

UNITED STATES - COUNTRY BACKGROUND REPORT

Literacy Challenges Facing the United States

Well over 40% of US adults have literacy skills that allow them at most to perform simple, everyday literacy tasks, according to the National Assessment of Adult Literacy (NAAL), a national survey conducted in 2003. Fourteen per cent or 30 million adults have literacy skills that allow them to perform no more than the most simple and concrete literacy tasks. Another 29% or 63 million can perform simple, everyday literacy activities. In a global economy that requires adults to have strong literacy skills and educational credentials, these statistics describe a significant national literacy challenge.

Low literacy correlates with a host of difficulties, both individual and societal, such as low income (Barton & Jenkins, 1995), poor job prospects (White, Strucker, & Bosworth, 2006), poor health (Kutner et al., 2005), and even longevity (National Center for Education Statistics, 2006). When the US economy was based on manufacturing, adults with low basic skills who lacked a high school diploma could find well-paid, stable jobs in manufacturing for their entire working lives. But as long as ten years ago, according to a team of researchers, the minimum skills required for a middle class job already had evolved to include ninth grade reading and math skills, effective oral and written communication, solving problems that required testing hypotheses, and using computers (Murnane & Levy, 1996).

Everyday life increasingly requires strong basic skills to select and manage finances, retirement plans, and health care plans. The Internet represents a comprehensive source of information on these and other matters, but good literacy skills are required to use it and to understand the information it yields. The American Medical Association has said that individuals with low literacy incur medical expenses that are up to four times greater than patients with adequate literacy skills, costing the health care system billions of dollars annually in doctor visits and hospital stays.

Low literacy levels among a large portion of the nation's adult population are particularly troubling for America's economic future because the majority of workers who will be in the workforce 20 years in the future are the same people who are in it now, according to *Tough Choices or Tough Times: The Report of the New Commission on the Skills of the American Workforce*. The 2003 NAAL found that adults who did not complete high school had the lowest level literacy skills across all three scales—prose, document, and quantitative. In 2005, the Department of Labor reported 150 million people in the workforce. In that year, according to the National Center for Education Statistics, 3 million students graduated from high school, but only 2% of the nation's workforce comes from public school each year. So, the majority of workers are those in the adult population today. Researchers tracking the needs of employers know that the vast majority of jobs now require workers who are able to read at the high school level or better (White et al., 2006).

The New Commission on the Skills of the American Workforce reports that, “Whereas, for most of the 20th century the United States could take pride in having the best educated workforce in the world, that is no longer true. Over the past 30 years, one country after another has surpassed us in the proportion of their entering workforce with the equivalent of a high school diploma and many more are on the verge of doing so. Thirty years ago the United States could lay claim to having 30% of the world’s population of college graduates. Today that proportion has fallen to 14% and is continuing to fall” the Workforce report notes.

The National Assessment of Adult Literacy

Through the NAAL, the US undertook a comprehensive measurement of adults’ literacy skills using a definition of literacy as “using printed and written information to function in society, to achieve one’s goals, and to develop one’s knowledge and potential,” a definition consonant with the definition of literacy established in the statute that governs adult literacy programme funding.

The NAAL measured three types of literacy:

Prose literacy. The knowledge and skills needed to search, comprehend, and use information from continuous texts. Prose examples include editorials, news stories, brochures, and instructional materials.

Document literacy. The knowledge and skills needed to search, comprehend, and use information from noncontinuous texts. Document examples include job applications, train schedules, maps, and drug and food labels.

Quantitative literacy. The knowledge and skills needed to identify and perform computations using numbers that are embedded in printed materials. Examples include balancing a checkbook, figuring out a tip, completing an order form, and determining the amount of interest on a loan from an advertisement.

The NAAL reported adults’ performance in each type of literacy using the following performance levels:

Below Basic: Indicates no more than the most simple and concrete literacy skills. Adults at this level range from being nonliterate in English to being able to, for example, locate easily identifiable information in short prose text or to locate numbers using them to perform simple quantitative operations (primarily addition) when mathematical information is very concrete and familiar.

Basic: Indicates skills necessary to perform simple and everyday literacy activities. Adults with Basic skills are able to: read and understand information in short, commonplace prose texts; locate easy identifiable quantitative information and use it to solve simple, one-step problems with a specified arithmetic operation.

Intermediate: Indicates skills necessary to perform moderately challenging literacy activities. Key abilities of adults at the Intermediate level include being able to read and understand moderately dense, less commonplace prose texts as well as summarizing; and locating less familiar quantitative information and using it to solve problems when the arithmetic operation is not specified or easily inferred.

Proficient: Indicates skills necessary to perform more complex and challenging literacy activities. Key abilities of adults at the Proficient level include: the ability to read lengthy, complex, abstract prose texts as well as synthesizing information and making complex inferences; and locating more abstract quantitative information and using it to solve multi-step problems when the arithmetic operations are not easily inferred and the problems are more complex.

Results from the NAAL

- In 2003, 30 million adults or 14% of the US adult population scored at the Below Basic level in prose literacy. Sixty-three million adults or 29% scored at the Basic level in prose literacy. Ninety-five million adults or 44% scored at the Intermediate level in prose literacy while 28 million or 13% scored at the Proficient level. In addition, 11 million adults were found to be nonliterate in English, including 7 million who could not answer simple test questions and 4 million who could not take the test because of language barriers.
- While two-thirds of the nation's adults demonstrated document literacy skills at or above the Intermediate level, just 13% of those adults had Proficient—the highest skill level—document literacy skills. But 34% of the adults tested had Below Basic or Basic document literacy skills.
- Between 1992 and 2003, there was a decrease in the percentage of the total population scoring Below Basic in quantitative literacy.
- In the adult prison population, 56% of inmates had prose literacy skills at the Below Basic or Basic level, 50% had document literacy skills at the Below Basic or Basic level, and 78% had quantitative literacy skills at the Basic or Below Basic level.
- Adults who spoke only English before starting school had higher average health literacy than adults who spoke other languages alone or other languages and English. In addition, some 49% of adults who had never attended or did not complete high school had Below Basic health literacy compared with 15% of adults who ended their education with a high school diploma and 3% with a bachelor's degree.

Findings on Gender

- According to the 2003 data, 12% of women had Below Basic prose literacy skills, and 29% had Basic prose literacy skills. Another 46% had Intermediate prose literacy skills while 14% had Proficient skills. Between 1992 and 2003, women's average document and quantitative literacy increased, while women's average prose literacy remained unchanged.

- Based on 2003 data, women had higher average prose and document literacy than men, and men had higher average quantitative literacy than women. In 1992, there was no difference between men and women in their average prose literacy, although men had higher average document and quantitative literacy than women.
- For men during this same period, the average prose literacy of men declined and there was no statistically significant change in their qualitative literacy.
- The percentage of women with Below Basic quantitative and document literacy declined while the percentage of men at this level also declined as did the percentage of men with Proficient prose and document literacy. The percentage of women with Proficient quantitative literacy, however, increased.

Findings on Race and Ethnicity

- In 2003, 24% of Black adults scored at the Below Basic level in prose literacy while 43% scored at the Basic Level. Thirty-one per cent had Intermediate prose literacy skills and 2% had Proficient prose skills.
- Forty-four per cent of Hispanic adults scored at the Below Basic level in prose literacy, and 30% scored at the Basic level. Twenty-three per cent scored at the Intermediate level and 4% had Proficient prose skills.
- Between 1992 and 2003, there was an increase in skill level for some groups. Most notably, average prose scores increased for Blacks and Asians/Pacific Islanders. Average document and quantitative literacy scores also increased for Black adults.
- In 2003, the average prose, document, and quantitative literacy of White and Asian/Pacific Islander adults was higher than for Black and Hispanic adults.
- Black adults had higher average prose and document literacy than Hispanic adults.
- Black adults had higher average prose, document, and quantitative literacy in 2003 than in 1992. The average prose literacy of Asian/Pacific Islander adults increased as well. During the same period, the average prose and document literacy of Hispanic adults declined, while their average quantitative literacy remained the same. Average quantitative literacy increased among white adults, but there were no significant changes among White adults in prose and document literacy.
- Between 1992-2003: there was a decrease in the percentage of White, Black, and Asian/Pacific Islander adults with *Below Basic* prose, document, and quantitative literacy, while there was an increase in the percentage of Hispanic adults with *Below Basic* prose and document literacy.
- The percentage of White adults with Proficient document literacy also declined.

How the Federal Adult Education Programme Operates

Adult education programmes in the United States (US) that receive Federal funds are currently governed by Title II of the Workforce Investment Act of 1998, also known as the Adult Education and Family Literacy Act (AEFLA). The statute establishes the fundamentals of the adult education system, including the definition of literacy; the purposes of the programme; who is eligible for the programme; how Federal dollars are dispersed; and accountability requirements.

According to AEFLA, literacy is "...an individual's ability to read, write, and speak in English, compute, and solve problems, at levels of proficiency necessary to function on the job, in the family of the individual, and in society..." Broader than a view of literacy as only the ability to read, this definition connects literacy skills with shared national values such as successful participation in the workforce, family well-being, and contributions to the broader society.

The statute sets forth three purposes of adult education and literacy services. They are to:

- Assist adults to become literate and obtain the knowledge and skills necessary for employment and self-sufficiency;
- Assist adults who are parents to obtain the educational skills necessary to become full partners in the educational development of their children; and
- Assist adults in the completion of a secondary school education.

The statute also creates a performance accountability system "...to assess the effectiveness of eligible agencies in achieving continuous improvement..." in order "to optimize the return on investment of Federal funds in adult education and literacy activities. Core indicators of performance include:

- "Demonstrated improvements in literacy skill levels in reading, writing, and speaking the English language, numeracy, problem solving, English language acquisition and other literacy skills;
- Placement in, retention in, or completion of, postsecondary education, training, unsubsidized employment or career advancement;
- Receipt of a secondary school diploma or its recognized equivalent."

Eligible participants in adult education and literacy programmes are at least 16 years of age; not enrolled or required to be enrolled in secondary school under State law; and lack adequate basic skills and do not have a secondary school diploma or equivalent, or are "unable to speak, read or write the English language." According to the National Center for Education Statistics, 43 million adults have not finished high school.

The Federally-funded adult education system primarily serves learners who are currently employed and who are in the prime of their working lives. According to *Adult Education in America: A First Look at Results from the Adult Education Program and Learner Surveys*, published by the Educational Testing Service in March 2007, 85% of students were most likely to have income from salaries or wages suggesting that they are

employed rather than receiving public benefits. Forty-five per cent of learners were between the ages of 25 and 44, and another 25% were between 19 and 24. Slightly more than half were women (55%), and slightly less than half (44%) were enrolled in English for Speakers of Other Languages (ESOL) classes. Almost 40% were enrolled in Adult Basic Education (ABE) level classes and the remainder (17%) in Adult Secondary Education, in which the primary purpose of instruction is often to prepare students to pass a high school equivalency exam that will earn them a GED (General Educational Development).

Historically, a GED has been an important goal in adult education because it provides a way for adults who did not complete a traditional high school education to earn high school credentials that can help them find or keep a job or to qualify for future education. It was started in the US after World War II to serve as a bridge to college admission for those who were not able to complete high school before going to war. Since that time, the GED has expanded greatly and is now offered throughout the US and the world to those who have left high school before graduating.

The GED exam consists of five high-school equivalency tests published and administered by the American Council on Education. In order to receive a GED credential, test takers must score about as well as the average high school graduate would score in five academic areas: writing, social studies, reading, science, and math.

For young, non-minority high school dropouts who are close to passing the GED, actually passing the GED means an average increase in salary of about 15-19% or 1 500 USD (Tyler, Murnane, & Willett, 2000). According to the 2003 National Assessment of Adult Literacy, those with a GED scored, on average, about as well as high school graduates and better than those who did not receive a high school diploma or GED credential (Kutner, Greenberg, & Baer, 2005).

According to the American Council on Education, 60% of those taking the GED plan to go on to college, and 95% of colleges in the US accept the GED credential. Community Colleges will typically accept a GED credential while 4-year colleges will often not waive traditional requirements (additional test results, such as the SAT or ACT; grade point average; letters of reference; and so on).

The English Language Learners enrolled in Federally-funded adult education come to programmes with a wide range of educational backgrounds, including nearly a third with at least some education beyond the postsecondary level, according to the ETS report. Of the 34% of learners in the ETS survey who reported not having had any schooling in the United States, 4% had no education at all before they arrived here and 24% completed school up to the eighth grade. Almost 40% completed some secondary education, and 28% had continued past the secondary level, including 13% with bachelor's degrees. Overall, 29% of participants in adult education learned Spanish as their first language, 7% learned an Asian language, and 2% learned a European language.

In Program Year 2004-2005, total enrollment in Federally-funded adult education programmes was 2.58 million, according to the US Department of Education. More current data from a survey conducted in 2006 by the National Council of State Directors of Adult Education (NCSDAE) reports 917 programmes in 40 states with waiting lists that total approximately 100 000 adults. The demand for additional services varies by state with waiting lists in some New York programmes so long that lotteries for seats were established rather than keeping waiting lists. And according to the NCSDAE survey, 44% of local programmes in Rhode Island have waiting lists. The highest need, 77%, is for adults at the lowest levels of adult basic education and English literacy. For 52% of adults in Rhode Island, the wait to access services was 12 months or more.

The Federally-funded programmes that serve adult learners are typically not large or generously funded. Again, according to the ETS report, most programmes are small or mid-sized with a median enrolment of 318 learners, a median budget of 199 000 USD, and a median per-student expenditure of 626 USD. Slightly more than half of all adult education programmes (54%) are run by local education agencies. The majority of programmes offered classes more than 40 weeks per year with 4-6 hours per week of instruction the most common category of class time. Only 17% of adult education programme staff are full-time employees who work more than 35 hours per week. Part-time staff account for 40% of the workforce. Volunteers account for the largest share, 43%, but this is due to exceptionally large numbers in only two states.

Despite the Federally-funded adult literacy system's modest profile, it achieves results that suggest it is already making a substantial contribution to the overall education and workforce development system. In 2006, the Federally-funded Adult Education State Grants programme run by the US Department of Education's Office of Vocational and Adult Education (OVAE) received the highest possible rating – effective – from the Office of Management and Budget using its Program Assessment Rating Tool or PART. The PART report identified the per cent of adult education students who obtained a GED or high school diploma increased by 55% from 2001 to 2006, and the Federal cost per GED or diploma was 3 081 USD compared to a range of 12 000 USD to 90 000 USD for other Federal job training programmes. In addition, according to the ETS report, "Overall, a little more than one-third of learners completed an educational functioning level by the end of the program year" with the largest percentage of completers coming from the ASE level. On average learners participated in adult education for under 100 hours during the year.

Views of Literacy and Assessment

Assessment in education is, essentially, "gathering data to understand the strengths and weaknesses of student learning" (Harris and Hodges, 1995). When students are learning literacy skills, assessment might best be described as gathering data to understand the strengths and weaknesses of student reading and writing abilities and practices in various contexts. Specifically, data may be gathered on the crucial components of the reading process in alphabetic language: alphabets (phonemic awareness and word analysis, or knowledge of the basic sounds in a language and of letter-sound connections); fluency

(the ability to read with speed and ease); vocabulary; and comprehension (Chall, 1994; Chall and Curtis, 1992; Snow, Burns, & Griffith, 1998; NRP, 2000). Crucial components of the writing process include planning (generating and organizing ideas), forward production (translating ideas into text), editing and revising, word production (spelling), and sentence production (syntax and morphology) (Hayes, 1996; Levy & Ransdell, 1997). Finally, motivation is an important component of both the reading and writing process (Baker, Dreher, & Guthrie, 2000).

Adult literacy assessment has been strongly influenced by standardized and norm-referenced testing and more recent innovations in assessment such as criterion-referenced testing and performance or alternative assessment. Standardized tests use standard procedures for administration and scoring to help increase the reliability of the results. Detailed examination manuals and trained examiners are used. Norm-referenced tests use statistical procedures to compare an examinee's scores to a larger, representative group (the norm group). Norm-referenced scores that allow one person's score to be compared to another's include percentile ranks, stanines, scale scores, and grade-equivalent scores. The first standardized, norm-referenced literacy assessments for adults were developed in the 1950s and 1960s (the Tests of Adult Basic Education and the Adult Basic Learning Exam, for example).

Criterion-referenced tests assume that literacy can be represented along a continuum from very few literacy abilities or competencies to advanced literacy or full competency, and criterion-referenced scores indicate how far along that continuum an adult is. Performance-based assessments measure how well adults are able to complete reading tasks in a realistic situation, such as using a manual to troubleshoot a problem in a workplace setting. When used appropriately to minimize possible negative side effects, such as test anxiety, self-esteem issues, and cultural biases, testing can be used in adult literacy for screening and placing students in the right programme; diagnosing individual strengths and weaknesses in literacy; measuring individual growth; self-evaluation or personal growth; and programme evaluation and accountability (Askov, Van Horn, & Carmen, 1997; Joint Committee on Standards for Educational and Psychological Testing, 1999; Joint Task Force on Assessment, 1994).

Assessment Policies and Structures

The United States has conducted a series of large-scale assessments of adult literacy over the past 40 years, culminating in the National Adult Literacy Survey (NALS; Kirsch, 1993) and the National Assessment of Adult Literacy (NAAL; Kutner et al., 2005). Both are criterion-referenced assessments. The NALS and the NAAL measured reading comprehension (having examinees answer questions about a text they read). For a subgroup of poor readers, the NAAL also included measures of alphabets (decoding and phonemic awareness) and fluency.

These large-scale, summative assessments can be contrasted with formative assessments completed by adult educators to identify learner needs in order to design individual

programmes of instruction. Assessment models in adult literacy suggest giving diagnostic pre-tests to identify learner strengths and weaknesses, instruction based on these results, informal assessment during instruction to make adjustments as needed, and post-tests to measure learner gain (Askov *et al*, 1997). Another model, developed initially for children (Chall & Curtis, 1992; Roswell and Chall, 1994), suggests assessing each component of the reading process in order to develop a comprehensive reading profile of relative strengths and weaknesses in reading. This profile, consisting of scores on tests of alphabets, fluency, vocabulary, and comprehension, can be used to address all crucial aspects of the reading process while taking into account the unique needs of each learner. As in the other model, ongoing assessment is used to adjust instruction as needed.

Both models stress the unique needs and abilities that adults bring to literacy instruction (Chall, 1994). These include adults' wide variety of experiences and an extensive knowledge base which should be taken into account and used during assessment. Adults have affective needs and should be involved as partners in the assessment process. It is assumed that adults will be given assessment results and that this will promote learning.

Until recently, federal efforts to improve literacy assessment had little success. Following the Adult Education Act of 1996, assessment practices in adult education programmes were found to be haphazard. Reading assessment was either not being done or results were reported in ways that made interpretation difficult (Padak and Padak, 1994). The National Literacy Act of 1991 incorporated accountability requirements. States were asked to develop quality indicators as a step toward the development of measurable performance standards. Nevertheless, several reports were critical of the federal and state adult literacy systems and of assessment practices in particular, questioning, for example, the validity of established assessment procedures (General Accounting Office, 1995; Kutner *et al.*, 1996).

The National Reporting System (NRS) was implemented in the summer of 2000 under the Adult Education and Family Literacy Act (AEFLA) of 1998. Under AEFLA, all states' funding was to be based at least in part on their performance, including demonstrated improvement in adults' literacy skills. The NRS provides specific guidelines for literacy assessment, recording assessment results, and reporting results through an online, Internet-based system. Types of standards, measures, and collection procedures are provided as well as technical and training assistance to support data collection and reporting. Gain in reading or writing ability is a key measure in the NRS system. Adults must be pre-tested when entering a programme to determine their literacy level and post-tested when leaving to determine gain. Programmes must use state-approved, standardized, norm-referenced tests to place students in one of six basic education levels defined by the NRS. The first four levels cover literacy development through the beginning of high school (beginning Adult Basic Education) or ABE literacy, beginning basic education, low intermediate basic education, and high intermediate basic education). The last two levels cover secondary (high school) education (low and high adult secondary education).

Performance standards are given for each NRS level. These describe what an adult at each level is expected to be able to do with his or her reading and writing and are keyed to scores from the most commonly used standardized tests of literacy. Although standardized tests are given, results are not reported directly but are first translated into the NRS literacy levels which are then used for reporting purposes.

Formative Assessment Research and Practice

By far the most common standardized tests used in adult literacy programmes include the Tests of Adult Basic Education (or TABE, a reading comprehension test), the practice GED, the Comprehensive Adult Student Assessment System (or CASAS, a competency-based assessment that addresses literacy in various contexts including, for example, the workplace), and the Basic English Skills test (or BEST, a literacy measure for English language learners) (Tamassia et al., 2007; National Reporting System).

Largely because of the newly adopted NRS requirements, 85 % of adult education programmes report using standardized assessments. These programmes use them for placement (86%), to monitor literacy gains (84%), to adapt instruction (65%), and to screen learners to identify special needs, such as a learning disability (39%) (Tamassia et al, 2007).

The Adult Literacy Research Working Group, a group of experts in adult education and literacy co-sponsored by the National Institute for Literacy and the National Center for the Study of Adult Learning and Literacy, reviewed the adult reading assessment and instruction research (Kruidenier, 2002). Research indicates that it is important to assess each component of reading. Adults may have any level of proficiency, from beginning to advanced, in a component. Adults also vary in their abilities across components. Their profiles are not flat. They may be strong in some areas (decoding, for example) but weak in others (comprehension, for example). For these reasons, it is important to assess each component of reading in order to construct profiles of learners' strengths and needs. These profiles are essential for planning effective instruction at both the individual and classroom levels so that each aspect of reading is addressed appropriately.

Unfortunately, none of the tests that are commonly used in adult education programmes provide scores for all of the components of reading. Of the four assessments discussed above (the TABE, GED, CASAS, and BEST), all have separate scores for reading comprehension, three have scores for vocabulary, none measure fluency, three have scores for word analysis, and two measure phonemic awareness. In order to create complete profiles of their learners, programmes will need to combine results from different tests into one profile. Only a few of the tests measure writing ability and none address the multiple components of writing.

In order to apply any of the various assessment models, including the use of assessment profiles, teachers need training. Lack of resources and the reliance on part-time staff and volunteers means that the average adult education teacher will have less training and experience than teachers in the elementary and secondary education systems. Formative

assessment requires a greater degree of knowledge and experience than evaluations of adult literacy programmes suggest current staff have (Kutner et al., 1996; Tamassia et al., 2007). Teachers must have extensive experience with assessment in order to effectively integrate it with their instruction (Calfee & Hiebert, 1991).

The National Institute for Literacy has developed several research-based resources for professional development in adult reading that are being provided to adult educators. These include workshops, newsletters, and webcasts as well as the first comprehensive book about research-based adult reading assessment and instruction strategies (McShane, 2005). An interactive website focusing on the use of reading assessment profiles is also available (Davidson et al., 2003). The US Department of Education, Office of Vocational and Adult Education, is offering comprehensive training for adult educators in the use of these and other resources through their STAR project (Student Achievement in Reading). NIFL has also developed an instrument that can be used to evaluate the effects on teacher knowledge of these training efforts, the *Assessment of Reading Instruction Knowledge – Adults* (Ziegler et al., 2007).

These efforts need to be extended with research on whether and how approaches to assessment in adult education lead to gains in literacy ability, and how effective various approaches to professional development are. Research is also needed on the most neglected aspects of adult literacy assessment: writing assessment, formal measures for motivation, and formal measures that address all components of reading and writing in order to obtain complete and useful profiles of adult learners' strengths and needs.

Government policy will need to reflect these research needs. In addition, ways in which to evaluate the reliability of data being collected for the NRS could be developed. Common guidelines or standards for auditing programmes, for example, could be provided. A truly reliable measure of effectiveness in the application of models for assessment and instruction can come only from the consistent administration of a common assessment instrument.

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