Removing the Literacy Barriers to Training and Employment for Dyslexic/ADD/SLD Disabled Adults Through Proper Multisensory Language Education Therapy using the Hardman Technique and Addressing the Myths Involved in Adult "systems" in Regard to This Learning Difference

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1999

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The Dyslexia Research Institute (DRI) obtained a grant from The Able Trust to institute a model to train adult educators in Florida during the summer of 1998 so that the trained participants could then return to their own agencies and train their staffs in an alternative teaching approach called Multisensory Structured Language Education (MSLE). This teaching approach matches the learning style of adult dyslexic, Attention Deficit Disordered (ADD) and Specific Learning Disabled (SLD) clients. The ABLE Trust entered into this project because they realized that the barriers to employment for dyslexic adults in Florida as a result of their illiteracy were not being recognized nor addressed. Further, The Able Trust suspected that teachers in adult education were no better trained to address the literacy issues for this "hidden disability" than the K-12 system teachers had been.

The better than fifty percent dropout rate in K-12 (Wagner, 1991, et al) for this "bright but" disability accounts for some of the reason dyslexics comprise sixty to eighty percent of the Welfare to Work clients and the majority of those who are illiterate in adult education (USDOE, 1994). The high dropout rate in adult education programs for this disabled group results from the same reasons they dropped out of the K-12 system: lack of proper identification of their dyslexia and teachers not being trained to teach by an alternative system which addresses the dyslexic's different learning style. Teaching these adults the same way that had failed to address their learning needs throughout their schooling is no more successful in adult education than it had been in the K-12 system. Through informational seminars, providing research on adult dyslexics who receive proper literacy training, and training a beginning group of adult educators in Florida in a MSLE approach, The Able Trust hopes to expand the recognition and proper remediation of dyslexia.

The participant's training was accomplished through a Summer Teacher Training Institute with sixty (60) hours of direct instruction in the Hardman Technique, a Multisensory Structured Language Education Approach, and one hundred twenty (120) hours of supervised "hands on" practicum teaching of dyslexic adult clients. The Hardman Technique is recognized by the International Multisensory Structured Education Council as having all the necessary components to teach dyslexic/ADD/SLD children and adults. The successes and problems of using this training model were discussed in another paper entitled "DRI, Report to The Able Trust on the Grant to Train Adult Educators to Provide Proper Academic Therapy to Dyslexic Adults in Florida". (Dyslexia Research Institute, February, 1999)

This paper will focus on the successes of properly identifying and providing appropriate literacy intervention to those disabled adult clients served during the summer institute at the Dyslexia Research Institute, including the outcomes in increased salaries and/or post-secondary training six months later. The clients were taught by the newly trained tutors who possessed educational backgrounds ranging from high school to Masters in Reading degrees. Further, this paper will discuss the myths and barriers that exist in adult education and Welfare to Work programs in

relation to this "hidden disability" of dyslexia. The following statistics and analysis of the progress of the sixteen adult dyslexic clients will serve to help debunk these myths and point to necessary policy and teaching style changes.

The sixteen dyslexic adult clients who received academic therapy for 120 hours over a six-week period of time during the summer of 1998 were WAGES (Welfare to Work) clients, students at Lively Vocational Technical Center, and self-referred adults who had previously been identified as dyslexic or SLD. All clients were given a prescreening to substantiate their dyslexia and were given post-testing at the end of six weeks. Their progress was followed for six months to determine what changes, if any, occurred in their employment, wages, or post-secondary training as a result of their increased literacy skills.

MYTH #1: *"The reason there are so many illiterates in welfare to work programs, unemployed, or in jail is that they are high school dropouts." Conversely, for adult educators or WAGES counselors to assume that someone is literate or has adequate decoding or comprehension skills for post-secondary training or employment because they have a high school degree is simply the other side of the myth.*

TRUTH

One, the major reason many dropped out was that they were not literate and could not compete in the academic setting, nor was the K-12 or adult education setting effectively giving them the tools to become literate. The adult who is illiterate did not go to school for ten to twelve years, be literate during that time, drop out and suddenly become illiterate. The unrecognized or undiagnosed dyslexic makes up the majority of those who have potential for success, but who are illiterate adults. Sixty to eighty percent of adults in adult education programs or who are Welfare to Work clients have unremediated learning disabilities. *The major educational problem is NOT whether they dropped out or have a high school diploma, BUT whether they obtained sufficient literacy skills to compete for employment at self-sufficient wages in a technological society.* ***Literacy is a major employability issue.***

Two, having a high school diploma does **NOT** equate to having sufficient literacy skills to be employed at self-sufficient wages.

DISCUSSION

There were seventeen clients in the study. One dropped out before any data could be collected, so all results and comparisons are based on sixteen clients. There were six males and ten females, ranging from 19.9 years to 57.5 years of age. The average age was 38.7 years. There were seven African Americans and nine Caucasians. Ten of the sixteen were on some type of public assistance**,** two males and eight females**.** All clients were screened prior to entering the study to confirm dyslexia as the reason for their literacy problems.

Of the sixteen clients, ten were at least high school graduates. Two of this group were college graduates, and three had at least one year of college. Six were high school dropouts. At the beginning of the study, prior to academic therapy, ***the average reading level*** on the Grey Oral Reading Test for the clients ***was 7th grade 2nd month***, ranging from a low of 3rd grade 2nd

month to 11th grade 3rd month. ***The average comprehension level*** of the Grey was ***5th grade 2nd month***, ranging from 3rd grade 2nd month to 9th grade 9th month. The average grade level on the ***TABE Language was 7.1 grade level,*** ranging from 1.4 grade to 12.9 grade level. On the ***TABE Reading*** the ***average was 5.9 grade level***, ranging from 4.1 grade to 9.9 grade level. The overall average reading and comprehension skill levels of the group would fall into Level II literacy levels based on the National Adult Literacy Survey (NALS) Study.

TABLE 1

Comparison of Years in School and Gains Made

Years in School	Initial Reading Level	Change	Initial Comp level	Change
17	10.2	0	9.9	10 mos.
16	8.5	12 mos.	8.7	0
13.5 (HS + 1.5 yrs coll)	11.5	3 mos.	7.9	26 mos.
12 (HS Grad)	5.1	12 mos.	4.2	23 mos.
12 (HS Grad)	3.7	6 mos.	3.3	23 mos.
12 (HS Grad)	7.9	4 mos.	5.4	10 mos.
12 (HS Grad)	4.4	24 mos.	6.0	16 mos.
12 (HS Grad)	8.8	4 mos.	7.4	29 mos.
13.0 (HS +1 coll)	10.5	0	6.8	0
13.0 (HS + 1 coll)	6.2	20 mos.	5.7	35 mos.
10	6.4	25 mos.	5.6	30 mos.
10	8.0	7 mos.	5.7	10 mos.
10 (GED)	10.0	10 mos.	7.9	4 mos.
10	3.3	0	3.8	6 mos.
10	9.3	0	3.2	54 mos.
10	3.1	18 mos.	3.2	26 mos.

The clients' level of prior education had no correlation with their level of literacy nor with the amount of gains they made in oral reading or comprehension during the 120 hours of academic therapy. The client who had a post-graduate degree (17 years in school) nor the college graduate had no higher decoding levels than one of the 10th grade dropouts. There were high school graduates with 3rd and 4th grade levels who had never failed nor received any remedial help in school. One client who was a high school graduate and had attended college for one year had 6th grade levels. There were clients who had earlier been identified as SLD in the public school who had high school diplomas with less than 2nd grade skills, and one who attended college with less than 6th grade skills. Neither age nor gender correlated to any differences that could be found.

Comprehension levels were lower on average than decoding for the clients, but here there was some correlation between those who dropped out of school and low comprehension levels, ranging from 3.2 grade level to 7.9 grade level compared to the two college graduates who had higher comprehension levels, 9.9 and 8.7 grade level, respectively, than the remainder of the

group. The high school graduates' comprehension levels ranged from 3.3 grade level to 7.4 grade level, not much different from the dropouts' levels.

Three of the sixteen "knew" reading was their problem, but did not know how they learned differently nor how to get the help they needed. Five of the male Caucasians had a previous diagnosis of dyslexia as children, and six more clients had been diagnosed as learning disabled and received remedial help in school, but they really had no idea what that meant. All of the "undiagnosed" were female. This lack of proper identification of the learning disability in females is typical and unfortunate. Thirteen did not recognize their reading disability but "thought" they were "just dumb" or "lazy". Even though all of the clients in the study had been in some type of adult education, adult tutorials, or GED preparation programs, they had not been given any help in adult education that differed from what they had received as children, and saw little or no positive changes from the other adult programs they had participated in.

For example, one had attended GED classes for three years or six semesters, but her levels had not changed even one grade level in that time. She achieved almost three years' gain in skills during the academic therapy program, successfully completed her GED and a semester's post-secondary training for a specific employment goal. The six-month follow-up reports she is employed at $9.25 per hour. She did not know that her illiteracy was the barrier until she entered the program.

When the systems complain that it is too expensive to provide the necessary one-to-one academic therapy required to properly address this learning difference, they should consider the cost to continue addressing it inappropriately. They should consider the return to the taxpayer and to the individual when instruction matches the different learning style of the dyslexic.

This lack of understanding by the illiterate person of the cause of their learning and employment problems, or in the case of the high school graduates that illiteracy itself was their problem, was also found in the NALS study which reported that 75% of those functioning at the lowest levels of literacy did not recognize their reading problem as being the barrier to their employment. (NALS, 1993)

Therefore, assuming that someone is literate because he/she has a high school diploma or that the adult can self-report that illiteracy is his/her barrier to obtaining post-secondary training or maintaining employment is not a valid assumption.

When Florida's WAGES reports "that 'almost' fifty percent of Welfare to Work clients have high school diplomas", neither the WAGES counselors nor WAGES system have any idea whether literacy issues are involved or that these literacy issues are some of the main barriers preventing their clients from obtaining training or maintaining employment. ***To not address illiteracy nor to recognize the high number of WAGES clients who have a learning disability which has been undiagnosed and unremediated are some of the major barriers preventing these clients to gain self-sufficient employment and are the failures of the Welfare to Work System. Putting these clients in minimum-wage, dead-end jobs does not allow them to become self-sufficient. The issue for these clients as far as education is concerned is NOT whether***

they have a high school diploma, but whether they are literate. (Hardman, 1998)

Illiteracy's relation to unemployment or underemployment

Even the clients in this study with college degrees could not function on the job, and all of the clients were unemployed, underemployed, or could not sustain employment because of their lack of literacy.

Of the sixteen clients***, nine or 56% were unemployed*** at the beginning of the study. The unemployed were: the two college graduates; two of the three with at least one year of college, three of the high school graduates, and two of the high school dropouts . ***Of the seven employed, their average salary was $5.70 per hour***, ranging from $4.50 to $8.45 per hour. Four of the seven employed were high school dropouts. Three of the employed were working only part time. One of those working full time was on commission**. None were employed at a salary level which would allow self-sufficiency**. If anything, there was a negative correlation in this group based on higher levels of education obtained in terms of their ability to be employed. One of the reasons for this may relate to the low-paying jobs that were held. The more educated may simply have been totally dissatisfied or unwilling to work in such types of jobs .

There were obviously issues other than illiteracy involved in these clients' employability problems. Some, but not all, are associated with unremediated dyslexia, since dyslexia is a communication or language disability, not just a reading disability, which affects many areas of life not associated with academics. However, based only on increasing their literacy levels and developing better learning skills in the six-week, 120-hour program of academic therapy, *the average wage for four of the clients, who were unemployed* at the beginning of the program, but **who became employed, was $6.97**. Four who were previously unemployed chose to enter post-secondary training, and were successful in their endeavors to gain a vocation with a higher salary potential. They had not been successful in post-secondary training prior to their gaining literacy skills during the summer program. The fifth unemployed person was incarcerated, even though he had excellent gains in literacy during the program**.**

All who had been previously employed maintained employment, but several had "upgraded" their employment while others were going back to school part-time while working. The average wage for those who had **previously been employed *within six months*** of the close of the summer program **was $8.55, an average hourly increase of $2.84 per hour**.

Was this high correlation between increased literacy skills and employment and increased wage earnings for these clients a coincidence? **Of course not.** The Milken Study (Milken,1999) showed a direct correlation between the level of literacy and the ability to do a particular job and subsequent wages that could be earned, as did the NALS (NALS, 1993). There is no argument in any of the literature that literacy levels and wage earning ability are directly linked. All of the clients who had previous employment had worked all their adult lives in low-wage, dead-end jobs. ***Gaining literacy and learning skills allowed them to remove barriers to advancement or to attaining jobs more appropriately matching their potential***s. The unemployed clients, including those on public assistance, did not want to be unemployed, and, in many instances, had been employed in minimum wage jobs before. Again, improved literacy and learning skills

levels allowed them to enter the job market or to finally go into post secondary training where they could become self-sufficient, productive, tax-paying citizens. ***Without removing the barrier of illiteracy, these employment opportunities simply do not exist, especially when the person is trying to overcome language and communication disabilities as well***.

The barrier as it relates to self-sufficient employment in reference to education is NOT whether or not a person has a high school diploma in our technological society, but the real barrier is their level of literacy which will allow or prevent them to function on the job market. ***Literacy is a major employability issue, and higher levels of literacy are increasingly important for minimal job success, even at the lowest end, minimum wage jobs.*** *Even though all clients in the study had to overcome other barriers in relation to their disability, in relation to issues not related to their disability, simply gaining higher literacy and learning skills directly contributed to employment and higher wages.*

MYTH # 2: *The use of children's criteria based on the discrepancy model for identification of adults will identify dyslexic or specific learning disabilities in adults.* False.

TRUTH

The discrepancy model employed in Florida and many other states is **INAPPROPRIATE** to identify children with dyslexia or specific learning disabilities (Lyon, 1995; Siegel, 1992; Stanovich, 1994; Stanovich and Siegal, 1994; Lyon, 1989), much less adults. The discrepancy model assumes a difference between intelligence scores and scores on standardized tests. In truth, this model is used as a means to exclude, not include, clients with dyslexia and learning disabilities.

DISCUSSION

Extensive genetic studies show that dyslexia exists in ten to fifteen percent of the general population (Lyon, 1995) However, less than five percent of dyslexic individuals are ever identified or receive proper assistance. The discrepancy model is designed to identify less than four percent of the general population as having a learning disability. In many instances, use of the discrepancy formulas is more likely to label a "slow learner" as Specific Learning Disabled than to truly identify the dyslexic. The discrepancy model was never meant to identify the fifteen percent of the population who are dyslexic or who have a different learning style. In effect, it was designed to exclude the majority of this population, not to include them. In Florida, dyslexia is NOT recognized by most K-12 public education systems and the only means for a dyslexic child to receive services in the K-12 system is for them to meet the discrepancy criteria for Specific Learning Disabled placement. Even when the teachers and parents recognize the child has a reading or learning disability, few dyslexics fall into the proper discrepancies required. Only the most severe can qualify as SLD.

Vocational Rehabilitation in Florida requires use of this children's K-12 discrepancy model in order to identify a client with a learning disability. Therefore, the present consideration by

WAGES Boards to involve Vocational Rehabilitation in providing service or in shifting services to SSI for this learning disabled portion of the Welfare to Work population is not realistic. Vocational Rehabilitation's discrepancy model cannot be met by the majority of African American women who have not been previously diagnosed, but who have dyslexia or specific learning disabilities, and who represent many of the present clients on the welfare rolls. One of the major reasons they cannot meet discrepancy criteria is that these African American women suffer from every possible bias involved in the testing of intelligence. Almost without exception, the scores obtained on intelligence tests are severely depressed and severely underestimate the intellectual potential of this group.

In general, the intelligence scores for unremediated dyslexics decline an average of twenty (20) points by age twelve, because of the lack of general education they receive and the innate language problems that they have. In addition to this factor, the Welfare to Work clients often have concomitant problems of cultural and gender bias which affects IQ scores negatively. Therefore, Vocational Rehabilitation is more likely to define this group as "slow learners" or "mentally handicapped" rather than as having dyslexia or SLD, thereby excluding them from appropriate services to address their literacy barrier.

Even if Vocational Rehabilitation qualifies a client as "learning disabled" in Florida, the present position is that they will NOT provide the service of proper literacy training as a part of Vocational Rehabilitation services. They insist that this should be done through adult education resources and refer the client to adult education, even when they know what is being offered has failed with the client in the past and will fail again. It is a problem of "follow the money" in terms of what services are actually provided to the disabled clients in K-12 or in the adult arena.

The dyslexic individual has specific neurological differences which can be defined, and he/she can be evaluated to determine proper diagnosis of a child or adult. They are often seen when children are labeled as "bright-but", but by adulthood the unremediated dyslexic is more often seen as "lazy", "could do it if they wanted to", "not paying attention or doing what they were told", and, unfortunately, "unreliable", "social or emotional problems", or "alcohol and drug problems". For the most part the adult dyslexic has experienced a life of failures, as opposed to successes. The disabilities associated with unremediated dyslexia are more predominate in their lives than the successes and abilities the remediated dyslexia has.

In terms of the clients in the study, we chose to use the Peabody Picture Vocabulary Intelligence Test to assess the language or vocabulary issues of the clients. We had also been asked by the local WAGES coalition whether we could determine or project from the IQ scores that the client presently had (assuming a severe depression and not using it for discrepancy models or diagnosis) how much gain they would make in the academic therapy program. We were also asked if we could determine for funding purposes how many hours of intervention would be required for them to gain sufficient literacy skills. Based on IQ scores only, the answer to both these questions is "No", that we could not project amount of gain or amount of time required.

TABLE 2

Comparison of IQ Level, Initial Reading/Comprehension Score and Months Gained

IQ	Initial Read Level	Change	Initial Comp. Level	Change
137	11.5	2 mos.	7.9	26 mos.
134	10.0	10 mos.	7.9	4 mos.
128	10.2	0	9.9	10 mos.
118	4.4	24 mos.	6.0	16 mos.
105	8.5	12 mos.	8.7	0
104	6.2	20 mos.	5.7	35 mos.
101	8.8	4 mos.	7.4	29 mos.
97	10.5	0	6.8	0
92	8.0	7 mos.	5.7	10 mos.
88	5.1	12 mos.	4.2	23 mos.
84	9.3	0	3.2	54 mos.
80	6.4	25 mos.	5.6	30 mos.
79	7.9	4 mos.	5.4	10 mos.
77	3.3	0	3.8	6 mos.
66	3.1	18 mos.	3.2	26 mos.
64	3.7	6 mos.	3.3	23 mos.

There was no correlation between the IQ score of the client and the amount of gain made in decoding or comprehension. For example, the highest IQ, 137, made 26 months gain; the average IQ, 101, made 29 months gain; the two lowest IQs, 66 and 64, made 23 and 26 months gain, respectively in comprehension. For decoding improvement, the client with an 80 IQ made the most gain with 25 months improvement next came the 118 IQ client with 24 months gain the 104 IQ with 20 months gain, and then the 66 IQ with 18 months gain. The client with the highest IQ only made a two month improvement in decoding.

The reason there is no correlation in reference to IQ scores alone is that the assessment of IQs for adult dyslexics is far from accurate, particularly for those in the Welfare to Work group where every bias in IQ testing would be manifested. For example, the client who had scored the 66 IQ was a WAGES client, but was obviously much more intelligent than this score would indicate. She was social, communicative, and had been able to "hide" her illiteracy. Only her immediate family members were aware of her not be able to read at all. She functioned well in her everyday world and was responsible for her children and their home. Her illiteracy precluded her being able to maintain employment, not her intellectual ability. She could only function in part-time minimum-wage jobs which did not allow her enough wage-earning ability to support her children. She could "hide" her inability to read in this environment, but still feared that if someone found out that she couldn't read, she would be considered "stupid".

TABLE 3

Comparison on Gray Oral Reading/Comprehension For

Clients on Assistance Vs Not on Any Assistance (WAGES/JTPA)

IQ	Initial Grade Gray Read	Months Change	Initial Grade Comprehension	Months Change
WAGES Clients				
80	6.4	25 mos.	5.6	30 mos.
92	8.0	7 mos.	5.7	10 mos.
88	5.1	12 mos.	4.2	23 mos.
64	3.7	6 mos.	3.3	23 mos.
66	3.1	18 mos.	3.2	26 mos.
JTPA Clients				
134	10.0	10 mos.	7.9	4 mos.
104	6.2	20 mos.	5.7	35 mos.
84	9.3	0	3.2	54 mos.
105	8.5	12 mos.	8.7	-12 mos.
118	4.4	24 mos.	6.0	16 mos.
None				
128	10.2	0	9.7	10 mos.
137	11.3	2 mos.	7.9	26 mos.
77	3.3	-1 mo.	3.8	6 mos.
79	7.9	4 mos.	5.4	10 mos.
101	8.8	4 mos.	7.4	29 mos.
97	10.5	0	6.8	0

The WAGES clients had the lowest scores on the IQ test, but made some of the best gains, not just because they started with lower reading or comprehension skills than the others in the study, but because their learning difference was being addressed for the first time in their lives. Their true potential is much higher than they had ever been given credit for.

*It is therefore essential that **the discrepancy formulas** for identification of learning disabilities or dyslexia **NOT BE APPLIED TO THIS GROUP** in order for them to be properly identified and given appropriate literacy training which matches their different learning style to obtain and maintain self-sufficiency in employment.* This proper identification in Florida's adult education or Vocational Rehabilitation programs will require policy changes at the state level which will stop avoidance of the provision of proper services. Starting to properly identify and provide appropriate services will make a difference in the employment outcome of these "unrecognized" and misdiagnosed individuals with disabilities.

It is also essential for WAGES counselors to use common sense, as opposed to relying on biased intellectual measures, to determine the true intellectual potential or ability which will result in appropriate job match or training. ***IQ test measures should NOT be used for inclusion or exclusion in training, service provided, or in job placement exclusively for the WAGES or***

Vocational Rehabilitation clients. These test measures should be suspect at best and possibly eliminated all together for this group in making any determination in regard to services to be provided. Individuals with true "low intellectual potential" do exist and may well qualify to be Welfare to Work and Vocational Rehabilitation clients who require additional assistance, but they have a "lower functional level" across the board, not just in academics or on test measures. Common sense and history outside an academic setting should be used to identify this group.

Unfortunately, this study shows that many of the WAGES clients would be misdiagnosed and extremely underestimated, being considered as "slow learners" or "mentally handicapped". In truth, they have the intellectual ability for training and higher job placement. Their true learning difference, dyslexia or specific learning disabilities, has simply not been addressed nor identified.

On a positive note, the State WAGES Board in Florida has chosen to define and address issues dealing with dyslexia, literacy, and employment through a substantial grant to Dyslexia Research Institute and Big Bend Jobs and Education Council, WAGES, Region 5 to develop a model for replication throughout the state of Florida (DRI, 1999).

MYTH # 3: *The learning needs of adults with dyslexia or learning disabilities are being met by existing adult education programs. The problem is the adult student doesn't come to class and drops out of the program. The student is irresponsible so gains cannot be made.* False.

TRUTH

The learning needs of the adults who are dyslexic or who have specific learning disabilities are not being met in adult education. **The sixty to eighty percent dropout rate in adult education is the fault of the system, not the student.** When dyslexic adults are properly identified and given proper training in literacy and learning skills, they remain in the program and increase in skill levels. When adult education models use the same system of instruction that failed to give this group literacy skills in K-12, it stands to reason the adult educators will also fail, which they do at an alarming rate and at excessive monetary cost to the taxpayer who is funding these programs and to the students who are not being served. To begin using computer models to save on labor cost in order to teach literacy skills to this group who cannot read compounds the disabled student's failure. Without literacy skills, one cannot learn to become literate through use of computer software, particularly the dyslexic who requires multisensory techniques and highly structured phonetic instruction to gain literacy skills (Hardman, 1998).

DISCUSSION

As children, these students had no choice but to tolerate without complaint whatever the teacher was doing that did not work until they became old enough to drop out or were finally promoted out of the system. As adults, they simply exit, which is their way of saying "more of the same cure that did not work before will not work now". Dropping out of the adult program is the only way they have to voice their disapproval toward ineffectual teaching approaches. Dyslexics have differently wired brains which means they also have a different learning style. Just because they physically matured does not change this innate learning difference nor their need for a different method of instruction to gain literacy and learning skills.

TABLE 4

Dyslexia Research Institute Summer Teacher Training Institute
Initial Report on the Clients who were Students

ACADEMIC GAINS DURING THE 6 WEEKS OR 120 HOURS OF MSLE THERAPY

TABE READING	Ave gain of **16.8** months *	Least change 0, most 54 mo.
TABE LANGUAGE	Ave gain of **33.6** months*	Least change 0, most 85 mo.

**Based on 12 students. Three students scores were so low initially that they were not given the TABE. In some instances the old TABE had been administered initially and all clients received the new TABE on completion. The new TABE is more difficult and does not correlate with the old TABE well. Therefore these gains would be the "minimum" changes. The four who were initially unable to take the TABE all scored higher than they did on the Grey on the post test.*

GREY ORAL READING Ave gain of **9** months, Least change 0, most 25 mo.
GREY COMPREHENSION Ave gain of **18.8** months, Least change 0, most 54 mo.
This is an accurate pre-post comparison of all 16 students with proper standardization.

The average gains made are shown for the TABE and Grey Oral Reading Test for the sixteen clients who completed the program. They received sixty hours of one-to-one reading and comprehension instruction, thirty hours of small group (3-6 clients grouped by ability) instruction in grammar/written expression, and thirty hours of small group study/test taking skills instruction using the Hardman Technique, a Multisensory Structured Language Education approach.

The pre-post tests on the Grey are a more accurate comparison of gains, since both pre-post tests were administered the same way. On the TABE, some of the unidentified dyslexic students took the pre-test timed and the post-test untimed, an accommodation required once their disability was identified. Also, some of the clients took the "old TABE" and some the "new TABE" in pre-testing. The "new TABE" is reported to be more difficult than the "old TABE"; therefore, we may have underestimated the gains made for the clients who fell into this category. We present the TABE to show the differences that were made when literacy instruction and proper accommodations were made, not for pre-post comparison.

In only sixty hours of addressing reading/comprehension, the gains made by the group are impressive. *It is important to realize that **NOT ONE** of the clients had ever achieved even a one months gain for one month of instruction during his/her schooling, in tutoring, or in ABE adult education programs.* All had been in one or more "literacy" or adult education programs as adults and had NOT been successful in those programs in terms of changing their skill levels. Instruction was provided by newly trained tutors who had sixty hours of "how to teach" the Hardman Technique over the course of the six weeks, but who actually began teaching the clients with approximately twenty hours of instruction. Adult teachers CAN be trained to teach properly to this learning difference in a relatively short period of time. Teacher training DOES make a difference in the ability to impact the literacy and learning skills of the dyslexic adult.

The retention rate for these clients exceeded the normal adult education drop-out rate! The seventeen initial clients involved in the study were given a contract which outlined their obligations, including their need to attend class five days a week for six weeks and that the cost that was being obligated to give them this opportunity was $3,600, (DRI, 1998). Sixteen clients completed the program. The seventeenth was released because of drug issues and has not been included in other data because of her early release. **This means a RETENTION RATE or SUCCESS RATE of 94%.**

Many of the clients made exemplary efforts to attend daily. One walked over seven miles one way each day in our Florida heat and summer rains. There were some absences, but less than was expected for this group who have so many additional problems to cope with. When this group of adults are receiving appropriate services, they DO NOT "drop-out". *When compared to the 60 to 80% drop-out rate in adult education for the same clients, it becomes obvious that the system, not the client, is failing. This also begs the policy makers to consider readjusting their attitudes about the expense of properly addressing this group.* ***Which is more expensive for the taxpayer paying the cost for a 80% dropout rate for adult programs not serving the client, or paying the cost for proper instruction and a 94% success rate?***

When taught literacy skills using the appropriate Multisensory Structured Language Education approaches endorsed by the International Dyslexia Society and the International Multisensory Structured Language Education Council which are shown to be effective through many longitudinal studies (Lyon, 1995), these dyslexic individuals can become literate and productive members of society. Less than five percent of K-12 teachers and an even lower percentage of adult educators have had any training in teaching with this different technique. ***Therefore, the blame for illiteracy in this otherwise bright group lies with the teachers and their ignorance of proper teaching techniques and not with the dyslexic who becomes disabled in a technological society where literacy skills are critical for employment.*** *Thus dyslexics suffer from a TEACHING DISABILITY, NOT A LEARNING DISABILITY!*

This raises another problem issue in Florida and throughout the United States. Even when the dyslexic or specific learning disabled individuals are properly identified, their odds of having teachers who are properly trained to give them the ability to become literate is little to none. Ignoring this population will not make the problem go away, The cost to deal with the complexity of problems brought about by not identifying and addressing the literacy, learning, and language differences when they are children is only compounded, becoming more costly and

complex by adulthood.

Again, state-level policies must be established to require teacher training in K-12 and adult education to include how to teach one of the MSLE systems of literacy instruction. Until this is accomplished, the high failure rate for dyslexic or SLD students in K-12 and adult education will continue.

MYTH # 4: *Dyslexia is a reading disability and all we have to address is the literacy issues.* False.

TRUTH

Dyslexia is an inherited, differently "wired" type of nervous system, which is manifested in a different learning style. A language, perceptual, and processing difference, dyslexia can result in reading and comprehension problems, if the dyslexic is not taught through a teaching style to match his/her learning style. Dyslexia can affect every area of life where language, perception, communication and processing are involved, including social and behavioral issues, not just academics (Galaburda, 1996).

DISCUSSION

In addition to literacy or communication issues, many dyslexic individuals also have more problems with diseases linked to inheritance, such as diabetes, alcoholism, allergies, thyroid conditions, etc. (Hardman & Morton, 1991) reported a link between illiteracy and health issues. The cause of illiteracy is not lack of health, nor is the cause of being unhealthy illiteracy. These are not necessarily linked by cause and effect. However, ***both illiteracy and poor health issues may be the result of genetics related to dyslexia*** which is rarely considered in the literature involving adult education, literacy, or Welfare to Work issues.

TABLE 5

Personal History - Medical: Family (parent, sibling, children)

Low Blood Sugar	5	Cancer	9	Asthma	7
Hay Fever	3	Drug Addiction	6	Nervous Breakdown	6
Allergies	11	Dyslexia	4	Learning Disabilities	8
Alcoholism	8	R. Arthritis	9	Migraines	4
ADD	4				

Personal History - Medical: Self

Low Blood Sugar	2	Cancer	0	Asthma	2
Hay Fever	2	Drug Addiction	2	Nervous Breakdown	1
Allergies	9	Dyslexia	5	Learning Disabilities	11
Alcoholism	1	R. Arthritis	4	Migraines	5
ADD	4				

As a group, the clients were the "sickest" well people or "wellest" sick people around. The illnesses reported in the study for the clients or for their immediate families are linked to auto-immune deficiencies and inherited diseases. Without exception, the clients and their families have a much higher rate of any of these diseases than could be expected in the normal population with an average age of 38.7 years.

In addition, as we had found in the previous study on the Link between Developmental Dyslexia, ADD, and Chemical Dependency, where only one person reported a personal history of alcoholism and two reported drug addiction, when we actually knew the clients and talked with them personally, almost every one would admit that alcohol or drugs was a problem for them. The only exceptions were those who, from a religious standpoint, abstained entirely from use of alcohol**.** They, like the parents in the Link study, knew that admitting to alcoholism or drug addiction is not what you are "supposed to do" if you want to be accepted in a program or a job**.**

When one of the WAGES's clients who was a participant in the study was assigned to a work site at a printing company by her counselor, the client had major bronchial problems, a constant cough, and, finally, was diagnosed with pneumonia. In essence, her history would have indicated that she was highly allergic, and therefore this medical condition should have been taken into consideration before placing her in a work setting that could only create medical problems for her. Unfortunately, with the low self concept that this client had and her fear of being sanctioned by her case worker if she didn't do what she was told to do, she kept returning to the job site each morning, only to get sicker by the end of each day. When we finally identified where she was working and had her reassigned, she recovered.

More information needs to be provided to Welfare to Work and Vocational Rehabilitation Case managers and adult educators in regard to the broader aspects and problems associated with dyslexia. The medical issues are only one example. Information on the problems of temporal disorientation, communication, processing speed differences, social and behavioral complexities,

and general strengths in deductive learning all need to be provided so that a more comprehensive service delivery plan with maximum potential for success for the disabled adult dyslexic can be instituted.

The dyslexic adults themselves need to know more about themselves, i.e., how they learn differently, the medical implications, the probability of their children inheriting the same patterns, and what they can do to use the phenomenal strengths which also can be attributed to their dyslexia. ***Dyslexia is worth having if you know how to use it. Just ask the millions of successful, productive adults who "got there" as a result of being dyslexic.***

CONCLUSIONS:

There are some major conclusions which can be drawn to debunk the myths surrounding the adult with dyslexia which should be reflected in policy changes in Welfare to Work and adult education systems nationally.

When taught properly, dyslexic adults make exceptional gains in academic skills. Those gains lead to higher salaries, better employment, and more self-sufficiency.

The failure to learn is not the fault of the dyslexic student, who can and will learn when taught using scientifically proven methods of instruction which match their learning style. The fault lies with educators who are ignorant of the proper methods to be used in instruction for a dyslexic who has a different learning style.

Improving the dyslexic adult's reading and comprehension skills does lead to greater employment opportunities and higher wages. This gain in skills can be accomplished in a relatively short period of time by properly trained tutors, but must be concentrated into shorter time frames than the "normal" semester types of delivery system used by most adult education programs. The reading/comprehension gains for the clients in this study were accomplished in six weeks with sixty hours of one-to-one instruction.

The use of children's discrepancy formulas to identify SLD or dyslexia is inappropriate and should not be used for adults. To use such formulas excludes clients from services. Further, these formulas are heavily biased negatively against African American women who have historically been undiagnosed for their true learning disability.

Teachers can be trained in a relatively short period to time in a Multisensory Structured Language Education Approach to effectively teach dyslexic students. Too few teachers have any knowledge of "how to teach differently" and therefore create the reading disability for the dyslexic. Tutors with 60 hours of training in the Hardman Technique had dramatic results with adult clients.

The use of intelligence tests with Welfare to Work clients should be used with caution because every bias associated with intelligence tesitng would impact the majority of these clients.

The complexities of dyslexia, not just the literacy issues, must be understood by professionals

providing services in the adult arena. They must lean to recognize the high percentage of their clients who are suffering from this "hidden disability". Finally, appropriate services and job training must be provided to dyslexic clients to help them become self-sufficient, employed, productive adults.

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