Screening for Learning Disabilities in Adult Basic Education Students

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Abstract

The extant literature offers little to describe the processes for screening students in adult basic education (ABE) programs for potential learning disabilities, referring adult students for diagnostic assessment, or barriers to obtaining diagnostic assessment for a learning disability. Without current documentation of a learning disability, ABE students are excluded from obtaining accommodations on the GED, in the workplace, and in postsecondary education, thereby limiting opportunities for meaningful participation in these pursuits. Attentive to those two concerns, this article presents results of a study investigating learning disability screening practices in Ohio ABE programs over a four-year period. Results document that screenings have increased, particularly following the implementation of statewide policies and professional development. While the rate of screenings increased, the overall number of students who were referred and then received a diagnostic assessment has remained low. Program administrators identified assessment costs as a significant barrier to obtaining diagnostic assessment. Additional research is needed to identify and describe specific barriers to diagnostic assessment.

Keywords: postsecondary, accommodations, screening, diagnostic assessment, adult literacy

Learning disabilities (LD) is a broad term describing a wide variety of disorders, including "disorders in one or more of the basic psychological processes involved in understanding or using spoken or written language" (IDEA, 2004 Section 300.8 (c)(10)). The definition of specific learning disability (SLD) used by the Ohio Adult Basic and Literacy Education (ABLE) Program is that published by the SLD Initiative and the National Research Center on Learning Disabilities:

> The central concept of SLD involves disorders of learning and cognition that are intrinsic to the individual. SLD are specific in the sense that these disorders each significantly affect a relatively narrow range of academic and performance outcomes. SLD may occur in combination with other disabling conditions, but they are not due primarily to other conditions, such as mental retardation, behavioral disturbance, lack of opportunities to learn, or primary sensory deficits. (National Research Center on Learning Disabilities, 2007, p. 2)

Although the definition varies according to the specific agency or association, most professionals agree that LD are intrinsic to the individual, persist across the lifespan and can, therefore, be diagnosed later in life (Taymans, 2012). These learning exceptionalities often become apparent again as adults return to school to improve basic skills, earn a GED credential, or transition to postsecondary education.

One pathway into (or back into) academics or towards employment for adult learners is the adult basic education (ABE) system; in Ohio, this system is labeled Adult Basic and Literacy Education (ABLE). Many ABLE students have struggled with formal learning, were unsuccessful in school, and may have undiagnosed LD (Corely & Taymans, 2002; Mellard, 1998; National Adult Literacy and Learning Disabilities Center, 1995; Patterson, 2008; Reder, 1995; Ross-Gordon, 1989). ABLE instructors are skilled at adapting their instruction to meet the needs of their adult learners. However, adequate documentation of a diagnosed disability is required for students with LD

to have ensured protection from discrimination due to disability, access to reasonable accommodations on standardized assessments (e.g., the GED) in most educational settings, and in the workplace. As adult learners plan to transition from ABLE programs into postsecondary education or employment, diagnostic evaluation and current documentation becomes ever more important.

Learning disabilities are recognized as a disability under a variety of federal laws, including the Individuals with Disabilities Education Act (IDEA), Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act (ADA) amendments. Under these laws, individuals with documented LD are entitled to support services and accommodations. Thus, without current documentation of a disability they can be excluded from formal accommodations, such as accessible facilities, modified work schedules, modified or adaptive equipment, readers, or modified examinations or training that can contribute both to access and success in the workplace, as well as in postsecondary education. As educators working closely with ABLE students during this transition phase, ABLE practitioners are well-positioned to ensure that students have the opportunity to receive a diagnostic evaluation.

Adults with undiagnosed LD are often undereducated, unemployed (or underemployed), and often struggle with low self-esteem and mental health problems (Lancaster & Mellard, 2005). Research indicates the high personal as well as societal costs of not providing diagnostic services and appropriate interventions for individuals with LD (Blackorby & Wagner, 1996; Murray, Goldstein, Nourse, & Edgar, 2000; Zigmond & Thornton, 1985). Considering that adults with low literacy skills or without a high school diploma are more likely to experience unemployment, live in poverty, and receive government assistance than their peers with higher literacy skills and higher levels of education (Mellard & Patterson, 2008), increasing and ensuring access to postsecondary education and training, including appropriate accommodations and support services, is critical to the social and economic success of families and communities (Gregg, 2009). While ABLE programs do not typically have the licensed professionals on staff to provide appropriate diagnostic evaluations for their students, instructors and support staff can screen and refer students to diagnosticians for full evaluations based on screening results (Payne, 1998). In this article, the authors provide an overview of procedures in Ohio ABLE programs for screening and referring students for diagnostic assessment for LD, consider potential barriers to accessing such services as described in the extant literature, and present new data from a survey of Ohio ABLE administrators querying their perceptions of barriers to diagnostic services. Additionally, the paper presents data collected from Ohio ABLE programs on screening and referral for diagnostic assessment from 2005 through 2008 and explores the possible impact of professional development and state policy initiatives on changing screening and referral rates.

Learning Disabilities in Adult Populations

The prevalence of LD in school-age children has been well-documented in recent decades. Between 2006 and 2010, the percentage of students served under IDEA who had a specific learning disability varied only slightly, staying between 3.5 and 4.0 percent (Data Accountability Center, 2011). In a review of the literature on LD in adults, Corely and Taymans (2002) noted that no single study has yet determined a generally accepted prevalence rate among adults. They suggest, however, that an estimate of the prevalence of LD among the general adult population can be extrapolated from data on the incidence of LD among school-age children. As reported in the extant literature, estimates for the rate of LD in the ABE population range from 5% to 80% (Mellard, 1998; Ross & Smith, 1990; White & Polson, 1999). One unpublished survey of adult literacy programs in Kansas estimates a 29% incidence of LD (Patterson, 2008). Although the field of adult education has increased its awareness and understanding of LD in adult students, currently there is no systematic data collection that describes the prevalence of LD (Mellard & Patterson, 2008; Sparks & Lovett, 2009). Because it is not required by the National Reporting System (NRS; U.S. Department of Education [USDE], 2001) the federal system that holds accountable adult education programs funded under the Workforce Investment Act (WIA) of 1998 (Title II of P.L. 105-220), few states gather these data from their adult learners (Patterson, 2008). Moreover, an increased understanding of screening and referral in ABE and ABLE programs could lead to a better understanding of student (and teacher) behaviors regarding referral for diagnostic assessment as well as the barriers to obtaining diagnostic assessment.

Screening for Learning Disabilities in Adult Populations

For the purposes of this article, learning disability screening tools are operationalized as instruments that can detect learning strengths and weaknesses and indicate potential LD but cannot provide a diagnosis of LD. They can identify areas that may need further exploration or evaluation, and may be interpreted to suggest a referral to a professional diagnostician. Screening tools can result in a false positive (i.e., a person is identified as possibly having a learning disability when, in fact, this is not the case) or a false negative (i.e., a person is not identified as possibly having a learning disability when, in fact, they may have a learning disability). These instruments can vary from a five-minute checklist to more in-depth assessments that can take one to two hours to complete. Screening tool results should be used in conjunction with other assessment tools to develop a clear understanding of the learner's academic needs and strengths. The more comprehensive screening instruments can (and should) also be used to inform classroom instruction in adult education programs.

Little research has been published on the screening instruments themselves or how they are being utilized by ABE programs nationally. The first author conducted an ERIC search using the search terms *screening*, *learning disability*, and *adult* delimiting to peer-reviewed studies. The search produced five results of which only two involved information relevant to screening adult learners for LD. In fact, in a recent review of the literature on services to adults with LD, Taymans et al. (2009) noted that, although there are recommended practices to screen adult learners for LD, "there is not a sufficient research base to support a set of valid and reliable practices" (p.10). The lack of published research limits the ability of professional development providers and state offices of adult education to provide high quality resources and professional development that can guide the practice of adult literacy instructors in the best use of screening instruments as tools for referral or to inform classroom instruction. Only to the degree that this screening and referral process is functioning and utilized will students with LD have access to the services and resources that can assist them in being successful in education and employment (Lancaster & Mellard, 2005; Patterson, 2008; Vogel & Holt, 2003).

Diagnostic Assessment for Learning Disabilities in Adults

A positive result using any of the available screening tools may result in a referral to a professional diagnostician, such as a clinical psychologist, for a full evaluation. Typically the evaluation will include an intelligence test, such as the *Wechsler Adult Intelligence Scale–Fourth Edition* (WAIS IV) (Wechsler, 2008), and an achievement test such as the *Woodcock Johnson® Psycho-Educational Battery–Revised* (WJ-III) (McGrew & Woodcock, 2001) or the *Wechsler Individual Achievement Test– Second Edition* (WIAT II) (Wechsler, 2005). Diagnosticians look for a discrepancy between intelligence and achievement, typically referred to as *unexpected underperformance*. The *DSM-IV* allows for a discrepancy of between 1 and 2 standard deviations (American Psychiatric Association, 2000). Because individuals with LD do not suffer from cognitive impairment but perform poorly in certain academic subjects, discrepancy models are intuitively logical (Kavale, 2002). The use of the discrepancy model for diagnosing learning disabilities in children, however, has many opponents who cite problems with, among other things, decisions about the amount of discrepancy necessary to warrant a diagnosis (Kavale, Kauffman, Bachmeier, & LeFever, 2009; Lovett & Gordon, 2005). It is possible, for example, for an individual to be diagnosed with a learning disability in one state and not in another, if the discrepancy models are different among the locations. Furthermore, IDEA 2004 no longer mandates the use of the discrepancy formula to identify LD in children birth to 21[1].

Limitations of the discrepancy model notwithstanding, evaluations conducted by a professional diagnostician can unlock important opportunities for students with LD. Only with a full and current diagnostic assessment can individuals access accommodations in the workplace, in ABE classrooms, on the GED, and in postsecondary education. Unfortunately, adult students, especially those with limited resources, face substantial barriers to obtaining the necessary diag-

1 IDEA 2004 states that "when determining whether a child has a specific learning disability ... a local educational agency shall not be required to take into consideration whether a child has a severe discrepancy between achievement and intellectual ability" ... a school "may use a process that determines if the child responds to scientific, research-based intervention as part of the evaluation procedures ..." (Section 1414(b) (6)). A thorough discussion of the implications of this change in identifying LD for adult learners is important, but beyond the scope of this article (see Colker, 2010 for further discussion).

nostic assessment (Pellegrino, Sermons, & Shaver, 2011). This can result in students not receiving the accommodations and support services to which they are entitled under the law, a disadvantage that students with access to adequate resources do not face.

Barriers to Obtaining Diagnostic Assessment

Common challenges faced in obtaining diagnostic services for ABE students are a lack of: (a) awareness of indicators of LD, (b) access to screening tools and training in their use, (c) access to diagnostic services, and (d) funds for evaluation (Ross-Gordon, Plotts, Joesel, & Wells, 2003). Polson & White (2000) indicated that the most prevalent barriers are related to lack of financial resources including limited budgets and lack of human resources, lack of training for staff, ineffective assessment tools, and an inadequate number of referral agencies. Even when referral agencies are available, many (if not most) clients served by adult education providers cannot afford the required fees, which range from $500 to $1500 in Ohio, but may be as high as several thousands of dollars in other states or regions.

Awareness of the challenges and barriers facing adult learners led the ABLE program in Ohio to focus on the issue of LD and to implement policies, design professional development and offer technical assistance to providers on serving adults with LD. Data discussed later in this paper provide initial insight into the perceptions of ABLE program administrators regarding barriers to diagnosis encountered by adult learners in their programs, and suggest that issues persist despite strong statewide emphasis that has made a positive impact on the number of students accessing services.

Policies and Professional Development on Learning Disabilities in the Ohio ABLE System

The Ohio ABLE state leadership system consists of four regional resource centers and one statewide center providing technical assistance, professional development, and instructional resources to ABLE practitioners across the state. The Ohio ABLE system has prioritized professional development related to serving adults with LD since 1998 and, as a state, has participated in two national projects developed through the National Adult Literacy and Learning Disabilities Center (1999): *Bridges to Practice: A Research-Based Approach to Serving Adults with Learning Disabilities* and more recently, *Learning to Achieve* in 2009 (http://lincs.ed.gov/programs/learningtoachieve/learningtoachieve.html). Participants in both statewide trainings were primarily ABLE instructors. Currently, state policy requires all ABLE instructors to participate in a series of online webinars on disability-related legislation, learning disability screening, and referral for diagnosis. Instructors then must attend a full-day workshop on the following topics: definitions of LD, self-determination, explicit instruction, reading disabilities, and writing disabilities.

Accountability measures were also established by the state. In 2005, a state advisory committee developed policy recommendations that were submitted to and accepted by the state ABLE director (see Appendix A). Since 2005, all ABLE programs have been required to submit an annual plan explaining how they will address each of the state policies for serving adults with LD. To assist ABLE administrators in addressing the state policies, the Central/Southeast ABLE Resource Center created an online tool, called the LD Policy and Planning Guide (http://www.tinyurl.com/ldguide). In addition, since 2005, ABLE administrators have been collecting data on screening and diagnosis (see Appendix B) that are reported in this paper. As previously mentioned, because it is not required by the National Reporting System, few states collect these data (Patterson, 2008).

State policy requires all Ohio programs to have a screening protocol in place. Programs can screen all students for LD, or—if only some students are screened—programs can develop a written policy that explains how students will be selected for screening. For example, programs may offer screening to students with consistent attendance who are not progressing after 90 days of instruction. Students can waive the screening if they choose and may select to be re-screened at any time. Ideally, screening should occur in a private room, one-on-one with the student. The screenings are typically conducted by instructional or support staff members who have participated in professional development on the relevant instrument.

Seven screening instruments are available to ABLE programs in Ohio[2] (see Table 1): PowerPath® to Education and Employment (Weisel, 1998), Washington-13, Destination Literacy (Learning Disabilities As-

2 There are other learning disability screening instruments available that can be used to screen Spanish-speaking adults (e.g., the Empire State Screening) but Ohio has decided not to screen students in ESOL classes because of the cultural and linguistic issues surrounding screening and diagnostic assessment (see McCardle, P., Keller-Allen, C., & Shuy, T, 2008; Peer & Reid, 2000; Shulman, 2002, for discussion).

Table 1

Learning Disabilities Screening Instruments Used in Ohio ABLE Programs

Screening Instrument	Focus	Format	Development	Time to Administer
Adult Learning Disabilities Screening (ALDS)	5 categories: Demographic Information, Rating Scale, Inventory, Interview, Validity Check (for examiner)	4-part battery consisting of self-report paper-pencil items and an interview; Internet version available[a]	Screening battery for both the Rating Scales and the Inventory has been reported to be in an 85%-90% correct classification, respectively.	45 min
Cooper Screening of Information Processing (C-SIP)[b]	Employment history, Attention, Oral Communication Organizational Skills, R/L Discrim., Motor Skills, Reading, Vocabulary, Reading Comp.	Self-report, interview, word list, handwriting sample, math skills assessment	No validity information is given; no reliability or SEM information provided	Short and long forms available (45 min/1.5 hrs)
Destination Literacy	Math and reading assessments	Performance assessment, interview and self-report	No validity information is given. No reliability or SEM information is given.	1 hr
Payne Inventory	Series of integrated questions about education, employment, life-based activities, family and health	Interview	Research supporting development of instrument was conducted with a welfare clientele; thus, tool may not be valid with other populations; no temporal, interrater, or SEM reliability given; validity reported[c]	1.5 hrs

(Table 1, continued)

PowerPath® to Education and Employment[d]	Attention difficulties screening, visual and auditory functions; reading encoding and decoding; visual and auditory processing	Interview, 4-part battery, perceptual screening	Correlated with Woodcock-Johnson Psycho-Educational Battery and weighted to predict Woodcock-Johnson full-scale score; no reliability or SEM information given; validity information reported[e]	Up to 2 hrs
Screening Test for Adults with Learning Difficulties and Strategies for Teaching Adults with Learning Difficulties (STALD)[f]	Basic and perceptual screening, word identification test, and reading passages placement	Perceptual screening, word identification test, reading passages	No reliability or validity reported	45 min
Washington-13 Learning Need Screening Tool[g]	Difficulties in school, perceived problems with math, spelling, memory	Brief interview with 13 questions	Thirteen items from the Payne Inventory that were found to be particularly associated with a LD diagnosis 73% of the time.	30 min

Note. ALDS (Mellard, 1999); Destination Literacy (Learning Disabilities Association of Canada, 1999).
[a]Online version available at https://www.kansasjoblink.com/ada/default.cfm).
[b]See http://www.learningdifferences.com/Main%20Page/C-SIP/C-SIP-Index.htm
[c]DESS Interim Report (p. 17): Using "Red Flag" cutoff correctly identified 64.3% of those with LD—errors were 3:1 false positive to false negative. Using "Pink Flag" cutoff, the overall accuracy decreased to 59.7%. From National Adult Literacy and Learning Disabilities Center (1999).
[d]See http://www.powerpath.com
[e]Used to screen participants in a literacy program for inclusion in a research study found 50 adults having a severe degree of LD. Additional assessments administered by a licensed psychologist found more than 85% of these to individuals to be diagnosed as LD (National Adult Literacy and Learning Disabilities Center, 1999).
[f]Eric Document ED287988.
[g]http://www.ncwd-youth.info/assets/guides/assessment/AssessGuide_Chapter2.doc

sociation of Canada, 1999), Adult Learning Disabilities Screening (ALDS) (Lancaster & Mellard, 2005), Payne Inventory (Payne, 1997), Screening Test for Adults with Learning Difficulties and Strategies for Teaching Adults with Learning Difficulties (STALD), and Cooper Screening of Information Processing (C-SIP).

The Washington-13 is still predominantly used, accounting for more than 95% of screenings offered statewide (see Table 2). The Washington-13 includes thirteen items from the Payne Inventory that were found to be particularly associated with a learning disability diagnosis. It has several advantages that may influence its predominance; most notably, it is free, requires no training, and takes approximately 15 minutes to administer, if used without the follow-up questions. The test was validated on clients receiving state assistance in Washington State and was shown to accurately predict the presence of a learning disability 73% of the time in that population (Hercik, 2000).

Program administrators may use a secondary instrument to gather additional information in order to be able to refer appropriately for diagnostic services. Results obtained from a recent survey of Ohio ABLE program administrators (Reynolds, Johnson, & Salzman, 2011) include the finding that 70% of respondents used an additional follow-up screening tool, often PowerPath® (48.5%), the C-SIP (13.8%), the ALDS (3.4%) and Destination Literacy (3.4%). The most oft-cited reason for conducting a follow-up screening however, was to gather more information for the classroom teacher (86.7%) (Reynolds et al., 2011). Although these more extensive (follow-up) instruments often require more than one hour to administer, they do provide more comprehensive and useful information for planning appropriate and effective instruction, including identifying specific areas of difficulty in visual processing, attention, reading, writing, and math.

Data and Method

As stated previously, Ohio ABLE programs are required to screen students for LD and to refer students who screen positive to a licensed professional for diagnosis. Individual programs develop their own screening protocols, however, and so there is variation in terms of who is screened, who conducts the screening, and what instrument is used (Reynolds & Seymour, 2007). In an attempt to develop better understandings of screening, referral, and diagnosis rates and processes among ABLE students in Ohio, this study reports results from a descriptive analysis using survey data collected by the researchers along with extant data collected by ABLE program administrators and made publicly available via the ABLELink database at the Ohio Literacy Resource Center at Kent State University. To provide additional context, demographic characteristics of enrolled Ohio ABLE students who were screened (also obtained from the ABLELink database) are included in Table 3.

Extant data from ABLELink[3] were used to describe variation in the screening instruments selected for use by ABLE programs in the state. To characterize the extent to which screenings occur among Ohio ABLE students, ABLELink data were used to compute the total number of students screened for LD (4-year total N = 62,786) expressed as a percentage of the total program enrollment over the same 4-year period (N = 197,311). To characterize the results of initial screening efforts and subsequent steps in the process, a parallel approach was taken to compute the total number of students screening positive (expressed as a percentage of the total number screened), the total number of students referred to a diagnostician (expressed as a percentage of the total number of students who screened positive), the total number of students refusing referral to a diagnostician (expressed as a percentage of the total number of students referred), and the total number of students diagnosed with a learning disability (expressed as a percentage of the total ABLE enrollment). Results of descriptive analyses are presented in tabular forms (see Table 4).

Ohio ABLE program administrators (n=118) were surveyed in fall 2009 in order to identify and describe their perceptions of the barriers to diagnostic assessment experienced by their adult students. Administrators were asked to rank the degree of challenge of various barriers on a 4-point scale (not a significant challenge, somewhat significant challenge, significant challenge, very significant challenge). The barriers included: (a) services are not located near to students, (b) cost for services are out of reach for students, (c) staff members are not aware of what services exist, (d) students do not want to access services, (e) staff members do not have time to assist students with accessing services. Survey data were collected via an online survey and results are reported in tabular form (see Table 5).

3 The study utilized *ABLELink* data from fiscal years 2005 – 2008 because the focus of the investigation was the impact of professional development and policies that had been implemented in 2006.

Table 2

Learning Disabilities Screening Instruments Used in Ohio ABLE Programs

	2005		2006		2007		2008	
Instrument	*n*	%	*n*	%	*n*	%	*n*	%
Washington-13	9,207	0.96	17,339	0.96	14,941	0.95	17,305	0.97
PowerPath®	393	0.04	526	0.03	497	0.03	220	0.01
Payne Inventory	2	0.00	100	0.01	229	0.01	277	0.02
STALD	34	0.00	38	0.00	55	0.00	51	0.00
Cooper	2	0.00	0	0.00	25	0.00	0	0.00
Destination Literacy	0	0.00	0	0.00	10	0.00	7	0.00
ALDS	0	0.00	4	0.00	0	0.00	0	0.00
Total Screenings	9,638		18,007		15,757		17,860	

Note. n = total number of screenings administered; % = percentage of total initial screenings administered.

Results

Ohio ABLE student screening reports from fiscal years 2005-2008 were aggregated by year and charted. Results illustrate a notable increase in the number of students screened as a percentage of total program enrollment over the four fiscal years. The percentage of students being screened increased substantially (from 18.95% in 2005 to 37.19% in 2006) and remained high in subsequent years. The total number of referrals to diagnostic services is also reported for each of the four years, as were total number of positive diagnoses. As indicated in Table 4, total enrollment was relatively consistent across time. Prior to the emphasis on service to students with LD and professional development for ABLE providers in 2005/2006, the percentage of students tested was relatively low compared to all of the years following (see Table 4). Equally if not more importantly, the number of students who screened positive has increased each year over the four years. Worth noting, however, the percentages of students obtaining a diagnosis decreased in 2007 and 2008.

The survey results indicated that more than 59% of responding Ohio ABLE program administrators (n=44) believed that the cost of the diagnostic assessment was the most significant barrier for ABLE students in accessing diagnostic services (see Table 5). Time to administer screening instruments and counsel students about referral was ranked as a significant challenge by more than 38% of the respondents. Lack of awareness was ranked as a somewhat significant challenge by a majority of respondents (58%), as was a lack of desire to obtain a diagnostic assessment (43%) and lack of proximity to diagnosticians (34%). This final challenge is particularly acute in rural communities in Ohio and nationally where proximity limits access to professional diagnosticians while concurrently increasing costs (cf. Levin, Manship, Chambers, Johnson, & Blankenship, 2011).

Table 3

Demographic Information for Enrolled Ohio ABLE Student Participating in Screening

	Fiscal Year							
	2005		2006		2007		2008	
	Female	Male	Female	Male	Female	Male	Female	Male
American Indian or Alaskan Native	44	36	44	46	37	48	60	54
Asian	71	26	81	31	86	41	123	1460
Black or African American	1771	1037	1897	989	2182	1149	2273	142
Hispanic or Latino	172	114	128	108	185	126	205	10
Native Hawaiian or Other Pacific Islander	9	5	9	6	13	6	12	3517
White	2798	1781	3194	2131	4179	3042	4532	56

Note. The numbers in the table reflect the number of enrolled Ohio ABLE students who were screened for LD (and do not include those who waived the screening).

Discussion

The Ohio ABLE state leadership system has offered professional development on serving adults with LD since 1998. A notable increase in screening and referral rates occurred in 2005, when LD became a clear state priority. State policies were instituted requiring ABLE programs to develop plans for offering LD screening to all students entering ABLE programs and offering referral to those who screen positive for a potential learning disability. Also in 2005, an online guide was constructed to support programs in complying with state policies. Professional development workshops on LD in the ABLE population became mandatory. The subsequent fiscal year shows the result of intensive professional development, emphases in state level policies and additional program support. While data from subsequent years show a reduction in screenings from 2006, the level did not return to pre-professional development levels.

It is important to note that even as the rate of screening for LD in ABLE programs has increased over the baseline year, the rate of student referral for full diagnostic evaluation has remained low. A number of factors could be suppressing this rate; these include teacher attitudes toward LD, lack of understanding of the referral process on the part of teachers or program administrators, lack of awareness of local diagnosticians, lack of local diagnosticians, lack of affordable services, as well as student transportation issues. Another issue of concern suggested by results is the increasing percentage of students choosing not to seek full diagnostic evaluation after being referred (see Table 4). While the reasons Ohio ABLE students are

Table 4

Ohio ABLE Students Screened, Referred for and Receiving Diagnosis for Learning Disability

Measure	2005	2006	2007	2008
Total Ohio ABLE Enrollment	50,869	48,417	48,209	50,537
Number screened (as % of total enrolled)	19%	37%	33%	35%
Number screened positive (as % of total *n* screened)	11%	12%	14%	13%
Number referred to diagnostician (as % of total screened positive)	7%	7%	9%	8%
Number refusing referral to diagnostician (as % of total referred)	19%	30%	18%	58%
Total number diagnosed with LD	38	44	35	41
Total receiving diagnosis (as % of total enrollment)	.075%	.091%	.073%	.081%

Note. The percentage of ABLE enrolled students diagnosed reflects the number of students receiving a diagnostic assessment as the result of being referred following a screening that indicated a likelihood of a learning disability. It does not include the number of students who entered an ABLE program with an existing diagnosis.

Table 5

Ohio ABLE Directors Rating of Barriers to Obtaining Diagnostic Assessment (2009)

	Rating Scale[a]					
Barrier	1	2	3	4	*M*	*n*
Location	15.9	34.1	27.3	15.9	2.46	44
Cost	11.4	9.1	18.2	59.1	3.28	44
Lack of Awareness	18.6	58.1	16.3	4.7	2.07	43
Lack of Student Interest	11.4	43.2	31.8	11.4	2.44	44
Staff Time	15.9	29.5	38.6	13.6	2.51	44

Note. n = Number of Ohio ABLE program directors responding. Total number of ABLE directors in Ohio in 2009 was 66. Numbers shown in rating columns are percentage of total respondents.
[a]1 = Not significant; 2 = Somewhat significant; 3 = Significant; 4 = Very significant.

not pursuing a diagnostic assessment following a positive screening for a LD remain unclear, it is reasonable to speculate that barriers of access and finances cited in national studies (Polson & White, 2000; Ross-Gordon et al., 2003) are contributing factors—and, perhaps, that such barriers might be exacerbated for rural students (Levin et al., 2011).

Worth further investigation is how the use of a second and more comprehensive screening instrument might impact the referral process. ABLE teachers who employ a follow up screening may see a connection between assessment of their learners and instruction, demonstrating an understanding of the benefit of the screening instruments to guide instruction as well as to provide an additional filter for potential referrals. With additional (and more comprehensive) information, teachers may be less inclined to refer students for costly and time consuming diagnostic testing because they would have the appropriate information needed to inform their instructional interventions. ABLE students may feel less inclined to pursue formal diagnostic assessment after completing a comprehensive screening and subsequently increasing their understanding of why and how they struggle academically.

Furthermore, the number of students obtaining a diagnosis after being referred for an assessment remains disproportionately low: less than .1% of the total ABLE population obtained a diagnosis each year between 2005 and 2008. Such a low diagnosis rate could be interpreted in two entirely different ways. One interpretation would be to suggest that the additional resources allocated to screenings may not be producing sufficient results to warrant their cost. An alternate interpretation of results would be to suggest that specific factors—programmatic, procedural, individual—suppress this percentage. That is, barriers related to policy and finances are preventing individuals with disabilities from being diagnosed and offered appropriate accommodations. Either interpretation would be conjectural at this point, but both point to the importance of further investigation.

Conclusions

This article presents results from a descriptive study investigating learning disability screening practices in Ohio ABE programs over a four-year period. Results document that screenings have increased (particularly following the implementation of statewide policies and professional development), but the overall number of students who were referred and then received a diagnostic assessment has remained low. Program administrators identified assessment costs as a significant barrier to obtaining diagnostic assessment.

If, as suggested by the results discussed within this study, cost is a primary barrier to diagnostic services and to formal accommodations in postsecondary education, adding diagnostic assessment to the evaluations that are covered in the student health insurance plans is one way that postsecondary institutions can increase student access to these services. Recognizing that many nontraditional and adult learners may not use the student health plans, postsecondary disability service providers should consider building partnerships with professionals who can offer affordable (sliding scale) diagnostic services. These partnerships will only be utilized, however, if students are aware of the services and understand the benefits of obtaining a diagnosis, reinforcing the importance of clear communication and outreach to the general student body that targets incoming students and nontraditional learners.

This study suggests that adult students may exit ABLE programs with undiagnosed LD. Indeed, Gregg (2009) states of nontraditional learners that "this population represents a significant number of unidentified individuals" (p.8). If these students choose to transition to postsecondary education it is possible that they may be enrolled for several semesters before they choose to (or can) access educational accommodations. With these students in mind, implementing a universal design (UD) approach to instruction in adult education programs as well as in postsecondary education can ensure that all learners, regardless of ability, diagnosed or not, have access to instruction (Gregg, 2009; Stahl, 2011). Disability service providers can provide professional development to faculty and staff regarding implementing UD. It is widely recognized that professionals at most postsecondary institutions, however, are already struggling with large case loads and inadequate staffing (National Council on Disability [NCD], 2003). Effective implementation of UD will require an institutional commitment to providing universal access to learning (not simply accommodations required under ADAAA) and sufficient staffing of disability service offices to provide awareness, training, and support services to faculty, students, and staff.

Implications for Future Research

Additional research is needed to disclose and understand the reasons for the low rates at which students in ABLE programs are diagnosed with a learning disability. Several issues likely exist: lack of affordable diagnostic services, lack of knowledge of the benefits of obtaining a diagnostic evaluation, and proximity to and availability of professionals trained in assessing LD in adults. Further research is needed to understand the impact of professional development regarding LD on teacher behaviors related to the referral process[4]. Furthermore, it is possible that teachers' or ABLE administrators' attitudes toward disabilities in general and diagnosis specifically have an effect on the rate at which students within specific programs are referred for formal diagnostic assessment. Well-designed attitudinal surveys of ABLE program administrators could begin to uncover connections between teacher attitudes and rates of referral.

As mentioned previously, screening instruments—particularly comprehensive or follow-up instruments—can provide relevant information for the classroom teacher and adult learner. Their use should not be limited to a step in the process toward a diagnosis. ABLE teachers can (and should) use the results from the screenings to help their adult learners better understand their challenges and strengths. This can also enable teachers to better target their instruction to provide appropriate interventions, while being appropriately cautious in recognizing that their use is not a replacement for diagnosis by a trained professional and explaining that the adaptations that they may provide for learners in the ABLE classroom do not allow individuals to be accommodated in other settings.

Finally, Patterson (2008) suggested further research on the relationship between policies related to serving adults with disabilities and outcomes on a regional and national scale. This current effort is a necessary but insufficient step in that analysis. Future research efforts should look at individual states' policies and the relationship between policy implementation and identification of LD. Ultimately, a deeper understanding of the ABLE population will result in increased access to services and resources which will help adult learners with LD succeed achieve their educational and employment goals.

4 As noted earlier, this study utilized ABLELink data from fiscal years 2005 – 2008 because the focus of the investigation was the impact of professional development and policies that had been implemented in 2006. The authors suggest and recommend a further analysis of data from subsequent years and an expansion of the analysis to include data from other states.

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Appendix A

2010 Ohio ABLE Special Needs Policies

Policy 1.0: ABLE programs will not discriminate against individuals with disabilities and will ensure that all services are accessible. Federal law requires that ABLE programs meet the administrative requirements of the Americans with Disabilities Act.

1. Provide the name of the individual who is your designated ADA Coordinator and explain his or her responsibilities.
2. Type your Equal Opportunity Statement and indicate where it is provided.
3. Describe your grievance policy for staff and clients.
4. Describe your process for conducting a Self-Evaluation of your program to determine its physical and educational accessibility.
5. Describe your plan for making your program both physically and educationally accessible.

Policy 2.0: ABLE programs will have a documented learning disabilities screening process in place, which will include the following elements:

1. At what point(s) in the Student Experience Model (SEM) is (are) screening for learning disabilities screening offered?
2. What learning disabilities screening instrument(s) is used?
3. What consistent criteria determine who is offered a learning disabilities screening?
4. Who conducts the learning disabilities screening?
5. How is training provided to staff administering the learning disabilities screening?
6. How are the results of the learning disabilities screening shared with students?
7. How will screening information be used to modify and adapt instruction for the students?

Policy 3.0: ABLE programs will maintain a signed waiver if a student declines a learning disability screening

1. What is your procedure for obtaining a waiver?
2. What is your procedure for storing waiver information?

Policy 4.0: ABLE programs will keep confidential all information related to students' disclosure and documentation of disability and/or screening information. In the case of the latter, a program will obtain a signed and dated Release of Information from the student in order to share screening information.

1. What is procedure for maintaining confidentiality of students' records?
2. What is your procedure for obtaining a Release of Information (when sought and how shared)?

Policy 5.0: ABLE programs will maintain current information about professional diagnosis, vision screening, and hearing screening and make it accessible to students with suspected, disclosed or diagnosed learning disabilities and/or vision or hearing difficulties.
Programs serving ESOL should also respond to the questions below.

1. What is your procedure for identifying local professionals and/or agencies?
2. What is your procedure for offering this information to students?

Policy 6.0: ABLE programs will provide instructional adaptations to assist students as needed.

1. What are the types of adaptations you frequently provide in the classroom?
2. What is your procedure for introducing the adaptations to the student?
3. What is your procedure for determining with the student if the adaptations are helpful to the students?

Policy 7.0: ABLE programs will provide accommodations to students with diagnosed learning disabilities to help ensure they have equal access to services.

1. List the types of accommodations your program provides based on the results of the student's diagnostic testing.
2. Provide assurances that approved accommodations may be used by students in all instructional and testing situations.
3. What is your process for documenting use of accommodations and their effectiveness (i.e., success or failure) and how they are applied in instructional and testing situations?
4. Provide assurances that accommodations are provided for students with a documented disability unless they pose an undue hardship for the agency.
5. Provide a description of your process for entering accommodation information into ABLElink.

Policy 8.0: ABLE programs will have sufficient number of staff members adequately trained to understand the legal requirements surrounding service to students with learning disabilities, to administer LD screenings and to plan and implement instructional adaptations and accommodations.

1. List staff members who have attended the LD Core Training Series.
2. What staff members have attended other LD-related training (specify the training)?
3. What training will be pursued in the next program year? (note: make sure that staff training needs noted in this plan are reflected in the PPDPs and IPDPs)

Policy 9.0: Programs will collect data for input into ABLElink per OBR requirements.

1. Provide assurances that screening, referral, and accommodation information will be recorded on the Special Needs Tracking Form.
2. What procedures will you put into place to ensure that required data are collected and entered into ABLElink?

Policy 10.0 ABLE programs will annually update their Learning Disabilities Plan per requirements established by the Ohio Board of Regents ABLE Program.

1. What is your plan for annually updating your LD Policy and Planning Guide?

Appendix B

SPECIAL NEEDS FORM
SFY 2012 (2011-2012)

Name _____
Last First M.I. Maiden or other former name

Social Security #: ___-___-___ GED Security #: ___-___-___ Site: _____ Instructor: _____

SCREENING

Screening:	Offered	Conducted[1]	Refused[2]	Date
Learning disability	☐	☐	☐	
Hearing	☐	☐	☐	
Vision	☐	☐	☐	

Learning disability instrument given:
☐ ALDS ☐ Cooper ☐ Destination Literacy
☐ Payne Inventory ☐ PowerPath ☐ STALD
☐ Washington 13

Screening results indicate probability of LD: ☐ Yes ☐ No

[1] ***Student signed Screening Consent Form:*** ☐ Yes ☐ No ☐ N/A
[2] ***Student signed Waiver of Consent Form:*** ☐ Yes ☐ No
(only necessary if screening services are refused)

INFORMATION RELEASED TO OTHER AGENCIES

Student signed Release of Information Form: ☐ Yes ☐ No
(only necessary if information is released to others)

REFERRAL AND DIAGNOSIS

Information about assessment of:	Offered	Given	Refused[3]	Date
Learning disability	☐	☐	☐	
Hearing	☐	☐	☐	
Vision	☐	☐	☐	

Results of referral/diagnostic evaluation:
☐ No evidence of learning disability, hearing, or vision problem
☐ Specific learning disability
- ☐ Reading ☐ Receptive/expressive language
- ☐ Math ☐ Phonological
- ☐ Written expressive ☐ Not otherwise specified

☐ Hearing problem
Hearing aids ☐ recommended ☐ received
☐ Vision problem
Glasses or contacts ☐ recommended ☐ received

[3] ***Student signed Waiver of Referral Information:*** ☐ Yes ☐ No
(only necessary if referral services are refused)

EDUCATIONAL ACCOMMODATIONS

(FOR DIAGNOSED STUDENTS ONLY)

Accommodations provided:
☐ Colored overlays ☐ Audiocassette*
☐ Ear plugs ☐ Braille*
☐ Graph paper for math ☐ Extended time*
☐ Large print ☐ Private room*
☐ Magnifying strip ☐ Scribe*
☐ Seating near natural light ☐ Supervised frequent breaks*
☐ Straight edge ☐ Talking calculator*
☐ Other: _____

* Prior approval needed for GED

GED accommodations form completed? ☐ Yes ☐ No

COMMENTS/ADDITIONAL INFORMATION

(include any diagnosis, not listed above, for which an accommodation was provided)