognitive/information processing, and forty-three measures of academic achievement. Of these instruments, those which evaluated intelligence, information processing, and academic achievement in an in-depth manner and which appeared to provide appropriate diagnostic information were selected for hands-on evaluation with an adult population. This review consisted of twelve measures of intelligence, nine measures of information processing, and twenty-three measures of academic achievement.

The final list of instruments considered most appropriate for the evaluation of adults with learning disabilities are included in Appendix D. The selected instruments should, with appropriate examiner training, permit diagnostic assessment of adults and also potentially lead to appropriate prescriptive interventions for those examinees who are determined to have a learning disability. Also included in the list is a selection of screening instruments which were deemed to provide the most reliable, comprehensive initial screening information in an effective and time-efficient manner.
Multiple Levels of Evaluation

The process of evaluation allows for a variety of approaches that can be conducted by persons of varying levels of expertise. The appropriate level of assessment is determined by the necessary outcome of such examination. The following is a brief explanation of several levels of evaluation with a listing of instruments appropriate to each level.

Intake Screening

Intake screening, as the name implies, is a very basic level of assessment in which the purpose is simply to obtain general information which indicates whether a perceived learning problem exists. Evaluation at this level can be accomplished using a simple interview approach or by having the individual complete a questionnaire or checklist which asks questions related to symptoms of learning disabilities. A number of instruments are available for intake screening; for use with an adult population, the use of questionnaires or checklists is recommended. It should be noted that it may be necessary to read materials to the examinee. Appendix E contains examples of checklists and questionnaires appropriate for initial intake screening with adult populations.

Standardized Screening

Standardized screening involves the use of standardized test instruments to perform a minimal assessment of characteristics suggestive of learning disabilities. The instruments involved in this process do not have sufficient depth or power to provide true diagnostic information, rather they indicate general patterns of learning and performance which may be the result of specific learning disabilities. There are generally two possible purposes for this level of evaluation; the first of these is to determine whether there is sufficient evidence that a learning disability exists to warrant referral for a more in-depth evaluation to provide differential diagnosis or prescriptive interventions. The second common purpose for this level of screening would be for a very basic level of differentiation between those with "learning problems" and those without. For example, a private school might have an optional program for students with learning difficulties; a rough screening of intelligence and basic achievement might be sufficient to determine which students might benefit from participation. Appendix F contains a list of screening instruments which may be appropriate for the adult population.
Differential Diagnosis

Differential diagnosis is a much more complex level of evaluation than the previous two in that it involves assessment of sufficient depth and power that it becomes possible to formulate a professional judgment regarding the existence and degree of specific learning problems. This level of assessment is used to differentiate between the range of possible explanations for a learning difficulty. For example, the differential diagnosis level of evaluation would be used to determine whether a given individual's learning problems are the result of low ability, an Attention Deficit Disorder, or a specific learning disability. Evaluation at this level is critical for decisions regarding participation in specialized programs designed to ameliorate a specific learning problem. In other words, if making admissions decisions for a program for specific learning disabilities, one would want to be able to make the determination that a given individual's difficulties were the result of a specific learning disability rather than a physical impairment such as a closed head injury or an emotional disorder. Such distinctions become vitally important when program interventions are designed based on an assumed learning disability. Appendix G contains a listing of assessment instruments which may be appropriate for the differential diagnosis of adults with learning disabilities.

Prescriptive Assessment

Perhaps the most sophisticated level of evaluation is that of prescriptive assessment. As the name suggests, this type of evaluation is designed to determine an individual's specific needs and to develop an appropriate "prescription" of interventions to meet these needs. While the previous levels of evaluation sought, to varying degrees, to document the existence or non-existence of a specific learning disability, prescriptive assessment goes far beyond the scope of the other levels. Whereas the question being posed for each of the other three levels has been a variation of, "Is there a specific learning disability?", prescriptive assessment seeks to answer the question, "What will this individual need to function in his/her chosen environment?" Often when one reads the proceedings of conferences, consortia, congresses, etc., one is left with the question of what to do when a disability is indicated. This most important question is addressed through the prescriptive assessment level of evaluation. As might be expected, this type of evaluation is very sophisticated, and there are very few evaluators who are currently capable of conducting such an assessment; largely because this type of evaluation relies more heavily on clinical skills or experience, there are a number of currently available standardized instruments which provide excellent information to assist in the development of appropriate intervention prescriptions for adults with learning disabilities. A listing of such instruments which were reviewed during the course of this project is included in Appendix H.
Summary

The goal of Phase Two of LEAD 2000 was to examine the literature related to learning disabilities in the adult population to determine what subtypes are most prevalent and to review test instruments appropriate to the adult population. The ultimate end of this review and analysis was to be a list of instruments which could be adapted for computer administration and subsequent diagnosis and intervention. As Phase Two progressed, it became clear to this writer that the goals of this phase did not necessarily coincide with the overall questions which led to the LEAD 2000 proposal; these questions related to how to provide appropriate, valid, and reliable diagnostic testing to the segment of the adult population which might not be otherwise receive such evaluation, and how to develop appropriate remedial and intervention strategies for these individuals. Throughout Phase Two, it has become increasingly clear that the assumption that the pursuit of a technology-oriented evaluation approach may not be the best or most appropriate response to this need. The information obtained during this phase suggested that computer-based assessment cannot, at the current stage of technology, provide in-depth, valid diagnosis of specific learning disabilities. Such a diagnostic process involves clinical and observational skills, as well as a degree of professional judgment which cannot be programmed into a computer at this time. Given the current state of technology, the best that might reasonably be achieved would be a computerized screening battery which could suggest the need for in-depth professional evaluation. Perhaps the question which should be addressed is how can professional evaluation be made more available and affordable to the general population rather than how to replace the human element with computer technology.
SUMMARY AND DISCUSSION

Ultimately, both Phases One and Two of the Learning Enhancement for Adults with Disabilities (LEAD 2000) grant were successful especially given the ambitious task undertaken. The task of the grant was to build a knowledge base regarding the literacy and learning needs of adults with respect to Goal 5 of the National Goals of Education (i.e. "By the year 2000 every adult American will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship."), and to establish a pragmatic action plan to respond to those needs. A pragmatic action plan was generated, and a review of the relevant literature and assessment tools was conducted. The knowledge base was enhanced. The implementation of both phases reflects the complexity of the task undertaken and the departure of key personnel.

The LEAD 2000 proposal indicated a growing realization that if National Education Goal 5 was to be obtained then a broader framework emphasizing pragmatism over theory had to be established. In addition, the fiscal realities of the 1990s could not be ignored. Accordingly, an examination of currently available human and technological resources was required in order to determine the most effective prioritization and commitment of limited funds.

The LEAD 2000 Congress was unable to reach a consensus regarding the National Joint Committee Definition of Learning Disabilities (NJCLD). One participant suggested that the difficulty in reaching a consensus regarding an operational definition was the variability of contexts in which adults engaged in applied problem solving. If the context being considered is limited to educational settings governed by IDEA, then the NJCLD definition and its operationalization offered by Brinckerhoff, Shaw, and McGuire (1993) might have some utility.

However, the National Literacy Act has applications across vocational as well as educational contexts. I believe this lack of consensus reflects the incongruence of two paradigms: a norm-referenced paradigm that is based on a dichotomy between ability and disability, including learning and learning disability; and a paradigm of literacy that is based on a continuum of abilities including learning abilities. The quest for an operational definition of learning disability comes from the paradigm of norm-referenced assessment—a dichotomy of able versus disabled. The lack of an operational definition is exasperated by the heterogeneity of theories upon which current diagnostic tools are based. The incongruence of the paradigms and the shift or transition from the norm-referenced dichotomy to the criterion-referenced continuum affected the implementation of both phases of LEAD 2000.

Learning in elementary, secondary, and postsecondary school contexts is usually assessed, or operationalized, by outcome or summative measures that are norm-referenced. Since the arrival of Public Law 94-142, learning disabilities in elementary and secondary contexts are often operationalized by discrepancy formulae that involve a comparison of a norm-referenced assessment of an individual's achievement with a norm-referenced assessment of an individual's potential. There may or may not be an undue influence of availability of funding and financial
responsibility for providing services in the adoption of a discrepancy formula. The "supply and demand" of resources for those students whose learning outcomes are not consistent with the norm is influenced by socioeconomic factors. Why some students' learning outcomes are not consistent with the norm, what is the norm, and what socioeconomic factors influence those learning outcomes are questions subject to debate. In any case, the explicit decision to adopt a discrepancy formula may result in a number of implicit decisions.

"Eligibility" for the regular education program (i.e. mainstream) and admission for students is a given until some discrepancy between the individual's achievement in the academic context and the individual's potential is suspected. Eligibility for the "regular" education program is opened for discussion when a student is referred for assessment (assuming parental approval) under the due process and outcomes governed by the IDEA. Depending on the particular discrepancy formula applied, a student may be found to be no longer eligible for the "regular" educational program. The quality and quantity of participation (i.e. propriety of placement) in "special" and admission to "regular" educational programs is then determined and detailed in the resulting individual education plan. Free, appropriate public educational placements are mandated by the IDEA. The propriety of private educational placements and the determination of who bears the financial responsibility may be determined by due process.

However, the expertise of the examiner may be discounted with respect to the selection of testing instruments, or tools, used in assessment governed by the IDEA. Moreover, expertise in assessment requires qualitative judgments of the examiner with respect to the selection assessment tools most appropriate. The tools used may be determined not by the examiner's clinical judgment but by the discrepancy formula. Quantitative data to be used in the determination of a discrepancy may be gained at the expense of qualitative data lost regarding the strengths, weaknesses, and possible impairment of the major life activity of learning. The assessment itself may de-emphasize the clinical judgments of the examiner based on experience and intuition in interpretation of test data.

When discrepancy formulae are applied in the determination of learning disabilities, a dichotomy of norm-referenced ability and disability is implied with respect to learning. In other words, a dichotomy of learning able and disabled is presumed rather than a continuum of the learning ability. Test data, given a particular discrepancy formula, may be used to determine a learning disability rather than if a learning impairment exists and, if so, if that impairment is significant enough to be disabling given the context or environment.

The Rehabilitation Act of 1973 is applicable to vocational and educational contexts. Section 504 presumes a continuum of norm-referenced abilities that includes the major life activity of learning. Technological support may enhance the goodness of fit between the context and the individual. Strengths, weaknesses, impairments, and disabilities are points along that continuum. A dichotomy of ability and disability is incompatible with the range of human behaviors or major life activities. The propriety of basing placement and eligibility decisions in educational contexts on the statistical significance of quantitative data, without recognizing the practical significance of
those decisions, is questionable. Fortunately, the due process includes planning and placement teams and some opportunity for the consideration of qualitative data such as parent and teacher observations. The application of a discrepancy formula should not distort that due process.

However, the LEAD 2000 Congress determined that millions of Americans have reached adulthood but are unable to demonstrate mastery of the major life activity of learning as implied by outcome or summative measures of literacy. The National Literacy Act of 1991 defines literacy as the ability "to read, write, and speak in English, and compute and solve problems at levels of proficiency necessary to function on the job and in society, to achieve one's goals, and develop one's knowledge and potential".

Moreover, the National Literacy Act of 1991 is not based on a paradigm that recognizes a dichotomy between ability and disability with respect to the major life activities of learning as operationalized by reading, writing, speaking in English, and computing and solving problems. The National Literacy Act of 1991 is consistent with the paradigm shift operationalized by the Americans with Disabilities Act of 1990. The norm-referenced dichotomy of able and disabled has been replaced by the criterion-referenced monolith of equality of opportunity to participate in the ultimate context -- American society. Eligibility to participate in society is a given. Proficiency is measured according to the criteria of qualifications vis a vis essential functions in a specific employment context under Title I of the Americans with Disabilities Act. Once again, the potential of technological support and reasonable accommodations to enhance the goodness of fit of the environment and the individual should be investigated. Therefore, the operationalization of learning disabilities is relevant to educational contexts where the ability-disability dichotomy is in effect. In the pragmatic context of American society, i.e., the context addressed by the Americans with Disabilities Act, the operationalization of learning disabilities is moot. The formulative, qualitative approach to operationalizing literacy has replaced it.

The Americans who have been identified by the LEAD 2000 Congress have not benefited from the norm-referenced, learning abled-learning disabled dichotomy approach to education. Many were not identified via discrepancy formulae. They are not eligible to take norm-referenced tests under nonstandard conditions to earn credentials like the General Education Diploma (GED). However, the Americans with Disabilities Act provides a structure by which ability and qualification may be examined vis a vis specific tasks in specific contexts. Moreover, every American regardless of ability is entitled to an equal opportunity to participate in society and to be a responsible citizen.

By the year 2000, American society wants everyone to possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship, but it is assumed that millions of Americans have reached adulthood as yet unable to demonstrate the ability "to read, write, and speak in English, and compute and solve problems at levels of proficiency necessary to function on the job and in society, to achieve one's goals, and develop one's knowledge and potential". This assumption is not based on a paradigm that recognizes a dichotomy between ability and disability but is consistent with the paradigm shift.
operationalized by the Americans with Disabilities Act of 1990 and the National Literacy Act of 1991. Thus, the inability to demonstrate proficiency in tasks of learning does not necessarily mean that someone is impaired. The inability to demonstrate proficiency to write, speak, compute and solve problems is a necessary but not sufficient condition for disability. The determination of proficiency is not one of statistical significance, i.e., discrepancy, but of practical significance in terms of performing necessary tasks. If the inability to demonstrate proficiency clearly meets the necessary and sufficient conditions for impairment to the point of disability, then the determination of qualification to perform the essential functions on a specific job, with or without reasonable accommodations, is governed by the Americans with Disabilities Act. The observation made at the LEAD 2000 Congress regarding the difficulty in agreeing on an operational definition of learning disability is not entirely accurate. Adults do engage in applied problem solving in a variety of contexts. However, the practical significance of performing necessary tasks under the National Literacy Act is not synonymous with the determination of ability to perform the essential functions of a specific job in a specific context under the Americans with Disabilities Act.

If National Education Goal 5 is to be obtained, a broader framework emphasizing pragmatism over theory has to be established. The National Institute for Literacy will provide that framework. The fiscal realities of the 1990s cannot be ignored nor can the potential contributions of the any American be ignored. Once again, the potential of technological support and reasonable accommodations to enhance the goodness of fit of the environment and the individual should be investigated. Technology should be viewed as a supplement to enable the performance of necessary tasks. Moreover, proficiency in tasks necessary for a specific job may be assessed through a formulative approach rather than a summative until adequate adult education, vocational training, and appropriate learning assessment is available. Proficiency may then be assessed without a definitive determination of impairment or presumption of disability. Therefore, the millions of Americans facing the immediate task of completing a GED should be assessed with technological support and accommodations without a presumption of disability. The GED results should be represented as a formulative measure of proficiency not a definitive determination of impairment let alone disability. This distinction is more than pragmatic. It is imperative given the Americans with Disabilities Act.

Recommendations

In summary, it appears that there are currently available appropriate tools to respond to the crisis identified by the LEAD 2000 Congress with respect to literacy and National Education Goal 5 (forty percent of over forty-three million Americans with disabilities have not completed high school and need access to adult education). New technological tools are being developed.

Given the results of Phase Two, it appears that in-take, screening, and assessments tools are currently available in computer form. However, the expertise of the person using those tools is a significant factor in determining the validity of the implications drawn from in-take, screening,
and assessment. The orientation of the person doing in-take, screening, and assessment affects what tools are preferred if available. Thus, the diversity of the constituencies included in LEAD 2000 implies diverse orientations in the end-users of the products.

Presently, there are in-take and screening tools available that have utility for end-users ranging in expertise. The validity of the implications drawn from the application of those tools is less dependent on the expertise of the user. What is not currently available are assessment tools, computer-based or otherwise, that have utility and lead to implications that are valid which are not dependent on the expertise of the user.

One type of technological tool currently available that has the promise to meet this need is the expert system. According to Kelly (1991), expert systems are software applications which emulate problem-solving by heuristic methods. Such systems eventually generate recommendations or implications that may be subject to validation. Expert systems are currently available for diagnostic purposes in medicine and business. However, the recommendations and implications generated remain subject to the on-going process of validation. Thus, the utility of expert systems developed for in-take, screening, and assessment consistent with LEAD 2000's goals has yet to be established.

Another technological tool currently available but awaiting validation and verification of utility is virtual reality. Participants at the LEAD 2000 Congress discussed this computer-based imaging technology. Virtual reality systems may have the potential to respond to the questions of "game format" and simultaneous processing assessment. This potential is under investigation.

Given the pragmatic orientation of LEAD 2000 and the urgency of the literacy crisis, sophisticated technological approaches do not have immediate utility. "High tech" approaches offer promise but "low tech" approaches are more consistent with currently available human and financial resources.

Therefore, the action agenda recommended by the Congress to develop, promote, and administer standardized, uniform assessment should be implemented. However, the paradigm of the National Literacy Act and the Americans with Disabilities Act should be the basis of a universal understanding of learning and the construction of models of the proficiency, efficiency, and ability of individuals. Moreover, the validity of those models should be evaluated with respect to specific tasks and under specific conditions relevant to specific contexts. The implication then is that the relevant tasks, conditions, and context criteria of proficiency must be established, and assessed, prior to a prescriptive instructional, or remedial response. The context "curriculum" becomes most relevant. Instructional responses would correspond to a continuum of ability to perform those relevant tasks given a continuum of conditions ranging from "no technological support", to "technological support", to "technological support with accommodations without the presumption of impairment", to "technological support with accommodations with the
presumption of impairment", to "technological support with reasonable accommodations with the
documentation of disability." The multiple levels of evaluation, in-take, screening, and assessment
in proportion to the expertise of the end-user that were identified in Phase Two have immediate
utility.

Field-based research must be conducted to grasp the scope and sequence of relevant tasks,
conditions, and context criteria of proficiency. Best remedial practices that are responsive to
those tasks, conditions, and contexts must be identified. Federal funding for adult education
should be prioritized according to the training needs of a volunteer tutoring force and part-time
programs are able to meet the educational needs of adults with learning disabilities, many of
whom require highly trained teachers. Policy must be coordinated for lifelong learning needs and
education of Americans at the local, state, regional, and national levels.
REFERENCES


National Joint Committee on Learning Disabilities. (1988). (Letter to NJCLD member organizations)


APPENDICES
Appendix A
UNIVERSITY OF THE OZARKS
LEAD 2000
REVENUE & EXPENSE STATEMENT
FOR THE PERIOD NOVEMBER 1, 1992 TO OCTOBER 31, 1993

Restricted Revenues

University Matching (Non Federal) $16,966.00
Transfer from Ed Pymt Mgmt Sys 87,701.00
(National Institute for
Literacy Grant)

Total Restricted Revenues $104,667.00

Restricted Expenditures

Personnel $43,628.12
Contractual Services 2,000.00
Staff Benefits 11,753.16
Travel 748.39
Other (Conference Expenses) 26,537.42
Indirect Costs 20,000.00

Total Restricted Expenditures $104,667.09

Net Over/Under Expenditures $$(.09)$$
Appendix B
May 24, 1993

To the Participants in the LEAD 2000 Congress:

The proceedings of the LEAD 2000 conference held in Little Rock should validate the participants' comments regarding the success of the congress.

As was expressed at the meeting, the University of the Ozarks, and in particular, the Jones Learning Center, was pleased to host those dedicated persons who attended the congress. We trust that the experience was well worth your time.

We are most optimistic that the results of the conference will have an impact on future developments in the field of learning disabilities. The three areas identified as needing immediate attention were a standard evaluation instrument, a nationally recognized clearinghouse, and a national training center.

Our hope is that the enthusiasm displayed at the congress can be carried through to the initiation of these projects.

Again, we appreciate your attendance and participation at the LEAD 2000 event.

Sincerely,

Gene Stephenson, Ph.D.
President

pw
Carolyn Whitson, Ph.D., Vice President
Institutional Advancement
University of the Ozarks
415 College Avenue
Clarksville, Arkansas 72830

Dear Dr. Whitson:

After reviewing the materials sent me about LEAD 2000, I want to comment on those aspects of the project which affect our professional interests: sentencing and the criminal justice system, and alternatives to incarceration.

For a number of years, I have been involved as a lawyer and a professional in criminal justice and sentencing issues. However, it is only recently that I have become aware of the disproportionate number of persons within the system who are learning-disabled. Based upon observations, instructions from professionals in the educational field, and a review of some literature, I believe that a significant portion of the criminal population is involved in crimes because of learning disabilities, and that another significant portion is sentenced more severely as an indirect, if not direct, result of its learning disabilities.

I also believe that few people within the criminal court system are particularly sensitive to the problems of the learning-disabled, and few are skilled at identifying, properly referring, and adequately representing the learning-disabled either on the issue of guilt or at sentencing.

I know of no state criminal statutes that make specific, particular reference to considerations to be given to learning-disabled. Statutes do recognize and courts are required to make special considerations for disabilities due to language limitations and impairments such as deafness. Specific provisions don't appear to exist for the learning-disabled.

Insofar as project LEAD 2000 will increase the public awareness of learning disabilities, and help persons including criminal justice professionals better identify those who are learning-disabled, we would certainly endorse the project's goals and
objectives. If LEAD 2000 can add more knowledge about skills enhancement activities and programs of remediation, then it should also contribute greatly to sentencing advocacy and increased use of alternatives to incarceration for persons suffering from learning disabilities.

For these reasons, I write to express the hope that your project will move ahead towards its goal. Please, do let us know if we can be of assistance, or if we can make any contributions to your work.

Sincerely,

[Signature]
Malcolm C. Young

phg
October 18, 1991

Secretary Lamar Alexander
Department of Education
400 Maryland Avenue SW
Washington, DC 20202

Dear Lamar:

As a businessman, I am frequently reminded of the crucial role education plays in America's economic health. We must develop our country economically with the most educated workforce we can produce. If we fail in that regard, I think we will fail as a country and fall to a second or third class status.

I believe that LEAD 2000 is a valuable approach to providing that education workforce. If the millions of Americans who struggle with learning disabilities can be diagnosed and remediated, we will have made great strides toward assuring America's economic future.

Recently, I attended the closing ceremonies of a summer institute conducted by the Jones Learning Center of the University of the Ozarks to help teachers work with the learning disabled. I was most impressed by the quality of the work they are doing and by the impact they are certain to have through LEAD 2000.

Please give this project your full support.

Very truly yours,

Sam M. Walton
SMW/bce

Lamar — They do have a real good program for disabled at the University of Arkansas. I hope we can set up a visit for you to review their educational Goals. We certainly do what I can to help. In fact I will be in back. Take care.
July 25, 1991

The Honorable Lamar Alexander  
Secretary of Education  
United States Department of Education  
400 Maryland Avenue, SW, Room 3077  
Washington, DC 20202

Dear Lamar:

Because I know you share my belief that America's future is only as strong as the education of our people, I am writing to make you aware of a program addressing a serious educational problem.

Since a major cause of illiteracy is undiagnosed or ineffectively remediated learning disabilities (LD), an ambitious effort has been mounted to improve education for the learning disabled in the remaining years of this decade. The immediate goal of LEAD 2000 (Learning Enhancement for Adults with Disabilities) is to improve the resources available to the learning disabled and the professionals who serve them.

Enclosed is a brief summary of LEAD 2000 as well as a detailed description of the project. As the letters in Appendix II of the proposal indicate, support for LEAD 2000 among LD professionals is widespread and enthusiastic.

To expand this work, Congress is proposing an appropriation for a national center for the study of learning disabilities at the University of the Ozarks. I hope you will give it your full support.

Sincerely,

Bill Clinton

BC:kvl:jr
TABLE OF CONTENTS

Statement of Purpose..............................................1
List of Participants...............................................3

CONFERENCE SESSIONS:
I. Introduction..................................................8
II. Definitions and Demographics.................................9
III. Diagnosis......................................................16
IV. Coping, Compensation, and Programs.......................25
V. Implications and Actions.....................................31

LEAD 2000 Congress Resolution.................................47
LEAD 2000 Congress Action Agenda...............................50
STATEMENT OF PURPOSE

The LEAD 2000 Congress met at the historic Capitol Hotel in Little Rock, Arkansas on January 29, 30, 31 of 1993. The purpose of this conference was to address the need for better diagnosis and strategies of remediation for the adult learning disabled as a general segment of the American population. An acronym for Learning Enhancement for Adults with Disabilities, LEAD 2000 is a federally funded project and involves participants who deal with the problems and issues of the adult learning disabled, from throughout the United States.

LEAD 2000 grew out of increasing demands upon the Jones Learning Center of the University of the Ozarks, Clarksville, Arkansas. These demands include an inundation of requests from learning disabled college and university students for testing, as well as the recognition by educators from all over the country of the scarcity of qualified diagnostic centers.

Furthermore, there has been increased recognition of the fact that many learning disabled adults have never been, nor will they ever be, diagnosed or helped. Performing below their capabilities, many of these individuals are becoming social and economic liabilities to themselves, their families, and the state and federal governments.

Therefore, the purpose of LEAD 2000 was to assemble representative LD specialists in order to discuss LD problems of diagnosis, remediation and counseling. The outcome of LEAD 2000 should be action--the development of a model for designing a more effective diagnostic instrument for adults; in short, uniformity and efficiency of diagnosis and remediation.

The following specific Project Objectives were stated in the LEAD 2000 Proposal:

1. To set an agenda for addressing the needs of learning-disabled adults.

2. To increase the ability of those who work with learning-disabled adults to identify, assist, and counsel those whose performance is inadequate.
3. To enhance understanding of the nature of and best intervention strategies to overcome learning disabilities.

4. To strengthen access to services and advances in the field to non-urban and minority populations.

5. To improve learning disabilities services for adults in the work place, military, prisons, welfare agencies, Job Corps, and literacy programs.

6. To achieve a greater understanding of the perceptual and cognitive dysfunctions underlying marginal performance by learning-disabled adults.

7. To review current diagnostic procedures to establish the necessary research for the development of an objective, highly reliable, computer-based instrument for adults.
PARTICIPANTS

Participants in LEAD 2000 CONGRESS were chosen from a wide geographical and professional cross-section. Forty key people directly involved with services to learning disabled adults were invited to attend the conference. Included were advocates for minorities, diagnosticians, leaders in public and private education, state and federal administrators, and remedial/therapeutic specialists. The following persons attended LEAD 2000 CONGRESS:

Ms. Linda Andresen  
Staff Development Coordinator  
RESA III  
Dunbar, WV 25064

Ms. Joan Auchter  
Director of Test Development  
American Council on Education  
Washington, DC 20036-1163

Dr. Kevin Blake  
Pima Counseling Center  
Tucson, AZ 85712

Dr. Norman Brier  
Associate Clinical Professor of Pediatrics and Psychiatry  
Albert Einstein College of Medicine  
Bronx, NY 10461

Dr. Richard Cooper  
Learning Disabilities Consultants  
Bryn Mawr, PA 19010

Mr. Robert Crawford  
President, Life Development Institute  
National Board Member, Learning Disabilities Association  
Phoenix, AZ 85006
Dr. Jean Fleischner  
Department of Special Education  
Teachers College, Columbia University  
New York, NY 10000

Ms. Brenda J. Glass  
Department of Corrections/Department of Education  
New Port Richey, FL 34652

Dr. Blanche Glimps  
Professor of Education  
Marygrove College  
Detroit, MI 48221-2599

Ms. Susan Green  
National Institute for Literacy  
Washington, DC 20202

Dr. Patricia Hardman  
CEO, Dyslexia Research Institute, Inc.  
Tallahassee, FL 32308

Dr. Doris Johnson  
Professor of Learning Disabilities  
Northwestern University  
Evanston, IL 60208-3560

Dr. Rose Kellerman  
Director of Assessment  
Vanguard Academy  
Lake Wales, FL 33853

Ms. Carolyn Buell Kidder  
Reading Disabilities Specialist  
Cambridge, MA 02139-1745

Ms. Sandra Koehler  
Instructional Resource Consultant  
Adult Learning Resource Center  
Des Plaines, IL 60618
Mr. William R. Langner
Educational Program Specialist
U.S. Department of Education
Washington, DC 20024

Ms. Justine Maloney
Board of Directors, Learning Disabilities Association
Arlington, VA 22201

Ms. Sylvia G. McCollum
Education Administrator, Federal Bureau of Prisons
Washington, DC 20534

Mr. Rick McIntosh
Manager, Program Development and Training
The Literacy Initiative
Columbus, Ohio 43215

Mr. Jim Parker
National Coordinator, The Adult Education for the Homeless Program
U.S. Department of Education
Washington, DC 20024

Ms. Nancie Payne
Vice President, National Association for Adults with Special Learning Needs
Olympia, WA 98501-8212

The Honorable Carolyn Pollan
Member, Arkansas House of Representatives
Fort Smith, AR 72901

Dr. Linda Reiten
University of Mary
Bismarck, ND 58504

Ms. Phyllis L. Rich
Adult Education Director of Nevada
Carson City, NV 89701
Dr. Betty Robinson
Professor of Special Education
University of the Ozarks
Clarksville, AR 72830

Dr. Josef Sanders
Modern Education Corporation
Tulsa, OK 74101

Dr. Ron Schopper
Research Specialist
Morgantown, WV 26505

Ms. Mary Ann Shope
Coordinator, Workplace Skills Enhancement Program
University of Arkansas at Little Rock
Little Rock, AR 72204

Dr. John Slate
Associate Professor
Arkansas State University
Jonesboro, AR 72467-0940

Dr. Richard Stiles
Adult Literacy Coordinator
Department of Education
Sacramento, CA 95814

Mr. Barry A. Tronstad
Principal, Ventura Adult Education
Ventura, CA 93003

Dr. Laura Weisel
Manager, Community of Mental Health System Development
Ohio Department of Mental Health
Columbus, OH 43216-1235

Ms. Susan Westberry
Supervisor, BEST Adult Education Program
Maury County Board of Education
Columbia, TN 38401

Ms. Laura Wilcox
Garnet Learning Center
Charleston, WV 25301
Dr. George Yard
Department of Behavioral Studies
University of Missouri
St. Louis, MO 63121

Mr. Glenn P. Young
Board Member, Washington Coalition of Citizens with Disabilities
Seattle, WA 98103

In addition, the following observers from the Jones Learning Center attended the conference:

Mr. Greg Clinebell, Learning Disabilities Assistant
Mr. Jeff Debuhr, Coordinator
Mr. Oscar Gomez, Diagnostic Specialist
Ms. Helen Hoeffer, Coordinator
Ms. Susan Hurley, Director of Jones Learning Center
Mr. E. W. Newlin, Director of Assessment
Ms. Kathy Sexton, Coordinator
I. INTRODUCTION

The Congress began with an introductory session on Friday, January 29, 1993 at 3:00 p.m. This session was led by Vice President for Academic Affairs for the University of the Ozarks and Interim Project Director Dr. Judy P. Alexander.

Giving background information about the project, Dr. Alexander stated that the National Institute for Literacy has made as a priority the special literacy needs of individuals with learning disabilities and individuals with limited English proficiency. Under that priority the University of the Ozarks applied for and received funding for the project.

Dr. Alexander explained that the Jones Learning Center at the University of the Ozarks has been successfully diagnosing and mainstreaming college students with learning disabilities for over twenty years. As a result of the center’s successes, the Jones Center educators decided to organize and to reach out and serve as a training program for other institutions, with input from other professionals in the field. This desire to serve, along with the need for input from others eventually led to the proposal of LEAD 2000.

Dr. Alexander further stated that the Congress portion of LEAD 2000 was intended to be exploratory—an exchange of ideas among experts concerning the current state of knowledge and research, as well as an attempt to develop a consensus of what action should be taken in the future.
II. DEFINITIONS AND DEMOGRAPHICS

Dr. Doris Johnson, Professor of Education at Northwestern University, served as moderator for this session. She began by stating that educators have been working on a definition for the term "learning disabilities" for at least thirty years. She spoke of historical attempts to define and categorize people with learning problems, as well as attempts to "come up with a term that was more homogenous."

Dr. Johnson referred to proceedings from the Association for Children with Learning Disabilities Conference in 1963, at which Dr. Samuel Kirk first suggested the use of the term "learning disability." Johnson opened the discussion by asking for a definition of this term.

For the next hour, the group struggled with the assignment of developing an accepted, universal definition of the term "learning disability." Several issues were discussed, including specific points about which there was general agreement.

- One of the biggest problems is the incorrect assumption that all learning disabilities are alike.
- All learning disabled students have learning styles that differ from one another.
- Adults learn differently than children.
- Both learning styles and instructional approaches must be considered in a definition.
- Adult education is in a state of crisis; only about $200. per person is spent nationally. There is no coordination for rehabilitation, special education, etc. There is no unified system for adult education.
- Learning disabled adults have unexpected areas of underachievement that cannot be explained on the basis of their lack of opportunity to master those areas and in light of other areas in which they have achieved.
- The Americans with Disabilities Act definition of disability is something that "impacts on a major life function."

- It is sometimes difficult to separate the issues of poverty from learning disabilities.

- We need to look at the complete person even though we are looking at a specific learning disability.

- There is some homogeneity. There are some characteristics similar in individuals with learning disabilities.

- One of the simplest definitions is the following: If you say that you are learning disabled, then you are.

- The homogeneity issue should be seen in terms of dysfunctional perceptual processes.

- Is there really a unique subset of under-achievers or low-achievers that can be identified as learning disabled?

- We do not have adequate language to differentiate adult types of learning from adolescent types of learning.

- Although definitions have to do with inclusion, they also serve the purpose of exclusion, thus providing other barriers to services.

- Does a definition for "adult learning disabilities" have to focus solely on illiteracy or is illiteracy one subset of the problems of the adult with learning disabilities?

- This conference will focus on literacy only as a subset of the larger problems that those with learning disabilities have. "Literacy" must be defined in order to define "learning disability."

- "Literacy" can be defined as "an individual’s ability to read or write or speak in English or compute and solve problems at levels of proficiency necessary to function in society, to develop one’s potential and one’s goals."
- Where is the line between learning disabilities and mental retardation? Is there a line? How do we deal with that in definitional terms?

- We do not know how many learning disabled adults are in this country. We do not know how many are undiagnosed.

- We should think of defining learning disabilities in terms related to the services and accommodations necessary for those individuals to achieve the personal goals which are in the range of their abilities.

- Also pressing is the issue of identifying learning disabilities in a group of adults who did not receive appropriate services during childhood.

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After a brief intermission, Dr. Alexander reconvened the group and requested that they attempt to answer questions previously outlined for Session 1:

1) Is there a consensus on the definition of learning disability?

2) Is a consensus necessary before proceeding further?

3) Who are the learning disabled adults?

4) How many are there?

5) Where are they?

6) What other demographic issues are significant?

The group agreed to accept the definition of literacy from the Adult Education Act; some added that the importance of this definition is that it gives a basis in legislation. One stated, "as you define, so you measure."
But a broader definition of "literacy" includes the basic skills critical to success in speaking, listening, writing and communicating in general. A definition of "literacy" is critical as specialists move ahead with the Adult Education Act in various programs.

A caution was raised that "illiteracy" and "learning disabilities" are not synonymous terms. Whereas some characteristics overlap, the definition of "literacy/illiteracy" and the definition of "learning disabled adults" must be considered as separate but related.

This definition of "literacy" has a positive impact upon people who consider themselves illiterate, because it deals with levels of proficiency, not ability. If "learning disability" is defined similarly, it will have much the same impact upon people.

Dr. Johnson returned to the notion of class inclusion. "Literacy is a category of behaviors," whereas "learning disabilities" can be defined in terms of "who is in the box and who is out."

A variety of responses ensued:

- The term "learning disabilities" does not refer to mental retardation. It is not due to "substandard" IQ.

- In psychiatric terms, it is not a low achievement or lack of expectation due to a mental disorder.

- Adult LD can be seen in terms of unexpected failure to learn.

- Although issues of race, class, and economic status have enormous impact upon what is considered "expectation" in learning, these factors are not considered learning disabilities.

- A learning disability is a neurological dysfunction, an intrinsic characteristic that affects the student's ability to learn. Frequently, an individual with a learning disability can be diagnosed through science and technology; sometimes not. So the neurological dysfunction may be only presumed.
- One intrinsic neurological deficit is visual perceptual memory. This affects the adult with learning disabilities in literacy because he cannot remember what a word looks like, cannot spell or decode it.

- It is necessary to look not only at the definition but also at the intervention teachers should be using, because we delude teachers into trying to do learning disability types of intervention with people who are culturally different or speak a language other than English.

Dr. Johnson stressed the fact that "learning disabilities" is not synonymous with "under-achievement." She asked the group to compile a definition of the term "adult learning disability." They agreed on the following points:

1) Lack of achievement of life’s goals from an adult standpoint.

2) Intrinsic rather than extrinsic.

3) Unexpected levels of performance and variation of levels of performance.

4) A heterogeneous population with difficulties in reading, writing, computation, and oral language.

5) Academic as well as social difficulties. (Can include critical thinking skills, social skills, and employment issues.)

The group agreed to avoid the term "problem" in the definition, because the term "disability" shows significant interference in achieving life’s goals.

The term "intrinsic" is frequently preferred over "neurological," because often these problems do not show up on EEG’s and other tests.
The group agreed that there is a difference between screening and diagnosis, saying that the specialist screens for tendencies, or for the generic category, and then fine tunes that with the diagnosis. The group also agreed that there is such heterogeneity that there are no clear cut markers or characteristics. Intelligence can be used as one marker; reading comprehension is another.

In defining what unexpected levels of performance might be for adults with learning disabilities, Dr. Norman Brier, Associate Professor at the Albert Einstein College of Medicine, suggested using "applied or functional academics as one polarity and at the other polarity either intelligence and/or a subset of strengths or some combination thereof. And then what is unexpected is that there's a discrepancy between those two polarities."

Some participants objected to the use of IQ tests, saying that dyslexics and foreigners are at great disadvantage. Dr. Patricia Hardman, Director of the Dyslexia Research Institute, added that dyslexic individuals lose 20 to 30 points in IQ scores from childhood to adulthood. Or adults who have been away from school for a number of years may not score accurately on IQ tests.

The Congress agreed on several points regarding characteristics of individuals with learning disabilities. First, those with learning disabilities are not primarily globally retarded. Second, there appears to be a genetic link and therefore the condition seems to be multi-generational. Also, there was substantial discussion about learning disabilities and social condition. While the group agreed that one's social condition may influence the probability of having a learning disability, there was disagreement regarding whether social condition was itself a characteristic of learning disabilities. Some participants argued that identical social characteristics may be found in children and adults from both poor and wealthy environments and thus are not directly indicative of learning disabilities. Others argued that poverty and lack of access to appropriate education were often not the cause, but a symptom of learning disabilities.

In regards to testing, what is effective and accurate? Dr. Ron Schopper, former Director of Research at the Jones Learning Center, suggested, "something that can be administered efficiently,
cheaply, and objectively...a series of neuro-diagnostic tests...put on lap top. Put them in the clinics, and you have a shot at being very objective and getting at the intrinsic deficits." If learning disabilities are intrinsic, specialists can test in "a very objective, very consistent way. If there is something wrong inside the individual’s brain that is not letting them process information, with today’s technology, that can be assessed."

In closing the discussion, Dr. Alexander read the definition from the National Joint Committee on Learning Disabilities:

"Learning disabilities is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning and mathematic ability. These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction and many occur across the life spans.

"Problems in self-regulatory behaviors, social perception and social interaction may exist with learning disabilities, but do not by themselves constitute a learning disability. Although learning disabilities may occur concurrently with other handicapping conditions, for example, sensory impairment, mental retardation, serious emotional disturbance or with extrinsic influences such as cultural differences, insufficient or inappropriate instruction, they are not the result of these conditions or influences."

Dr. Alexander then asked, "Is there consensus in this group on that definition?"

Dr. Johnson indicated that the most difficult part is the application of that definition to adults, and added, "Many problems with definition that were raised in this session have to do with applied problem-solving and things related to the context in which the learning disabled person lives."

The session adjourned at 5:00 p.m.
III. DIAGNOSIS

The LEAD 2000 Congress reconvened on Saturday, January 30, 1993 at 8:35 a.m. and was chaired by Dr. Laura Weisel, Manager, Community of Mental Health System Development, Ohio Department of Mental Health.

Dr. Weisel chose to divide the large group into several smaller ones, instructing them to look at past historical achievements in the assessment of learning disabilities. She stated that by acknowledging the past the group could then move forward collectively toward predicting future trends. She added that she wanted the group to fashion a "unified acknowledgement of where we've been, what are the trends, so that we don't create another box, but learn from it in building a new paradigm."

Dr. Weisel asked each group of five or more individuals to draw a time line, listing assessment trends or "key markers: significant events, milestones, highlights, activities about assessment."

Members of the conference split into separate groups and reconvened thirty minutes later. The first group to present its historical time line was led by The Literacy Initiative Manager of Program Development and Training, Rick McIntosh, who disclosed the following outline:

During 1950's--
- I. Q. testing versus achievement scores, standard for labeling a person "learning disabled"
- Cultural bias in the identification of the learning disabled, a pertinent issue

During the 1960's--
- Jensen Report, "racial superiority"
- Civil Rights Act, precursor to several federal acts
- UPI Study (better schools project)
- Introduction of term "learning disabilities"
- ITPA (Illinois Test Psycho-linguistic Ability)
- The National Assessment
During the 1970's--

- Precision Measurement (a behavioral measures assessment that used a linear model)
- The Wepman Measurement
- Vision and hearing function screens introduced into learning disabilities assessment
- Rehabilitation Act of 1973, revised in 1976
- Public Law 94-142 (the education for all handicapped children act)
- The London Procedure (movement toward non-clinicians diagnosing, and concept of screening devices versus actual diagnostic devices)
- The Woodcock Johnson Psycho-educational Battery
- IQ tests abandoned in some states and in federal prison system

During the 1980's--

- Concepts of vision therapy and vision screening to distinguish learning disabilities from other difficulties
- Recognition of adults having learning disabilities
- Expansion of Adult Education Act
- Jobs Legislation
- Job training programs (support in an employment environment)
- Expanded cultural awareness into adult and learning disabilities education
- Learning disabilities programs less clinical and more functional
- Federal corrections program made mandatory literacy a standard; learning disabilities specialists hired
- Re-education of reading specialists who did not believe in existence of learning disabilities
- Collaboration and cooperation emphasized by both federal and local governments
- Development of competency-based life skills assessments
- The introduction of the PET scan or the MRI, to look at the concepts of diagnostic work

During the 1990's--

- English as a Second Language and learning disabilities became an issue
- Americans with Disabilities Act introduced
National Literacy Act and Work Place Literacy
looking at concept of LD adults in work place
- Computer-based assessments
- The IDEA (Individuals with Disabilities Education Act) enacted
- Mandatory Transitional Planning enacted

Next, Ms. Carolyn Kidder, reading disabilities specialist, presented her group's time line in terms of milestones in research or treatment of learning disabilities:

- In the 1920's dyslexia as a neurological problem identified by Dr. Samuel Orton at Massachusetts General Hospital.
- In 1949 the Orton Dyslexia Society (a parent and professional organization to promote research and information dissemination) founded.
- In 1963 Learning Disabilities Association founded; attention usually given only to children K-8; widespread belief that learning disabilities outgrown.
- In late 1960's adults admitted to some classes at Massachusetts General Reading Clinic for Dyslexics, using Orton-Gillingham methods.
- In 1970-71 first colleges addressed learning disabilities problems in students.
- In 1979 discovery that Orton was correct; cellular anomalies and disorganization of the left temporal lobe of people with reading problems discovered. (Subsequent brain dissections found cellular differences; extremely liberating for the whole field of dyslexia because supported Orton's theories. Critical, because researchers could not obtain hard physiological evidence of neurological impairment by means of EKG or any neurological tool of a medical nature.)

Ms. Justine Maloney, Learning Disabilities Association Board of Directors member, presented her group's discussion, largely in terms of testing:

- Neurological damage assessed as far back as the Civil War and the work of Broca.
- In the 1950's experimental testing by Frank Wren (whose assessments were incorrectly taken as definitive answers).
- In 1963 specific term "learning disability" created.
In '70's a shift from clinicians trying to assess those with learning disabilities to schools trying to absorb them.

- Realization that learning disabilities are not outgrown brought about accommodative services, academics in colleges, vocational rehabilitation and job training partnerships.
- Adult Education Act of the Vocational Rehabilitation Act included "learning disability" as a "disability" and as a "functional disability," which could be served.
- In 1975 Public Law 94-142 provided education for all children; set up evaluation of children (but not necessarily adults).
- After Department of Education created, problem of how children with learning disabilities to be served assumed new stature.
- Other learning disabilities services have resulted from the Adult Education Act, Adults with Disabilities Act, and National Literacy.

Last, Dr. Norman Brier presented his group's discussion, largely in terms of legal assessment and definition:

- Initially the focus of law was on elementary school children; this emphasis moved to adolescent, to preschool, and then to adult.
- The purpose of assessment was addressed--Is formal or informal assessment more significant? What should be assessed? What should the focus be?

Next, Dr. Weisel assigned the conference to break into their smaller groups again, this time discussing future trends. She indicated that each group should identify what they consider to be the top three trends and their impact. The resulting information was presented to the larger group.

Mr. McIntosh represented his section, which focused on frustrations that they deal with:

- A lack of dissemination of information. Practices occurring in Washington, Oregon and Ohio are not shared. A clearinghouse or some efficient means of sharing information needs to be created.
- A lack of resources (money, training, personnel), resulting in some of the most difficult students being served by the least trained—volunteers.
- A lack of learning disabilities assessment techniques for teachers who need them.
- Issues of confidentiality.
- A need for educators to take responsibility for helping learning disabled students become self-advocates to receive the kind of testing and training they need.
- The cost of assessments and of getting services for people with learning disabilities.
- The continual cultural and racial biases of some assessments and services.

Of these negative trends, Mr. McIntosh’s group condensed information into three top trends:

1. "There need to be comprehensive integrated programs that include a vocational training component, academic component and assessment component, a remediation component and then a transitional component so that we’re taking a person from beginning to end."
2. "There is now a major awareness of the need for accessible assessments tied to remediation and accommodations."
3. "Lay persons are now doing more of the quick screening, so lay persons are more involved in the field."

Mr. McIntosh added his "hope that there’s an increased awareness in possible funding from the Executive branch based on some of the things he talked about in his campaign—President Clinton—about re-tooling, retraining the work force with Robert Reich and his thoughts on training."

Ms. Kidder’s group likewise included frustrations, as well as suggestions:

- Formal assessment is expensive. "It’s a Catch 22. You need funding to give the formal assessments, which you don’t have. Yet, you need the formal assessments so the funders will fund you to provide services for the LD client."
- Formal assessments are too time-consuming and teachers do not agree on the testing instruments to be used.
- In terms of informal screening, there are no effective simple assessments. The informal assessments available are not normed.
- Information on latest developments is not well disseminated.
- Psychologists need to give concrete suggestions on how to translate a diagnosis into remedial techniques. (Many teachers and tutors do not have training to make that translation.)
- Every adult entering literacy centers should be screened for learning disabilities; ideally, they should be screened for hearing loss and vision problems, also.
- The conflict between schools over money results in lack of assessment where it is needed.
- Development money goes almost exclusively from the government to universities, rather than directly to adult literacy programs or the public schools.

This group then focused on four major positive trends:

1. Computerization of assessment techniques. (For example, Carolyn Pollan's computerized and normed assessment in Arkansas.)
2. Learning disabilities specialists or consultants being hired to provide specialized advice and support.
3. Adults entering a literacy center being screened for learning disabilities.
4. The implementation of a self-directed individual adult learning plan in which adults are in charge of individualizing services in the literacy center for themselves.

Ms. Joan Auchter, Director of Test Development, American Council of Education, presented her group's list of frustrations:

- Lack of definition due to a lack of recognition and acceptance of the field of adult education.
Lack of communication among educators and professionals who do the neurological screening. The diagnostician and the instructor need to work together. Literacy professionals are not allowed to spend money where and how it is needed. Politicians appropriate money without consulting professionals—who need a unified political voice.

Both the issue of learning disabilities as a subset of literacy and the issue of the civil rights of the learning disabled adult need to be recognized and addressed.

We need a "Wal-Mart assessment... a one test fits all." (A single valutative program so that client does not have to be re-evaluated by/for each program for which he/she applies.)

Then Ms. Auchter presented the group’s list of trends:

1. A change in assessment, getting away from neurological assessment in favor of portfolio or informal assessment. Movement toward a transdisciplinary team (neurologist and instructor) approach.
2. Greater recognition and awareness of adult learning disabilities, but no increased funding for implementation of services.
3. Movement toward computerized assessment. (Yet some learning disabled adults may have difficulty working in that environment.)

Next, Dr. Brier presented his group’s list of frustrations:

- Inability of teachers to interpret test results and use them effectively to assist learning disabled clients.
- Many tests lacking a criterion-oriented focus to link testing to intervention.
- Lack of money for assessment.
- Inability to communicate with the client what the tests mean; imprecise language confuses client about assessment.
- Refusal of some people to accept LD as a real diagnosis.
- Mismatch in the language of the instruments and the language of the curriculum.
- Use of severity as the only criterion in diagnosis.
- Different criteria and different eligibility requirements used across agencies.
- Shortage of tests in certain areas, so people tend to test only what they are familiar with.
- Tendency to leap too rapidly from test findings to conclusions.

This group discussed the following three major trends:

1. The use of assessment with adults to exclude rather than to include. The use of screening approaches rather than diagnostic approaches.
2. The use of computers. Not all adults may be able to use this approach, and some areas of importance may be ignored.
3. An increase in psychometrically sound instruments, an increase in the use of operational definitions, and an increase in the use of criterion reference tests.

In closing this portion of this session, Dr. Weisel discussed trends that she has observed:

1. Empowerment. Placing value on the individual. The persons with learning disabilities "are the experts of who they are, how they live, and how they learn."
2. Customer service and learner outcome. Policy makers and funders are concerned about the high drop-out rate in literacy programs and are looking at the learners not "as a unit of service but as individuals" for whom we provide a service.
3. Community support. Looking holistically at formal processes, such as how policies are developed by organizations to service individuals, and informally, such as how important families and community networks are in supporting adult learners and in helping them achieve.

As a final assignment, Dr. Weisel asked the entire group to consider the following questions. "In one or two words, what is your vision of assessment in the year 2000? What do you think it should be? What do you want it to be?"
Individual responses follow:

- Transdisciplinary
- A valid instrument
- Used by holistically trained persons
- Star Trek clients (Run them through an assessment machine that will analyze everything.)
- Universal kindergarten screening
- Easily administered
- Leads to services
- Self-directing, diagnostic, descriptive
- Easily accessible
- Accepted, available, affordable, and covered by medical insurance
- Technological
- Virtual reality and real life
- Strength-based model
- Adaptive performance measure
- Uniform and standardized
- Wider ranged screening
- Assessment that leads to services that lead to outcomes
- Universal in adult literacy program
- Teacher administered
- Expected components of NHSS (National Human Services System)
- Simply computer based
- Free of racial and cultural bias
- Established for presenting needs
- Intensity of service
- Applicable to life
- Data base (and informal data)
- Comprehensive and multi-stage
- Meets learner's self-stated goals
- Does not expire in three to five years
IV. COPING, COMPENSATION, AND PROGRAMS

The moderators for this 2:00 p.m. session were Dr. Richard Stiles, Adult Literacy Coordinator, California Department of Education and Ms. Nancie Payne, Vice President, National Association for Adults with Special Learning Needs. After briefly reviewing the context of the conference thus far, Dr. Stiles announced that the afternoon session was concerned with "What do we look at? What is the content?"

"The most powerful reinforcer for any kind of learning...is knowledge of results....Knowledge of results has to be meaningful to the person that is to receive it and then process that information so that it is worth something."

Dr. Stiles made additional points in his introductory remarks:

- Test results, however looked at, are just pieces of information. Why we collect it, how we collect it and what we do with it are of critical importance.

- The timing of feedback of test results is critical to learners in terms of how they internalize and use it. Teachers or informers must have sufficient time to give feedback, while learners must be receptive, with feedback being understandable to them, in their points of reference, and at their pace. Teachers must be able to make these kinds of accommodations to be effective.

Ms. Payne added that the following questions would be pared down to concentrate on the most important ideas:

1) How can employers be enlisted to assist in making adjustments to help learning disabled adults cope in the workplace?

2) What on-the-job services are needed to improve literacy rates among learning disabled adults?

3) How can we build effective programs to meet the needs of the learning disabled adult population?
4) What definitions are needed before disability-specific programs can be structured?

5) What delivery systems must be facilitated before programs can effectively reach the targeted populations?

The first question refers to the employer, but Ms. Payne and Dr. Stiles wanted to concentrate more on what the learner needs so that he/she can be successful.

Ms. Payne made the following points:

- "What steps need to happen in between? What assessment information do we need to build the right process so that the individual can be effective?"

- "Most employers only want to generalize with us that the goal is some level of self-sufficiency and some appropriate training or some level of employment."

- Persons who have literacy needs, as well as the learning disabled, have to be able to advocate for themselves.

- Often we are trapped into continuing the cycle of providing the accommodation without the explanation, without the facilitation that helps the student move on to the next level of greater self-sufficiency.

- "What would the assessment contain or what elements will it have that allows us to do the prescriptive things we need to do; that allows the student to understand how those prescriptive things interact with their learning process in our classrooms or in the literacy program or at the next juncture; and how do we convey that information if we are working with it literacy-wise to the next juncture? What is the next juncture, and how do we get those individuals to participate and to buy in and to understand where we are coming from?"
"As an employer, it is important to me to have a productive and effective worker, who understands safety hazards and can critically think. This employee will have to show me how to accommodate his or her learning disability; otherwise, I will be on the defensive or at a loss."

Dr. Stiles added his views:

- Looking at all of the information we need about the learner and the learning process, often we find that we do not have time left to teach. Teaching and testing must be "seamless"—totally integrated such that each builds on the other in enabling lifelong adult learning to be established.

- We are remiss in giving students information about their way of learning; with this information they can make their own independent accommodations and be better able to market themselves to those who can thus provide access to where they desire to be—school, the workplace—thus becoming independent learners and workers—productive, efficient and safe.

- We have much information that the teacher needs to know; it would be helpful to specify pieces of knowledge that are most essential.

- In addition, we must keep in mind those people who pay the bills—the policy makers and the general public, who vote for certain initiatives. What information do they need to know?

Then Dr. Stiles asked the group to consider the following question:

"What does the assessment need to include in order to prepare the student in literacy programs for the next step? That next step could be a higher level of literacy training. It could be employment training. It could be on the job, to maintain that job or go to a higher level of employment or education."
The participants of the conference divided into four groups. Each group, in turn, took on the perspective of students, teachers, employers, and policymakers. Members of each group recorded data as they considered Dr. Stiles' question from four different perspectives.

After the small-group exercise, the conference continued. Representing the students, Ms. Kidder presented that group's findings.

When approached with the idea of taking these tests, as students we need to know the following:

- Why the testing is being done, in very specific terms;
- How the testing will be used, because we fear it will be used as a weapon against us;
- If an employer will be able to see it (because he may be able to find out more than we want him to know);
- What the assessment means in terms of what we can expect in accordance with our life's goals as well as a plan of action coming from the assessment (This would include jobs we are best suited for, what our strengths are in the learning process as well as potential employment.);
- Where do we go to find education and jobs that match our needs as a learning disabled person; we need specific referral lists along with guidance on how to work the system;
- What our diagnosed disability is (explained in clear, jargon-free terms);
- What our rights are;
- How we can appeal the assessment, or get a second opinion, if we disagree with the assessment;
- Who is going to pay for the assessment;
- How the assessment will be scheduled;
- How we may have copies of the assessment in our possession.

Representing teachers, clinicians and service providers, Dr. Richard Cooper (Learning Disabilities Consultants) summarized what these specialists need:
- Staff development (so that they have an understanding of learning disabilities, as well as other disabilities, such as emotional problems, along with cultural differences);
- Specific, jargon-free instruction about the instruments used in assessment (so that they understand what this information is and how to use it);
- An understanding of learning styles and different techniques developed to help those with learning disabilities;
- Information from the assessment about the student's strengths, weaknesses, potentials, goals, competencies (as compared with those qualities of other people with the same goals);
- Collaboration with other teachers, other providers;
- A willingness to change and to adapt to meet the needs of students with learning disabilities (since there is so much turnover in adult education, we need more full-time providers to avoid having to train people over and over again);
- Teamwork (so teachers can experience process and interaction);
- Accountability.

Representing the employer, Dr. Linda Reiten (University of Mary) summarized her group's concerns as questions about three major topics: cost, accommodations, and other.

- What are the advantages to hiring this person?
- What happens if I do not agree?
- Where can I purchase equipment needed to accommodate this person?
- Where can I buy training?
- Is it tax deductible?
- Do I get a tax break for hiring a person with learning disabilities?
- What about cost quality control?
- What is the return for helping out with the disabled?
- What if the union does not agree?
- Can I legally adjust the pay for less than full-time rates of work?
What kinds of accommodations do I have to make?
- What specific accommodations does this person need?
- Does the assessment tell me about the employee’s strengths and weaknesses in language I can understand?
- What about job coaches for those already employed?
- What kind of jargon-free support will I have?
- Is there a hot line for help with this person?
- What kind of staff development is provided for my other employees who are non-disabled but who will be working with this person?

Representing the policymaker, Mr. Robert Crawford (President, Life Development Institute) presented the following information from his group:

- Demographic information is very important.
- Assessment must be a valid instrument with additional material for adults.
- Assessment must offer flexibility.
- Language of assessment must be such that the policymaker or administrator can sell it to constituency to receive funding or continued funding.
- Assessment should be set up efficiently to capture and share information.
- A plan of action should be set up for each person, as well as support services for that person.
- There should be a projection of how long it would take for this person to see improvement.

The conference was adjourned at 4:30 p.m.
V. IMPLICATIONS AND ACTIONS

The LEAD 2000 Congress reconvened on Sunday, January 31, 1993 at 8:30 a.m.; the meeting was opened by Dr. Judy Alexander, Interim Project Director.

Dr. Alexander discussed the advisability of a resolution resulting from the work being done at the conference. She emphasized that written into the University of the Ozarks grant was "the notion of a national congress from which many people could benefit: many different agencies and many different universities. A great deal of what we were about in that grant was to bring this group together so that everyone attending would take away ideas of value, not that the project was something from which the University of the Ozarks singularly would have benefited."

The proposed resolution grew out of a suggestion by Dr. Patricia Hardman and others. At this time, Dr. Hardman presented a draft to the group, which then revised and edited it. (See "LEAD 2000 CONGRESS RESOLUTION," pp. 47-49.)

Next, Dr. Alexander asked Mr. William R. Langner, Educational Program Specialist, Office of Vocation and Adult Education for the United States Department of Education, to lead a discussion of the following issues, along with others "relevant at this point."

1) What are the program implications for meeting the needs of learning disabled adults?

2) What are the financial implications of this literacy effort?

3) How can the needs of learning disabled adults best be met in the next century--research, political action, dissemination of information, funding, creation of services?
Mr. Langner began by saying, "I certainly applaud what has been done the past day and a half here in Little Rock. We may not realize what a mixed group of policymakers, researchers, practitioners, state officials, federal officials, and universities are here. You are a very powerful group addressing the subject of learning disabilities for adults, and you are very much on the cutting edge of massive changes in education in the nation for adults.

"I am not aware that a meeting addressing adults with learning disabilities of this magnitude has been held anywhere else in the United States, so bear in mind that you are making history here."

Mr. Langner then asked that members of the conference contribute their ideas about issues raised.

Ms. Susan Green, National Institute for Literacy:

"The Institute has just had a Presidential established board put into place just before the change in the Administration. What that board has been working on is setting its priorities for the people, and those priorities involve an enormous amount of cooperation at the federal level.

"The Institute supports the National Literacy Act in accordance with the law, and will serve as the hub of a coordinated body for all the literacy objectives in the nation. State resource centers, also set up as a result of the act, will be state and local arms of that network.

"The Institute was created not to be another grant-making agency and not to do what is already being done by a variety of other agencies now. Rather, the Institute was created to do what no other agency can do. By virtue of our interagency funding and support, we see our function as pulling things together in a way that has never been accomplished before, as well as trying to get more resources focused on literacy from every other agency.

"We want to be seen as a group that can solicit support from every other group."
Ms. Sylvia McCollum, Education Administrator of Federal Bureau of Prisons, addressed Ms. Green:

"Since the prisons are frequently in very isolated areas, we are unable to recruit special education teachers or 'experts' in special learning problems. We have over 600 full-time civil service teachers at federal prisons across the United States.

"We have in-service teacher training programs for thirty or so teachers at a time, and we cover many different subjects. The subject of learning disabilities may take only one or two hours.

"Is it possible to envision a mobile local service to the isolated schools--where once or twice a year expert services would be available to help identify problems and recommend programs? Prisons are not the only isolated schools that would benefit.

"By policy, every federal prison is required to have a special education teacher. But we absolutely cannot recruit them. So I would like to focus in the future on delivering LD expert services and/or training to the isolated schools. We are not asking for a free service, for we are able to pay. We just want the services to come to us."

Ms. Justine Maloney, Board of Directors, Learning Disabilities Association (Arlington, VA), also addressed Ms. Green:

"I think that it would be a proper recommendation for the Institute to develop a packet that would be used particularly for adult learners. Since there is no federal mandate to teach adult learners, the Literacy Council should focus on this group. And modern technology should be brought not only into assessment but also into the training of teachers."

Mr. Langner then suggested going around the room clockwise, in order for each person to assess what he/she had learned during the conference, what had been contributed, and in which directions specialists and educators need to go in the future.
Mr. Jim Parker, National Coordinator of the Adult Education for the Homeless Program:

"The National Literacy Act of 1991 established state literacy resource centers. This has tremendous potential. I am hoping that a year from now we will be able to say that the National Institute for Literacy and the state literacy resource centers and all the resources and opportunities have developed. In addition, the states must send at least 10% of their federal adult education act money for staff training—as another provision of the new legislation.

"There is available more money, more potential, more agencies to do these kinds of things than we’ve ever had before; it is the law. I think in working together all these entities can be successful, and they are on-line now. They can create a network, and it is up to you to see that learning disability is part of the agenda for that network."

Ms. Sandra Koehler, Instructional Resource Consultant, Adult Learning Resource Center (Des Plaines, IL):

"We just completed development of eight Adult Basic Education and English as a Second Language training packets for teachers of literacy for the U. S. Department of Education (Pelavin and Associates). The package is set up with a three-hour training session, in order to teach theory. We demonstrate teaching techniques and give the teachers an opportunity to practice.

"After the teachers implement the program for about a month, we meet again and talk about the implementation.

"The packets were widely field-tested and then were presented to training groups throughout all fifty states and several territories. We had a very positive response to it all."

Mr. Parker added:

"We are hoping that staff training will be on the agenda for national funds every year for many years. And learning disabilities is clearly on the long list. It did not make the short list, because so much would have to go into creating that training packet. There really just was not the time, and at that point, not the money. We hope that it will come about and certainly want you all to be involved in that development."
Ms. Linda Andresen, Staff Development Coordinator, RESA III:

"Assistance to adults is coming from volunteers and adult basic education instructors, who are primarily part-time. Consequently, although staff development has adequate funds to provide training, we do not have a consistent, full-time professional workforce to train. We must have more full-time, fully trained adult education personnel on the front lines if we hope to meet the needs of adults with special needs in the future."

Ms. Mary Ann Shope, Coordinator, Workplace Skills Enhancement Program, Arkansas Institute for Economic Advancement, University of Arkansas at Little Rock:

"I spend approximately 30% of my time with plant managers, business owners, personnel managers, and training managers, helping them set up educational programs in the work place.

"One topic always discussed is the possibility that some employees may have learning disabilities. In general, both labor and management haven’t thought about this development, and want more information about learning disabilities and how the educational program will be affected.

"It would be helpful to have a packet of information, written in the language of business, that explain learning disabilities and dispel myths. The information should also target the need for different kinds of learning materials and methods in training programs as well as the topic of pacing and developing learning strategies.

"If we are to ask for additional time and additional materials for an education program in the work place, employers want to be convinced of the need for this extra expense. The packet could help serve as evidence of the need. Even ‘testimonials’ would be beneficial.

"Business and labor people are not educators. It is our task to provide them with information that will allow them to make the best decisions regarding their educational needs and programs. Learning disabilities simply cannot be overlooked if one wants to be successful."
Dr. Jean Fleischner, Department of Special Education, Teachers College, Columbia University:

"From this conference I have gained an awareness of the impact of my role in training teachers. I have received materials that help me know how to focus my training in terms of training teachers. One part that I would like to be better informed about is the component in the proposal that spoke to having better access to services for my population. I would like to have more people."

Mr. Richard Cooper, Learning Disabilities Consultants (Bryn Mawr, PA):

"One of the things that I take away from this conference is the fact that I am not out there alone doing my thing, that there are many people doing different things and the same thing. And so we are very much in the same stream, although we may be on different sides of the stream."

Dr. Patricia Hardman, CEO, Dyslexia Research Institute, Inc.:

"When we get into the real world, we find as many people falling through the cracks right now as were falling through the cracks before we ever passed 94-142. There is lip service given to learning disabilities at state levels that does not go into practice when we actually deal with the human being.

"With all of the money we spend on technology and all of the money we spend on training, let me remind you why we are doing that--there are human beings involved. Let us not get away from that basic fact.

"Just because a law has been passed, we cannot assume that it will automatically work. We assume that our legislators solve problems when they enact laws, but this is not true. We do not need more laws. We need implementation of the laws we have in order to serve human beings."

Dr. Norman Brier, Associate Clinical Professor of Pediatrics and Psychiatry, Albert Einstein College of Medicine:

"There is a paucity of data as to the psychosocial needs of adults with learning disabilities. Based on the child and adolescent literature, one could speculate that at least 50% of
individuals with learning disabilities have significant psychosocial adjustment difficulties primarily of an internalizing nature, that is comprised of symptoms of anxiety and depression. This is likely to be a low estimate given the lack of organized social structure for these individuals and their concomitant loneliness once they leave school. In developing an evaluation package, a standardized assessment tool needs to be included that can identify psychosocial difficulties. About 50% of youngsters with learning disabilities have significant psychosocial problems."

Dr. Doris Johnson, Professor of Learning Disabilities, Northwestern University:

"I would make a similar point about support groups. We have adults who want and need not only individualized instruction, but also help from each other, their families, and support groups."

"Another point is professional preparation. There are tremendous ranges of sites available that would be useful for people in training to see. Teachers in training need to know about the categories in which they will find students. Some will be in prisons; some will be in higher level graduate programs. Also, until there are more well-trained teachers, it would be very helpful to have mobile units, similar to services for crippled children which went into the rural parts of the state of Illinois years ago.

"My last point is about screening. In addition to reading, writing, and math, there can be rating scales, as have worked with testing children. Some sort of checklist to guide the person giving the test would be in order."

Ms. Joan Auchter, Director of Test Development, GED Testing Service of the American Council on Education:

"One of my jobs is going out to every state and working with GED examiners and teachers. The outcry I hear from them is, 'We need training.' GEDTS is primarily a customer service, not a teacher service. However, we have GED Items which go out bi-monthly to teachers at no charge. If you want to share information, send it to us and it will get into the hands of teachers, state directors and policy makers.

"Because these teachers feel so isolated, they need your research. If you have research on adults with learning disabilities, you have an obligation to share that with us."

Ms. Joan Auchter, Director of Test Development, GED Testing Service of the American Council on Education:
"disabilities we need that; we also need policy and decision-making information."

Dr. Kevin Blake, Licensed Psychologist (Tucson, AZ):

"About fifty percent of learning disabled children and adolescents have great difficulty emotionally. I would stress that basic screening for depression in LD adults, is one of the most common problems that is overlooked, even by the mental health community.

"I believe that there is a basic lack of understanding among mental health professionals of the depth of academic, and emotional concerns faced by learning disabled adults. Furthermore, I feel, there is a lack of knowledge among educators of the depth, and breadth of emotional concerns that many LD individuals live with. There needs to be more communication between the mental health and education communities in this country, so that both can come to a deeper understanding of what it is to be an LD adult. Different organizations like the Learning Disabilities Association of America, the American Psychiatric Association, the American Psychological Association, the Orton Society, etc., need to work together to accomplish this. There needs to be some kind of connection between all the organizations that work with the learning disabled.

"I do not believe that we can come up with a simple diagnostic technique, one that can be given as a questionnaire. We could come up with something that screens for learning disabilities, and could find those who could benefit from further testing. I do not think we can create something as complex as diagnostic testing that can be administered, scored, and interpreted by computer.

"However, I believe it may be possible in the near future to develop a diagnostic 'experience' that could be administered and scored by a computer by way of virtual reality. For example, if a child was thought to have an auditory figure ground problem, he or she could be assessed simply by having them stand on a treadmill equipped with a bicycle's handlebars, and donning a special helmet equipped with a color CRT and sound. The child would be told to find the little girl called Sue at the birthday party, and have a conversation with her. Then the helmet screen would project a life-like image of a child's birthday party, and the appropriate sounds would be pumped into the helmet. As the child moves its head, the 'virtual' vision and sound would change with the movement. The child could move about the 'room' by walking on the
treadmill and turning the handlebars. How long it takes the child to find Sue could be assessed, as could the conversation's comprehension, etc. All of this could be normed, and psychometrically developed."

Dr. Linda Reiten, University of Mary (Bismarck, ND):

"Although we come from diverse groups, it was amazing how quickly we could discuss and come to some equal footing in what we were talking about. Even though we quibbled over language and style, the essence of what we discussed has remained essentially the same. There has been very good communication here, and I have learned a great deal. As a result, I have some ideas about working with Headstart and with literacy--because many parents of Headstart children are illiterate."

Ms. Carolyn Kidder, Reading Disabilities Specialist:

"Let us start listening to the LD and dyslexic adults directly and not just talk about them in their absence. I am very encouraged that there are professionals in attendance here who are self-identified as LD adults. However, to my knowledge, no one here has been through a literacy program; we have no LD adult here who has been in a community-based literacy center. We should be inviting some LD adults to this type of gathering, and we should be underwriting the cost.

"My dream is that organizations such as LDA (Learning Disabilities Association of America) would underwrite one hundred LD adults to come to Washington every other year and have a national adult literacy congress. These LD adults would run it, and they could invite Secretary Riley to come tell them what he is going to do for them."

Ms. Brenda Glass, Department of Corrections, Department of Education (FL):

"The money that is thought to be in Florida has not trickled down to the local program level. We use volunteers extensively in the Probationers' Educational Growth Program. This practice helps us make the most effective use of the funds that are available. Our greatest need in working with students with 'learning differences' is an accurate, effective, easy-to-administer and to evaluate instrument for determining specific problem areas."
Granted, trained teachers and expensive tests would be the ideal, but we are not working in the ideal world. We must do the best we can with what we have, and that does not include specialists in this area. Using information from this symposium, we will research methods and instruments for evaluating students. We hope to find an accurate, easily administered and interpreted instrument to use with our students. Our findings will then be disseminated to the 36 PEG programs throughout Florida."

Ms. Justine Maloney:

"As a representative of the consumer organization, I have learned that we have to reach out to our members with the fact that not all adults with learning disabilities go on to secondary education. We also need to reach out and include minorities.

"We also need to deal with work place literacy and mental health programs (we are trying to deal with the issue of mental health problems).

"In defense of the Learning Disabilities Association, a part of the difficulty lies in communication problems. We do a great deal of advocacy work in Washington, including contacting many agencies."

Ms. Susan Westberry, Supervisor, BEST Adult Education Program, Maury County Board of Education (Columbia, TN):

"I request that you maintain contact with the ones in the trenches to know what the barriers are that we need to overcome.

"And I have a question--what are we going to do so the good things we have done here do not fall through the cracks?"

Mr. Langner:

"I certainly hope that this project, LEAD 2000, produces a proceeding that will be widely disseminated to both adult education/literacy providers and to professionals in the field of adult learning disabilities. That will be an excellent start. As you know, in the proceeding there will be specific recommendations that you can implement for adults with learning disabilities. And after the dissemination of this proceeding, we will have a strong national network."
Ms. Maloney:

"I would recommend for those of us who are consumers that, although it is shorter to say 'LD' adults, we really are very much into people first."

Mr. Parker:

"We need to set a time line. If we do not have it together by 1995, we may miss our opportunity. I would say that the conference a year from now in D. C. would be an excellent opportunity. Get a group together to deal with the various kinds of legislation, particularly the Adult Education Act."

Dr. Laura Weisel:

"I am most concerned about three specific issues. First, the notion of outcomes. Service outcomes and learner outcomes need to be different, defined, and easily measured. Both of these outcomes will need to be 'customer-driven.' Data from these outcomes should be used to measure and monitor services, incentives for funding, tools for program managers, and used by all levels of staffing as feedback on how they are doing.

"How we view and work with literacy learners will need to be part of the discussion on outcomes. Empowerment and partnerships are easy words to say and difficult to translate into everyday service delivery. Ohio is making a great effort through a project called 'Building Collective Wisdom' in which 15 service sites will be working together to rethink how literacy is/can/should be provided.

"My second issue is about human resource development. When we look at our 'workforce' we should be very concerned. Human resource development is about defining the right job, finding the right people to do the job, ensuring that they have the right skills to do the job, that the right conditions exist for the job to be done, and that the job is completed in a timely manner. It will be difficult to think that literacy services can provide a service to individuals, communities, and businesses to improve the nation's workforce without first looking at our own...and doing something about it. This will take a long-range, strategic initiative that goes far beyond the current staff development efforts."
"Thirdly, since our learners/prospective learners do not live in a vacuum--neither can literacy services. I believe we need to think about 'systems' of services. Systems begin to work differently, get funded differently, plan differently, serve differently, and appeal to the more holistic idea that illiteracy is more than just a reading problem."

Mr. Rick McIntosh, Manager, Program Development and Training, The Literacy Initiative (Columbus, OH):

"I am anxious to return to Columbus and share what I have learned this weekend with my colleagues. I believe it is also important to share this information with the adult learners I work with on a daily basis. The outcomes of this project will definitely help these individuals achieve their personal goals."

Dr. Reiten:

"I think it is important for us also to look at what does not work. People disseminate information all of the time. One of the best in-services I ever attended was by somebody who started off the whole session with the world's worst in-service."

Dr. Weisel:

"I think we should celebrate our failures, because we have all done great hard work. If we do not look at them, we cannot figure out what we have learned."

Mr. Glenn Young, Board Member, Washington Coalition of Citizens with Disabilities (Seattle, WA):

"I have learned that people desire to get things done, and they struggle to do it. While all politics are global and people struggle on a local level, we have a missing cohesive--something that people can turn to as a legitimate housing force. While we struggle on a local level, we need a place from which to get information and support. This is a place which would reinforce our work.

"At times most of us feel like lone wolves. We have been out there struggling. We have been talking the talk, walking the walk.
But in a sense we feel as if we are fighting alone. This congress has proved that we are not alone; here we have found a representation of what is going on elsewhere.

"Unless we bring an understanding and eliminate the shame that seems to be attached to learning disabilities, we are not going to build the critical mass of consumers who can really make an impact. Right now, we need to work on eliminating the stigma associated with learning disabilities; we must urge both the learning disabled and others toward acceptance."

Ms. Susan Green:

"The Board of the National Institute for Literacy is just really beginning to get a foundation, but it is truly committed to making a difference. Federal constructs have been attempted to accomplish this kind of thing before, but there is the potential here--probably because of the collaboration between agencies. As a result, we can hope to make real progress.

"In terms of this meeting and further work of the grant, I am really looking forward to seeing what kind of an action agenda emerges from this meeting and how it reflects the work that all of you have done, which has been impressive to me."

Dr. Rose Kellerman, Director of Assessment, Vanguard Academy:

"One thing that I have not heard us address is the LD adult in college and community college and vocational and technical schools. As I have tried to find the right place for our students, I have hit barriers—with little things that the students could not do, so they were excluded from the programs. We need to look at students who are not allowed into certain training programs. And we need to address those training programs that claim to have met the guidelines but really are not LD training programs at all."

Ms. Nancie Payne, Vice President, National Association for Adults with Special Learning Needs, and owner, Payne & Associates:

"We are a society that diagnoses and funds weaknesses, but we can change that if we want to. I think we must have a concentration of strength-based models.

"Also, we need to create a safety zone. It is not safe for a
person with a learning disability to tell an employer about it. We need to assist adult learners to self-advocate in a positive way, as they move to the next level.

"And finally, we need the Employment and Training staff at the Department of Labor, the JOBS staff at Health and Human Services, and the appropriate folks from the Department of Education to sit at the table and do the same kind of integration and collaboration that we are doing here."

Dr. Richard Stiles, Adult Literacy Coordinator, Department of Education (CA):

"I appreciate being able to attend this conference. Thank you."

Dr. Josef Sanders, Modern Education Corporation (Tulsa, OK):

"The strongest link of all is to have a productive exchange of ideas. I have walked away with food for thought."

Ms. Phyllis Rich, Adult Education Director of Nevada:

"As an adult education practitioner, I will remember two things from our work at this conference. The first is reassurance that there are brilliant minds (members of LEAD 2000 Congress) representing many disciplines that are working on the issue of adults with learning problems. The second is confirmation that I am on track with the instrument that I am using to assess adults with learning disabilities, 'PowerPath.' The next time that I am out in the field working and feel isolated and unsure about how to deal with learning disabilities, I will remember the team assembled here and the tremendous value of what we can and will accomplish together in the future."

Mr. Robert Crawford, President, Life Development Institute (Phoenix, AZ):

"As a person who has the privilege of having a learning disability, I want to thank you for your humanity."
"Language needs to be introduced immediately to various education and workplace initiatives which specifically mention people with disabilities, including people with learning disabilities.

"As a back-up, in case we cannot do that, we need to develop regular models that reflect the standards of American 2000.

"We need a direct service provision that is based on a holistic quality of life model which focuses on independent living skills, literacy and employment. In my mind, the ultimate goal has always been a national employment agency where people could go and receive literacy or post-secondary training in employment. This agency would have a support system that would allow students to relocate to other parts of the country and stay within that support system."

Mr. Barry Tronstad, Principal, Ventura Adult Education (CA):

"I feel good about the number of people working together. The potential for growth is incredible. We are not re-inventing the wheel but taking it and moving it in a positive direction with new technology and new ideas.

"Every time we get together more things happen and there is more awareness on a nationwide level. I am sure that we will make significant changes in the next couple of years."

Mr. Oscar Gomez, Diagnostic Specialist, Jones Learning Center, University of the Ozarks:

"We are all working together for the betterment of our friends, our students, our clients, our families, and we each have our own individual agendas. But working toward those goals, we are serving together to put all of our ideas, all our resources into one tool box. We can call this tool box an instrument, or assessment. We can take it and work it in such a way that any one of us can do the job we need to do; we can choose the tool that we need to use and do the job."
"We can do that by sharing together and working together. We have the ability to share with each other, send up a variety of ideas and see where they land and then put the pieces together to form a homogeneous unity. Thus, we can work together for the ultimate good."

Mr. Langner turned the meeting over to Dr. Alexander, who thanked the participants for attending the LEAD 2000 Congress. The conference was adjourned at 11:00 a.m.
LEAD 2000 CONGRESS RESOLUTION

WHEREAS, there is a national crisis because of the number of adults who are not sufficiently literate or educated to become independent wage earners and exercise the rights and responsibilities of citizenship in our name; and,

WHEREAS, nationally over forty percent of youths with learning disabilities drop out of school and should have access to education at the adult level; and,

WHEREAS, forty percent of the over forty-three million Americans with disabilities in the United States have not completed high school and should be addressed in adult education; there is little recognition or positive action on this fact by program and policymakers; and,

WHEREAS, Goal 5 of the National Goals of Education states, "By the year 2000 every adult American will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship"; and,

WHEREAS, for over three million Americans in adult education, federal funding provides only an average of less than $100.00 per person; and,
WHEREAS, the United States Department of Education has erroneously assumed the volunteer tutoring force and part-time programs available at this time are going to be able to meet the educational needs of adults with learning disabilities, many of whom require highly trained teachers.

NOW, THEREFORE, we resolve that the United States Department of Education should:

(1) Establish a formal national policy for lifelong learning needs and education of adults with learning disabilities.

(2) Establish a reasonable funding level for the education of adults with learning disabilities.

(3) Establish consistency and continuity among all government agencies in relation to service delivery and recognition of the needs of adults with learning disabilities.

(4) Establish interagency task forces to provide effective program linkage between Health and Human Services, Department of Labor, and Department of Education, and
other federal agencies impacting adults with learning disabilities that will create a coordinated system of lifelong learning for all Americans, including adults with learning disabilities.

(5) Establish research, funding, and dissemination of information of adult education programs that have a proven track record of success.

Dated this _____ day of March, 1993.

UNIVERSITY OF THE OZARKS
CLARKSVILLE, ARKANSAS

By: ____________________________

Judith P. Alexander, Ph.D.
Vice President for Academic Affairs and Project Director, LEAD 2000
ACTION AGENDA

From the LEAD 2000 Congress Proceedings, let it be determined that by the year 2000 A.D., the following action should be completed in regards to adults with learning disabilities in the United States. This action should be instituted in order to address the needs of forty percent of over forty-three million adult Americans with learning disabilities in this country and should likewise be promoted in order to fulfill Goal 5 of the National Goals of Education: "By the year 2000 every adult American will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship."

I. Develop, promote, and administer standardized, uniform assessment.

   A. Require testing for learning disabilities at adult literacy centers (including schools and prisons).
   
   B. Develop and distribute uniform test packets at state and local centers.
   
   C. Develop tests that are transdisciplinary; easily administered by trained persons; diagnostic, descriptive, and valid; simple, yet computer-based; free of racial or cultural bias; easily accessible; and affordable.
   
   D. Have trained personnel explain tests and results, emphasizing self-advocacy.

II. Establish a national clearinghouse, which will:

   A. File and store historical/medical/cultural information regarding learning disabilities.
   
   B. Categorize all educational material on learning disabilities.
C. Catalogue current research (projects and results).

D. Inform others of all pertinent laws.

E. Codify learning disabilities programs.

F. Distribute assessment materials.

G. Disseminate techniques for remediation.

H. Establish communication with learning and literacy centers throughout the United States.

I. Serve as a repository for all pertinent information.

III. Establish a national learning center, which will:

A. Conduct on-site classes, training both teachers and learning disabilities specialists.

B. Prepare training/assessment packages to be distributed by clearinghouse.

C. Determine feasibility of mobile assessment/remediation/training centers.

D. Provide mobile diagnostic/training centers (if deemed feasible).

E. Send assessment and remediation specialists out to train others.

F. Through work with trainees, maintain contact with learning and literacy centers, prisons, work places, libraries, schools, and others involved in teaching the learning disabled.
Appendix C
Assessment Instrument Evaluation Form

Name of Test: 
Publisher: 
Price: 
Type of Instrument: 
Areas Covered: 
Age Levels: 
Administration Time: 
Ease of Administration: 
Statistical Properties: 
Timed?: 
Computer Applicability: 

Summary from Buros Mental Measurements Yearbook:
### INTELLIGENCE AND GENERAL COGNITIVE ABILITY

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<th>Test Name</th>
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<tr>
<td>Beta II</td>
<td>Psychological Corporation San Antonio, TX</td>
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<tr>
<td>Detroit Tests of Learning Aptitude-Adult (DTLA-A)</td>
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<td>Kaufman Brief Intelligence Test (KBIT)</td>
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<td>Raven Standard Progressive Matrices</td>
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<td>Wechsler Adult Intelligence Scale-Revised (WAIS-R)</td>
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<tr>
<td>Woodcock-Johnson Psycho-educational Battery-Revised Part I: Tests of Cognitive Ability</td>
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### INFORMATION AND SPECIFIC COGNITIVE PROCESSING

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<tr>
<td>Bender Visual Motor Gestalt Test</td>
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<td>Comprehensive Test of Visual Functioning (CTVF)</td>
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<td>Goldman-Fristoe-Woodcock Auditory Skills Battery</td>
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<td>Goldman-Fristoe-Woodcock Test of Auditory Discrimination</td>
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<td>Learning Efficiency Test-II</td>
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<td>Test of Cognitive Skills</td>
<td>CTB/McMillan, McGraw Hill Monterey, CA</td>
</tr>
<tr>
<td>Wechsler Memory Scales</td>
<td>Psychological Corporation San Antonio, TX</td>
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<tr>
<td>Woodcock-Johnson Psycho-educational Battery-Revised Part I: Tests of Cognitive Ability</td>
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**ACADEMIC ACHIEVEMENT**

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<tr>
<td>Adult Basic Learning Examination (ABLE)</td>
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<td>Instrument</td>
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<td>Multi-level Academic Survey Tests (MAST)</td>
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<td>Peabody Individual Achievement Test-Revised (PIAT-R)</td>
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<td>Stanford Test of Academic Skills (TASK)</td>
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<td>Test of Adolescent Language-Second Edition (TOAL-2)</td>
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<td>Test of Written Language-Second Edition (TOWL-2)</td>
<td>PRO-ED, Austin, TX</td>
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<td>Wechsler Individual Achievement Test (WIAT)</td>
<td>Psychological Corporation San Antonio, TX</td>
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<td>Woodcock-Johnson Psychoeducational Battery-Revised Part II. Tests of Achievement</td>
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**Suggested Screening Instruments**

**COGNITIVE/INFORMATION PROCESSING**

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<td>Peabody Individual Achievement Test-Revised (PIAT-R)</td>
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<td>American Guidance Service</td>
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<td>Part II: Tests of Achievement</td>
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Appendix E
## LD CHARACTERISTICS CHECKLIST

<table>
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<th>NAME</th>
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<th>SETTING</th>
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<table>
<thead>
<tr>
<th>RELATIONSHIP TO CLIENT</th>
<th>LENGTH OF RELATIONSHIP</th>
<th>TENTATIVE VOCATIONAL GOAL</th>
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**Directions:** This checklist may be completed during an interview or given to parents, teachers, or other professionals to complete. Informants should rate each item according to the frequency of the behavior. Specific examples or comments should be provided when possible.

1. Seldom or Never
2. Often
3. Very Often
4. No opportunity to observe

**Counselor Use Only:** Circle the number of any characteristic which could be considered a possible vocational handicap.

### I. ATTENTION

1. Fidgets - feels restless
2. Has difficulty remaining seated when required to do so
3. Easily distracted
4. Has difficulty awaiting turn in games or group situations
5. Blurs out answers to questions before they have been completed
6. Has difficulty following through on instructions from others
7. Has difficulty sustaining attention in tasks or leisure activities

### II. REASONING/PROCESSING

15. Makes poor decisions
16. Makes frequent errors
17. Has trouble using previously learned information in a new situation
18. Has delayed verbal responses
19. Takes longer to do a task than others
20. Has difficulty adjusting to changes in schedule
21. Has difficulty adjusting to changes in steps in a job or task sequence
22. Has difficulty adjusting to changes in personnel

### III. MEMORY

30. Has difficulty answering questions regarding personal history
31. Has difficulty repeating information recently heard
32. Has difficulty repeating information recently read
33. Has difficulty retaining learned information for more than six months, may be visual or auditory
34. Has difficulty following multiple directions
35. Has difficulty performing tasks in correct sequence

---

UAB 1994 LD Training Project
Dr. Carol A. Dowdy

E-1 98 BEST COPY AVAILABLE
IV. INTERPERSONAL SKILLS EMOTIONAL MATURITY

- 36. Interacts inappropriately with supervisors/teachers of same sex
- 37. Interacts inappropriately with supervisors/teachers of opposite sex
- 38. Responds inappropriately to non-verbal cues
- 39. Has difficulty accepting new tasks without complaint
- 40. Upsets or irritates others
- 41. Sits and does nothing (hypactive)
- 42. Uses eye contact ineffectively
- 43. Is too aggressive
- 44. Is withdrawn: Avoids social functions

COMMENTS:

V. COORDINATION/MOTOR FUNCTION

- 53. Has difficulty performing gross motor tasks (e.g., driving, lifting)
- 54. Has difficulty performing fine motor tasks
- 55. Confuses left-right

COMMENTS:

VI. COMMUNICATION: Oral Language

- 59. Substitutes words inappropriately
- 60. Uses short, simple sentences

COMMENTS:

VII. READING

- 63. Has difficulty reading aloud
- 64. Has difficulty reading newspaper want ads
- 65. Has difficulty reading job applications

COMMENTS:

VIII. WRITING/SPELLING

- 68. Has difficulty writing legibly
- 69. Has difficulty copying
- 70. Displays poor spelling skills

COMMENTS:

IX. MATH CALCULATION/APPLICATION

- 73. Has difficulty managing money
- 74. Has difficulty balancing checkbook

COMMENTS:

45. Does not follow classroom or workplace "rules"
46. Has difficulty making and keeping friends
47. Displays a lack of awareness of consequences of behavior
48. Has difficulty accepting constructive criticism
49. Has difficulty getting help from others
50. Exhibits signs of poor self-confidence
51. Has difficulty working in close proximity to others
52. Has difficulty working in isolation
53. Has difficulty performing gross motor tasks (e.g., driving, lifting)
54. Has difficulty performing fine motor tasks
55. Confuses left-right
56. Has difficulty keeping balance
57. Has slow reaction time
58. Has limited endurance/stamina for motor activity
61. Has difficulty explaining things coherently
62. Has difficulty communicating on the phone
66. Has difficulty reading signs in the environment
67. Reading comprehension is below 9th grade level
71. Has difficulty communicating through writing
72. Has difficulty with paragraph writing
73. Has difficulty managing money
74. Has difficulty balancing checkbook
75. Has difficulty performing math calculations
76. Math skills are below 9th grade
A learning disabled person may exhibit several or many of the following behaviors:

- Demonstrates marked difficulty in reading, writing, spelling and/or using numerical concepts in contrast with average to superior skills in other areas.
- Has poorly formed handwriting - may print instead of using script; write with inconsistent slant; have difficulty with certain letters; space words unevenly.
- Has trouble listening to a lecture and taking notes at the same time.
- Is easily distracted by background noise or visual stimulation; unable to pay attention; may appear to be hurried or anxious in one-on-one meetings.
- Has trouble understanding or following directions; is easily overwhelmed by a multiplicity of directions or overstimulation; may not understand information the first time it is given and may need to have it repeated.
- Confuses similar letters such as "b" and "d", or "p" and "q"; confuses the order of letters in words repeating was for saw, teh for the; may misspell the same word several different ways in the same composition.
- Omits or adds words, particularly when adding or reading aloud.
- Confuses similar numbers such as three and eight, or six and nine, or changes the sequence of numbers such as 14 and 41; has difficulty copying numbers accurately and working with numbers in columns.
- Exhibits an inability to stick to simple schedules; repeatedly forgets things, loses or leaves possessions, and generally seems "personally disorganized."
- Appears clumsy or poorly coordinated.
- Seems disorganized in space - confuses up and down, right and left; gets lost in buildings; is disoriented when familiar environment is rearranged.
- Seems disoriented in time - i.e. is often late to class, unusually early for appointments, or unable to finish assignments in the standard time period.
LEARNING DISABILITY CHECKLIST, continued

- Displays excessive anxiety, anger, or depression because of the inability to cope with school or social situations.

- Misinterprets the subleties in language, tone of voice, or social situations.

Interview Behavior

The following guidelines are suggested for structuring the interview environment:

1. **Become an active listener.** The learning disabled adult is often telling you the diagnosis. Exhibit a keen interest in what is said. Be accepting and let the individual tell his or her own story. It is important to find out what the adult considers to be important. Do not interrupt, however, do not encourage rambling and keep the adult on the track.

2. **Ask questions and elicit information in a warm, non-threatening, non-judgmental way.**

3. **Remain sensitive to "touchy" areas.** Communicate that you realize certain things are hard to discuss.

4. **Remember the information you read in the file.** Remembering means you care.

5. **Respond to the adult's feelings as facts.**

6. **Be truthful and honest.**

7. **Respect confidentiality.**

8. **Keep in mind the purpose of the interview and integrate the information as you go.** You are not looking for isolated information but patterns of how the individual has been functioning.

9. **Refrain from making decisions for the adult.**

10. **Do not cut the adult off because he or she is not following your order of chosen questions.**

11. **Do not make a guarantee you cannot keep,** i.e., “I'm sure that everything will be fine.” (Can you be sure of that?)

12. **Refrain from utilizing educational jargon.**

13. **Refrain from asking questions that you could not give an explanation for asking.**

14. **Refrain from playing “junior shrink.”** Counseling is not your purpose.

15. **Refrain from appearing shocked by anything.**

16. **Refrain from blaming, condemning, or jumping to conclusions.**

17. **Refrain from appearing authoritative.**

18. **Refrain from becoming impatient.**

19. **Refrain from comparing your personal experiences to what the adult is saying.** His or her problem is unique.

20. **Appear well organized and handle all forms and/or papers inconspicuously.**
Sample Questions

Listed below are some suggested questions for use in interviewing an adult who may be learning disabled.

1. Why don't you explain in your own words some of the ways learning has been difficult for you?
2. Do these learning problems affect areas other than academic learning? For instance, how does this problem affect you on your job?
3. What are some things you have done to get around some of these problems?
4. When teachers gave you difficult tasks in school, how did you handle that situation?
5. Do you feel the learning problem interferes in your making stable relationships (i.e., work, intimate, friend)? How?
6. Describe your family's response to your learning problems.
7. Describe what you think are your strengths.
8. Where do you see yourself ten years from now?
9. What do you think would help you reach your goals?
10. Describe someone who has been a support in your life.

### Table III.3

**SUGGESTED LD ASSESSMENT PROCEDURE**

**(NEWILL, ET AL.)**

1. **Preliminary Assessment**

   **A. Client History.** Examples of areas that should be reviewed within sections are provided
   1. **Family Background and Dynamics**
      - History of learning disabilities in family
      - Current family composition
      - Relationship between parents and client
   2. **Medical Information**
      - Under care of physician/taking medication
      - Unusual illnesses, accidents, surgeons
      - Difficulties with alcohol or drugs
   3. **Interpersonal Functioning**
      - Friendship patterns
      - Interactions with opposite sex
      - Ease of making friends
   4. **Psychological Functioning**
      - Treatment for psychological problems
      - Feelings of inferiority
      - Antisocial behaviors
   5. **Educational Background**
      - Levels and type of education (special education or regular education)
      - Repeated grades
      - Attitudes toward school
   6. **Vocational History**
      - Current employment status
      - History of frequent job changes
      - Relationship between handicap and vocational success

   **B. Behavioral Observations.** A conscious effort to attend to the client will reveal valuable information relative to the client's:
   1. **Communication Abilities**
   2. **Interpersonal Style**
   3. **Levels of Attention**
   4. **Cognitive Abilities**
   5. **Emotional Maturity**
   6. **Problem-Solving Style**

   **C. School Records.** The vocational rehabilitation counselor should request:
   1. A complete transcript
   2. Results of formal testing
   3. Description of any special education services received
   4. Incidence of behavior problems

   Once this information is obtained, the counselor should look for the following patterns
   1. Lower performance on achievement tests than expected from IQ scores
   2. History of specific learning problems dating from the primary grades
   3. Placement in special education classes (any information available)
   4. Behavioral notes indicating peer interaction problems (either aggressiveness or passivity)
II. Formal Diagnostic Procedures

A. Medical Assessment. The medical assessment is viewed as an essential component of the diagnostic package as it serves to both: 1) identify any physical condition that may be contributing to, or causing, the learning problem, and 2) identify any physical problem that may exist concurrently with the learning disability. The medical assessment should include the following two components.
   1. Medical History
   2. Comprehensive Medical Examination

B. Psychological/Educational Examination. At a minimum, the psychologist should administer the following tests to make an appropriate diagnosis:
   1. Individual Intelligence test (WAIS-R is recommended). The test should provide the following information:
      -- Full scale IQ
      -- Verbal and performance IQ's
      -- Subscale scores for each verbal and performance measure
      -- Interpretation of test profile
   2. Individual achievement tests
      -- Word recognition (decoding)
      -- Reading comprehension
      -- Mathematics
      -- Spelling
      The test should provide the following information:
      -- Grade level for each achievement area
      -- Standard score for each achievement area (when available)
      -- Discussion of discrepancy (if any) between achievement results and aptitude
   3. Measure of personality functioning. The test should provide the following information:
      -- Presence/absence of emotional dysfunction
      -- Significance of emotional problems (psychotic/neurotic)
      -- Relationship between emotional problems and SLD

C. Vocational Assessment. The vocational assessment should consist of four components:
   1. Informal ascertainment of client's vocational goals
   2. Preliminary determination of client's vocational aptitudes and strengths
   3. Formal vocational aptitude and vocational interest testing
   4. Diagnostic vocational evaluation (assessments which provide client with "hands-on" experiences in a variety of job simulations

Table III.3
(continued)
SUGGESTED LD ASSESSMENT PROCEDURE
(NEWILL, ET AL.)

From Barry H. Newill, Charles H. Goyette, and Thomas W. Fogarty. (April/May/June, 1984) "Diagnosis and Assessment of the Adult with Specific Learning Disabilities." Journal of Rehabilitation
Non-Criteria Learning Disability Checklist

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<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
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<td>1</td>
<td>2</td>
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</table>

Memory/Concentration/Attention

_____ loses mental image; must hear or see again
_____ needs frequent breaks; can't keep on with tasks
_____ distractions take attention away from task: "What was that?"
_____ can't ignore; can't tune out; can't postpone
_____ says "Wait!" or "Hold it!" during listening tasks
_____ jumps the track to other topics before finishing
_____ does first few items, then thinks whole task is finished
_____ off on rabbit trails instead of going from start to finish
_____ quickly bored; asks "How many more?" "When will this be over?"
_____ irrelevant thoughts intrude; changes the subject; begins telling irrelevant stories midway through task
_____ fiddles with things; can't leave things alone
_____ must be called back to task
_____ excessive body energy; restless movement; squirms, fidgets; foot scrubbing; mouth noises; finger noise
_____ wants to terminate; tries to end tasks
____ races through task without thinking it through
____ does items in random order instead of going from start to finish

Dysgraphia
____ struggles to write legibly
____ goes back to correct: erases and changes; writes on top of original; can't get it right
____ miswrites: m for n, n for m, o for a, u for w, w for u
____ reverses pencil strokes: makes backward loops on lower case f, g; backward loop on capital J; circular letters are made clockwise
____ writing rapidly deteriorates
____ slow, labored writing
____ soon reaches burnout; can't finish without resting
____ runs out of time
____ irregular, unpredictable slant of writing
____ incomplete strokes: doesn't dot i, cross t, put cross bar on F, doesn't close loop of o, a, d, b, g, p, q
____ stops to shake hand, rub fingers
____ very heavy pencil pressure
____ too light pencil pressure
____ finished work is unreadable
____ switches back and forth from printing to cursive
Dyslexia

_____ reverses symbols: b-d, p-q
_____ rotates symbols: 6-9, h-y, n-u, d-p, b-q, m-w
_____ mirror reads: saw/was, on/no, but/tub, god/dog
_____ reverses patterns: brid/bird, bran/barn, bule/blue, from/for
_____ reverses number: 16/61, 409/490
_____ tongue twists syllables while saying
_____ confuses words: "ideal" for idea
_____ can't handle homonyms: they're/there/their, two/to/too
_____ can't retain spellings
_____ can't write from dictation
_____ can't master writing skills: punctuation; capitalization; grammar; sentence structure
_____ poor sense of sequence or order
_____ tells orally better than can write
_____ struggles to read: poor word sounding; slow decoding
_____ poor recall of learned information; struggles to remember, to tell, to answer questions
_____ poor listening: can't keep up; retains bits and pieces of oral information
_____ can't take notes: gets lost, falls behind
_____ slow rate of processing; can't hurry or speed up
_____ easily confused in flow of new information
poor sense of direction
poor sense of time

Social Characteristics

immature; does not grow up; clings to immature habits and mannerisms
impulsive: spur of the moment
does not think of cause/effect consequences in making decisions
blames others; does not see own part in why things fail
poor sense of humor; misses point of jokes; does not understand teasing
tails to plan ahead; does not budget; does not conserve
irritates others; does not develop social grace; embarrasses by inappropriate behavior
does not read social signals: repeats same social mistakes; disregards privacy of others; thoughtless of needs/wishes of others
intrusive; overbearing; clamors for attention
difficulty hold a job; can’t find work in spite of good credentials or good talent

Symbol Reversal

writes letters or numbers backward
reads or interprets letters, numbers, or word parts in reversed order
exhibits mirror image (reading from right to left)
turns letters or numbers upside down
reads whole words backwards
Loss of Sequence

___ cannot recall information in a given sequence (alphabet, days, months, math facts)

___ loses the sequence after starting to remember it correctly

___ cannot tell events in the right order

___ cannot work math problems in the right direction

___ cannot remember the right time frame when things occurred

___ cannot remember several tasks to do in a certain order

___ cannot follow directions that involve turning corners or changing geographical direction

Poor Oral Telling

___ cannot tell events in the right order; scrambles the sequence in telling

___ stumbles over words, names, important parts of the message

___ loses words as the story is told

___ leaves out important elements that change the meaning of the information as it is told

Poor Listening

___ cannot keep track of incoming oral information: misses the point, misunderstands, gets lost in listening

___ misconstrues the oral message; later remembers it another way

___ continually responds by saying: "What?" or "Huh?" or "What do you mean?" immediately after the speaker has finished
cannot take adequate notes in listening situations
later says "You didn't tell me that" or "I didn't hear you say that"

Poor Writing

penmanship is messy and poorly organized
writing cuts down through the line or drifts up above the line in an uneven pattern
student mixes capital and small letters in writing
student mixes cursive and block printing
quality of writing deteriorates, becomes poorer the longer the student writes
size of writing is inappropriately large for the given space
columns zig-zag away from left margin, often float in a curve toward lower right hand corner of the page
writing hand becomes cramped; student stops writing to shake out the cramps
student continually loses the place copying from the board or from a book
student lays head down on left hand with nose close to pencil while writing
student turns writing paper at 90 degree angle or turns head at an angle while writing

Poor Phonics

cannot make correct letter/sound connections from memory
word sounding is labored, slow, difficult
many pauses with whisper rehearsing before attempting to sound out a word
student frequently says "Wait!" or "Hold it!" while sounding out words
student cannot blend sounds together in the right sequence when words have more than two or three syllables

the sequence of sounds becomes scrambled or reversed while saying the word

Poor Spelling

spelling is phonetic instead of regular, words are spelled the way they are said instead of how they should be spelled (Twosday, Winsday, Thursday)

spelling patterns are partly reversed (brid for bird, gril for girl, Apirl for April)

words are misspelled while copying or rewriting papers

student cannot retain spelling patterns after they are memorized

Short Attention Span

attention drifts or darts off on rabbit trails instead of staying on the task

student changes the subject midway through without finishing what was started

a question is asked, then speaker is interrupted by another question before the first one has been answered

body of listener becomes restless and disruptive during listening situations

Poor Reading Comprehension

the meaning of the printed passage does not register even though student says all the words correctly

reader habitually skips or omits key words or phrases, which changes the meaning of the passage

rate of reading is very slow, only a few words decoded per minute
reader wants to whisper while reading
reader wants to trace the line with finger while reading
reader needs to go back and read again two or three times before the full meaning registers
reader cannot connect what was read to the test questions over the passage
Appendix F
### Standardized Screening Instruments

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Appendix G
## Diagnostic Instruments Appropriate for an Adult Population

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<td>Peabody Individual Achievement Test-Revised (PIAT-R)</td>
<td>American Guidance Service Circle Pines, MN</td>
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<td>Stanford-Binet Intelligence Test, Fourth Edition</td>
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Woodcock-Johnson Psycho-educational Battery-Revised
Part I: Tests of Cognitive Ability, Standard Battery

Woodcock-Johnson Psycho-educational Battery-Revised
Part II: Tests of Achievement, Standard Battery

DLM Teaching Resources
Allen, TX

American Guidance Service
Circle Pines, MN
### Prescriptive Assessment Instruments Appropriate for an Adult Population

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Test of Adolescent Language-Second Edition (TOAL-2)

Test of Cognitive Skills

Test of Non-Verbal Intelligence-2 (TONI-2)

Test of Visual Motor Integration (VMI)

Test of Written Language-Second Edition (TOWL-2)

Wechsler Memory Scales

Woodcock-Johnson Psychoeducational Battery-Revised
Part I: Tests of Cognitive Ability, Supplemental Battery

Woodcock-Johnson Psychoeducational Battery-Revised
Part II: Tests of Achievement, Supplemental Battery

PRO-ED, Austin, TX

CTB/McMillan, McGraw Hill Monterey, CA

PRO-ED, Austin, TX

PRO-ED, Austin, TX

PRO-ED, Austin, TX

Psychological Corporation San Antonio, TX

DLM Teaching Resources Allen, TX

American Guidance Service Circle Pines, MN