Adult literacy: The Next Generation

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In 1993, the first report from the federally funded National Adult Literacy Survey (NALS), the most comprehensive study of its kind, was released. The good news was that nearly 95% of adult Americans could read at a fourth-grade level or better, showing that illiteracy in its most basic form was relatively low, but the bad news was that nearly half of all adult Americans scored in the lowest two levels of literacy, levels that the National Educational Goals Panel (1994) has stated are well below what American workers need to be competitive in an increasingly global economy.

Although these findings shocked public opinion, research showed that it was possible, even likely, that America would continue to fail to achieve a fully literate society. For example, the NALS indicated that nearly 25% of America’s adults with an average of 10 years of formal schooling had only fourth-grade literacy skills or lower (Kirsch, Jungeblut, Jenkins, & Kolstad, 1993). In many ethnic minority groups, fewer than 50% of the children complete 10 of the compulsory 12 grades of schooling (National Center on Educational Statistics, 1993a). Low achievement in schools, early dropout from schools, along with the continued flow of poorly educated immigrants, increase the population of adults in need of further skills at least as fast as adult education programs attempt to reduce the size of this group through remediation and retraining. In other words, low-literate Americans may now be seen as a chronic feature of the American educational landscape, with all the well-known statistical relationships with increased children’s school failure, lower worker productivity, crime, and welfare.

Fortunately, we know considerably more now than we did a decade or even a half decade ago about how to improve literacy in America. This article focuses principally on the 1990s, which have seen a number of new and important studies that can provide guidance for policymakers, practitioners, and researchers in the field of adult literacy. Seven areas, corresponding to key topics in the improvement of adult literacy services, are delineated; in each, we provide a brief analysis of major research findings, followed by a series of recommendations. The article concludes with a synthesis of the recent past and a prognosis for what we believe will be the next generation of adult literacy work in America.

Literacy and Economic Well-Being

Data from around the world provide clear evidence that literacy and education are closely related to a nation’s economic development (Berryman, 1994; OECD/Statistics Canada, 1995, 1997; Wagner, 1992). In the United States, the NALS provides the best data set that bears on the relationship of adult literacy to individual employment and income. The NALS was a national household survey of adults aged 16 years and older conducted in the first eight months of 1992. Approximately 26,000 adults from throughout the U.S. answered questions on a lengthy background survey covering education, language experiences, employment, education, and reading/writing practices, after which they completed items on a literacy assessment instrument. This instrument required mostly open-ended responses to functional literacy tasks derived from three scales: prose, document, and quantitative. The results of the assessment are reported as scale scores; in addition, five levels of performance were defined, based on the complexity of the assessment items.

Data analyses from the NALS indicated that the income of American adults was substantially higher for each level of literacy attained. Those at Level 1 earned about $240 weekly, while those at Level 5 earned about $680 weekly (Kirsch et al., 1993, p. xvii). Furthermore, a re-analysis of the NALS data showed that income differences between ethnic and racial groups tend to disappear when both literacy and education factors are statistically controlled. Finally, research suggests that adults who return to complete a high school equivalency diploma (GED) improve their earnings potential (Murnane, Willett, & Boudett, 1995).

Recommendations

There seems little doubt that the combined effects of education and literacy are strongly related to an individual’s life chances of employment and income in contemporary America, as indeed around the world. Although these data are correlational, the variety and range of evidence suggests that low literacy is a real impediment on the ladder

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to economic viability as we approach 2000. Furthermore, given the inability of our formal schooling system to guarantee sufficient literacy for all children and youth, the reality is that adult education and training are essential as one means for addressing our nation’s economic and social goals. Although subject to inevitable limitations and critiques (some of which are discussed below), such adult education programs can assist participants to increase their literacy proficiencies and rates of employment and earnings, thereby to decrease their reliance on public assistance. If America is to stay economically competitive and if federal and state governments are truly intent on trying to resolve broad equity concerns through social programs that increase opportunity, adult literacy education (in its many forms) appears to be a promising and well-targeted investment.

Literacy Instruction and Measurement

A central issue in adult literacy instruction is the identification of effective instructional practices for different subject areas and different types of learners. To achieve this, we need first to define the core subjects for adult literacy and the ranges of proficiency desired. Learners need to be classified according to instructionally relevant variables such as (a) skilled in spoken English as a second language (ESL) but literate in their native language, (b) spoken ESL but not literate in any language, (c) competent in reading and writing but poor math skills, (d) learning disabled, and so forth. By contrast, most literacy programs today classify learners according to their grade levels (as measured by standardized tests), even though the meaning of “grade level” for adults has been shown to be of dubious value (Tuinnman, Kirsch, & Wagner, 1997; Venekly, Bristow, & Sabatini, 1997). Furthermore, there exist remarkably few practical diagnostic instruments for use in adult literacy programs. Even instructors without sufficient information for tailoring instruction. Recent longitudinal research suggests that appropriate early diagnostic assessment may be more effective than the standardized test measures that have been used for decades for both evaluation and diagnostic purposes (Sabatini, Venekly, & Bristow, 1995).

A second instructional issue is the question of what role learners should play in the setting of learning goals. Much of adult literacy instruction today is, by philosophy and design, oriented toward the stated needs and interests of program participants, particularly at the adult basic education (ABE) level. Students enter and exit as they choose and generally select their own goals and content interests (Venekly, Bristow, & Sabatini, 1997). Whether this approach is effective for either the adult participants or the overall outcomes of adult literacy programs needs serious inquiry. An important constraint on learner-set goals is the striking lack of information that adult education programs provide to adult learners about appropriate and attainable learning goals. Unlike in K-12 schooling, there are few established “milestones” or consumer guides to help inform learners about their personal time investments as they relate to possible and probable learning achievement (e.g., advances in writing skills) and life goals (e.g., job advancement).

A third related issue concerns the degree of specificity of instruction. Current instruction emphasizes general basic skills instruction in reading, writing, and math, with the assumption that these skills will transfer to other contexts. Yet research shows that relatively little transfer occurs and that a better balance is needed between functional context learning and basic skills practice (Miuludecky, Albers, & Peers, 1994). Functional context learning needs to be a primary motivation for basic skills learning, as has been demonstrated especially in the military? In contrast to the child learner, the adult literacy student needs a better (consumer’s) sense of specific purposes to which skill learning may be put in order to balance these against the obvious drain on time, effort, and resources of investing in instructional time.

In this regard, the quantitative component of literacy instruction (numeracy or adult mathematics) deserves special mention as it has traditionally received little attention from policymakers and program planners and only now has become the focus of research attention. A national survey on adult mathematical literacy provision indicated that more than 80% of adult students receive math-related instruction, but less than 5% of teachers in programs are certified to teach mathematics, and few receive preservice training in mathematics instruction (Gal & Sabatini, 1994). Given its importance in interpreting the increasing use of graphs, charts, and statistics in the printed media, health prescriptions, and telecommunications (such as the World Wide Web), adult numeracy is likely to receive much greater attention in the coming years.

Overall, the central issues in literacy skill measurement are related to the identification of real and perceived outcomes from adult literacy instruction and the design of valid and reliable testing instruments. At present, adult literacy testing is limited by a paucity of appropriate instruments, particularly for writing and mathematical knowledge, and a lack of normative data for the age ranges encountered in most programs as well as for the learning-disabled. Especially problematic is the assessment of adults at the low end of the performance scales (Venekly et al., 1997).11

Recommendations

Diagnostic and remediation models for adult literacy instruction need to be much better understood, with a likely shift of resources to incorporate more extensive diagnostic testing in literacy and basic skills programs. This would mean less standardized testing of the current variety and more emphasis on individualized needs. Within the subject areas taught, an appropriate balance between functional context learning and basic skills practice is needed. Also, individual change in performance needs to be measured by both standardized basic skills tests that have been normed on adults and by applied tasks that are representative of everyday literacy challenges. Program evaluation should be redesigned to give separate measures for at least three different types of learners: those found through diagnostic testing to have special needs, those for whom diagnostic tests predict normal progress, and those who are not working toward academic certification. Overall, the linkages between instruction, assessment, outcomes, and professional development need increased attention for the reasons enumerated above, but also because of the increasing diversity in both program types and the populations served by them. Finally, more (and more accurate) information about instructional and other outcomes needs to be provided directly to the adult consumers of learning services.
Workforce Literacy and Competitiveness

According to the Organisation for Economic Co-operation and Development (OECD), workplace skills and worker training are now among the major preoccupations of all industrialized nations (Hirsch & Wagner, 1994; Stern & Wagner, 1998). Although business, union, and taxpayer resources for workplace literacy education have grown, adult education services are available to only a fraction of the individuals who need it. Most services are provided through large employers and unions, with taxpayers providing a lesser degree of support (cf. Chisman, 1989; Faisan, Vencill, McVey, Hollenbeck, & Anderson, 1992; Mikulecky, 1995; Tucker, 1990).

Moral and ethical decisions as well as educational ones need to be made for maximizing returns on workplace literacy for individuals and for the economy in general. Should, for example, people with exceedingly low literacy abilities be placed in GED and workplace skills training programs when we have data suggesting that the likelihood of their making substantial gains is limited? On one hand, the system should not exclude any individual on the basis of a literacy test or any other single test, nor should it guide that person to a narrow learning track that would lead, at best, to a marginal entry-level job. On the other hand, when expected learning gains from such individuals are low and when more skilled and motivated workers are available, there may be economic reasons for giving the latter a higher priority for retraining for more advanced jobs. Naturally, it would be best to have sufficient funds to retrain everyone for well-paying jobs, but such funding is not likely to be available from either public or private sources.14

Of course, motivational issues in the workplace also play a role. Longitudinal evidence now suggests that when there are strong incentives (e.g., increased compensation) for developing literacy skills, not only do workers more readily participate in literacy education programs, but (according to at least one study) they also increase their literacy skills, the company improves its productivity, and the workers increase their earnings (Reder, 1996). Research on clients in welfare-to-work programs who participate in literacy education activities shows that with appropriately designed programs, literacy education also can result in increased proficiencies and reduced long-term dependency rates (Cohen, Golonka, Ooms, Owen, & Maynard, 1994; Reder & Wikehmd, 1994). In sum, the evidence on outcomes of recent workplace literacy programs is beginning to indicate that when adult learners are motivated and make progress in learning, they also raise the level of their economic well-being.

The issue of incentives is also relevant at the policy level. Studies suggest that the availability of adult literacy and basic education programs is directly affected by the incentive structures (often built into tax rebates for the private sector) of different nations. Acrossnational comparison has shown that countries (e.g., France and Sweden) that have progressive and incentive-linked tax structures to expand job training are quite successful in getting workers to participate in programs of basic education and retraining (Hirsch & Wagner, 1994).

Recommendations

There are a number of policy recommendations that may be derived from this research on workplace and workforce literacy education. First, the number of adult learning services should be increased, with reallocation of resources to foster and reward consortia of businesses, unions, educators, and private groups that develop cooperative ways to provide service to underserved populations. Second, there needs to be increased diversity in delivery systems so that small to medium-sized businesses have as much relative opportunity to offer worker education as do large corporations. Third, the overall quality of training programs needs attention, such as linking literacy program goals and outcomes to quality assurance guidelines, which are now standard in businesses competing in the global economy Fourth, policymakers should consider the balance between individual skills and learning potential, the requirements for job skills, and reward for learning new skills; a system that can maximize learner gains in light of employment needs is more attainable than has previously been imagined. Finally, it is becoming increasingly clear that effective designs should provide incentives for basic skills development that are both direct and readily perceived by the learners as well as by the public or private providers themselves. This could be achieved by allocating a percentage of employment benefits to be available for basic-skills and other training or by working through tax incentives to employers.

English as a Second Language

To date, there are no reliable figures on the number of adults in the United States who are in need of ESL services. Estimates based on data from the 1990 census and on the results of the NALS suggest that approximately 12-14 million adults have limited proficiency in the English language.15 Each year, federal, state, and local agencies serve approximately 1.8 million ESL adults (nearly half of the total participation in ESL education programs), and the demand for ESL services considerably exceeds the supply, resulting in waiting lists for ESL students.

The adults who enroll in ESL classes across the nation are by no means a homogeneous group. Their reasons for attending ESL literacy programs are varied and include such reasons as to seek or maintain employment, to obtain the GED diploma, to assist children with schoolwork, to gain entry into institutions of higher education, or to become licensed in the professions they practiced before immigrating to the United States (cf. Skilton Sylvester & Carlo, 1995).

The quality and efficiency of ESL literacy programs have been especially difficult to determine, as empirical research has only recently begun on how poorly educated adults acquire literacy in a second language (Carlo & Royer, 1996; Carlo & Skilton Sylvester, 1996; Gillespie, 1994; Sol0zrano, 1994).16 One of the classic debates in this domain is the degree to which ESL adult learners benefit from literacy in their native language before learning to read in English. Recent research suggests that adult learners from quite contrasting backgrounds (Spanish, Cambodian, and Korean) benefit from their native language literacy skills (i.e., there was a transfer in basic reading skills from the first to the second literacy, irrespective of the contrasting scripts involved). Interestingly, speaking skills in English were found to be less important for English literacy than had been previously thought, as ESL adult learners could go directly to beginning English reading without becoming skilled English speakers.”
Recommendations

The needs of ESL literacy services are large, comprising currently about half of the provision for adult literacy education in the United States. If our thesis concerning the importance of tailoring instructional programs to adult learner profiles and interests is correct, then much of the English-centered legislation for ESL programs that has been favored over the past decades may likely be counterproductive. Adult education cannot and should not be equated with the K-12 bilingual education policy of this country. Determining accurate and consumer-relevant information about the specialized needs for adult ESL services should be a high priority. Research and development into the literacy learning processes of adult ESL learners, appropriate curricula, and especially the power of technology (see later section) are important in this domain. ESL will continue to be one of the major areas of literacy work in American adult education. It has, to date, been given far too little attention.

Family Literacy

The number of literacy programs that involve intergenerational literacy activities for families has been steadily increasing during the past 30 years. At present, three programs in the United States have become popular models for family literacy services: the Kenan Trust Family Literacy Project, the Missouri Parents As Teachers Program, and Parents As Partners in Reading. These three programs illustrate key features of family literacy services, such as (a) providing help to families during children's infancy; (b) encouraging language development and interactive play as precursors to emergent literacy; (c) furnishing books, print materials, and lessons that are appropriate for the literacy levels of family members; (d) enabling access to medical, social, and educational services that go beyond literacy learning activities; and (e) building feelings of self-efficacy in children and parents through success in literacy and collaboration with others. Many family literacy programs synthesize these principles with their own philosophical orientations and historical practices, thus creating a variety of eclectic programs (Edwards, 1991; Gadsden, 1994; Gadsden, Scheffer, & Hardman, 1994). Besides supporting a context that is conducive to adult literacy instruction, such programs also build on the belief, now widely accepted, that parental literacy is one of the prime predictors of the children's school achievement.

In spite of the growing popularity of and legislative funding increases for family literacy programs, our knowledge in this area still remains rather limited. This knowledge base was created largely from recent program evaluations, which focus more on cost and effectiveness of specific programs than on the dynamics of intergenerational learning and instruction. The only major evaluation study to date gave generally high marks to Even Start-funded family literacy programs (U.S. Department of Education, 1994). This study showed that family literacy programs may be more attractive than standard ABE programs among many low-income families (partly because they provide more services, such as child care); the rate of GED completion for family literacy participants was about twice as high as in regular adult education programs; perhaps most important, parents' expectations for their children's learning increased significantly after family literacy activities. Finally, in low-income urban communities where many family literacy programs are targeted for Hispanic, African-American, and other families of color, intergenerational programs may offer some special hope for solving long-term socioeconomic problems through enhanced family support mechanisms. The research to date in related areas suggests that change in these families will not come quickly or easily and that success will be largely dependent on the ability of the communities themselves to make such programs their own, as well as for the programs to link with other support mechanisms designed to help low-income families (Anderson, 1994; Edwards, 1994; Johnson, Sum, & Weill, 1988).

Recommendations

If the future of adult literacy depends significantly on the motivation of individuals to learn, then the growth and promise of family literacy is considerable. Family literacy programs can offer a fuller range of incentives than most other adult education programs simply because they intersect with more aspects of individuals' lives, especially in the crucial area of child care and welfare. Family literacy programs are already an important component in the range of adult education offerings in the United States and are growing rapidly. As with Head Start, these programs need to be properly field-tested and understood. Of particular importance will be the development of specialized training for family literacy instructors, who need to understand methodologies for teaching both young children and adults and the interactional activities that are important for parent-child learning. Also, there needs to be a significant emphasis on the cultural aspects of family literacy programs. At the level of policy, family literacy programs need better coordination within the broader network of family support services, especially in the context of recent federal legislation on welfare reform.

Professionalization and Standards

As in other areas of education, the committed involvement of professional adult educators is required for any system-wide change, as well as for the development of standards. One major limitation for change in adult literacy is that the large majority of the instructional staff (87% in 1993) is part time (often volunteers with high turnover). Furthermore, there have been only limited resources and strategies for involving full-time literacy professionals as well as volunteer and part-time instructors and tutors in meaningful professional development. In the training-oriented approaches that have dominated the field, staff development has been constructed as largely remedial, designed in response to perceived gaps in teachers' or tutors' knowledge (Lytle, Belzer, & Reumann, 1992a).

Rather than expanding individual repertoires of specific, predetermined classroom practices, new approaches to professional development need to be responsive to such factors as the variability of local contexts and individual needs, communities and settings for literacy education, and the importance of practitioners' roles in determining appropriate content, processes, and outcomes for staff and professional development. A promising form of professional...
development is one that can engage practitioners in the pursuit of genuine questions and problems over time in ways that alter their own perspectives and practice. Like the adult learners themselves, professional staff need to feel more in control, more motivated, and more empowered. At present, adult educators receive only a fraction of the training and up-to-date information on learning achievement that is regularly provided to K-12 professionals (Lytle, Belzer, & Reumann, 1992b; Shanahan, Meehan, & Mogge, 1994).

Goals 2000 and other recent federal legislation have called for a variety of standards-setting efforts in numerous fields, including that of adult literacy. However, it is far from clear what sorts of standards are needed and for which areas of literacy work. Based on the experience of K-12 subject areas, standards can include laborious efforts to obtain consensus on learning achievement, training, instructional methods, funding, and more. In the relatively fragmented field of adult literacy education, standards-setting will pose major challenges (Sites, Foley, & Wagner, 1995). To date, work on adult literacy content standards has been rather narrowly focused on definitions of workplace competencies, such as SCANS (Secretary of Labor’s Commission on Achieving Necessary Skills, 1991, 1992). Fundamental disagreements among experts over what constitutes functional literacy will make it difficult to move beyond work-related literacy skills to define more general literacy competencies (Venezky, 1992).

Recommendations

There is a major need to develop structures that enable administrators, teachers, and tutors to make professional staff training and development an ongoing process within programs and to link staff development more closely with program improvement and evaluation. Teachers and administrators should have more opportunities to investigate local problems and to invent local solutions. Increasing the proportion of full-time instructors is an essential element of enhanced professional development; indeed, without more full-time staff programs have little incentive to spend scarce resources on teacher development.

In pursuit of this goal, interagency cluster relationships can strengthen the design and implementation of staff development activities that bring together a range of service providers. Overall, there is a need to support regional, state, and national networks that enable literacy educators from diverse settings and types of programs to form communities for generating and disseminating knowledge in the field.

With respect to standards-setting, there is little doubt that this will be a high-stakes enterprise in adult literacy. Our early sense is that adult literacy content standards should not focus on developing curricular frameworks, but rather should attempt to establish a more coherent vision of desirable skills and knowledge across a diversity of contexts. Finally, a note of caution: While standards-setting activities can be attractive to policymakers, they can also drain intellectual and fiscal resources from less glamorous areas such as staff development and instructional design. Standards-setting in education can only be practicable if based on a research-based foundation; in adult literacy, we remain still on relatively thin ice.

Technology

Adult literacy programs lag far behind in using newer electronic technologies—computers, wireless communications, videotapes, and the like—for instruction, although several major reports have highlighted the need for such assistance (Harvey-Morgan, Hopey, & Rethemeyer, 1996; Hopey, Harvey-Morgan & Rethemeyer, 1996; U.S. Congress, Office of Technology Assessment, 1993). Demonstration projects at NCAL, including Internet-based services, a collaborative training network, and a series of national satellite videoconferences have shown that important gains are possible even from a limited set of these technologies.

The findings from two NCAL technology surveys showed that many adult literacy programs have a foothold in technology, mainly using microcomputers for administrative purposes, but they have only limited funds to purchase the hardware and software required for instructional or communication purposes. The level of interest in expanding the use of technology, however, appears high among most practitioners—higher than many state and federal policymakers have recognized heretofore. The 1993 OTA study found that there existed a significant amount of technology in business, homes, school, colleges, and libraries that might be tapped for literacy and learning, but that most was rarely shared or used in partnership with literacy programs.

Since the OTA report, the number of adult literacy providers who are using online communications has grown significantly. Access to online resources and to the Internet has become increasingly easy and relatively low cost. A number of bulletin boards and information servers have sprung up, some of which are specifically designed to fill information needs in adult literacy. These technologies hold enormous promise for the future because they can reduce the isolation that many adult literacy providers and students experience, facilitate communication between staff and students within and between programs, increase access to high-quality materials and emerging research, streamline administrative and reporting processes, and help provide the delivery vehicle for innovative instructional and staff development approaches (Rethemeyer, 1995; Turner, 1993). However, across these new technologies, there is inadequate staff training and a lack of information on effective implementation and specialized uses.

Both the OTA study and the NCAL surveys found that economic considerations were perceived to be a major impediment to technology implementation in adult literacy programs. The NCAL surveys showed that funding topped the list of constraints among service providers. But economics goes even further, by inhibiting the development of the market for adult literacy software. The OTA study found that total spending for adult literacy software in 1993 was only $15 million, a tiny fraction (less than 1%) of the resources spent on all educational software development. Unfortunately, the market remains small because of a paradox: Few practitioners purchase adult literacy software because most offerings are of low quality, while software developers are reluctant to invest in product development because the market demand is so small (Harvey-Morgan, 1996).
Recommendations

Technology is clearly one of the most promising areas for advancing adult literacy. The opportunities for technology seem well matched with the problems in the field: dispersed and diverse population of adult learners, limited and thinly distributed expertise in learning diagnosis, a need to connect learners and instructors interactively in an asynchronous manner that takes advantage of learners' needs for independence along with their unavailability for formal classroom instruction, and the general importance of "technological literacy" for employment opportunities. There is much that can be done in this area.

At the policy level, federal and state funding should be targeted specifically for technology purchase and accompanying staff development. Administrative data collection through electronic media should gradually replace manual methods, with all practitioners being provided electronic access. Government can also facilitate partnerships and provide incentives to help access and leverage additional funds from the private sector, particularly in software development.

Professional development is nowhere more important than in the introduction of innovative technologies into literacy work. Without ongoing staff development and without technology training built into the staff-development planning process, adult literacy programs will never utilize technology to its full potential. At the same time, additional research is needed to develop distance education models for adult literacy learning and instruction within the context of a "wired" society, where online communications and on-demand, interactive instructional courseware are available in the learner's home, workplace, and literacy classroom. Development in this sector will be a long-term venture, as the variety of needs and rapid changes in technology will likely produce considerable ferment. For example, almost totally unexplored for literacy work so far are the creative uses of low technologies like hand-held vocabulary devices and personal assistants, and higher technologies such as intelligent tutoring systems.

Conclusions

However one chooses to interpret recent survey findings such as the NALS and whatever size one selects for the population in need of further literacy training, America faces a serious literacy problem that is likely to have continuing consequences for this nation's economic capacity, social well-being, and ability to educate future generations. The pressure on America, and on individual Americans, to achieve a higher level of skills is present today and growing with each passing year.

In this discussion, we have reviewed findings from recent studies that point to useful ways to improve the effectiveness and efficiency of adult literacy programs in this country. We have noted that to be literate in America today is to possess higher levels of skills than in the past. Furthermore, the match between the contents of literacy instruction, the expertise of professional staff, and the diversity of learner backgrounds is a challenge of major proportions. We found that the variegated American literacy landscape must be better understood if we are to make progress on the national goal of producing a fully literate America. New methods for adapting instruction to individual skill profiles and motivations, for measurement and instruction in ESL, and for innovation in technology are not far away—indeed, some of these innovative methods are ready today. New approaches to professional training and development have been tested successfully in the field. Family and intergenerational literacy programs have stimulated practitioners and policymakers to rethink the dynamics of how literacy education can be delivered and linked to other social programs. Advanced technologies are beginning to be utilized. All of these areas, and more, are much closer to our grasp than many people know.

Yet policymakers are increasingly faced with difficult choices on how to spend "social dollars." They need to know how tax dollars can make a real difference. Research findings now show that the actual situation for adult literacy education is more problematic than is usually admitted in public. For example, one major study found that nearly half of all new adult learners who complete one hour of instruction drop out of their programs within 16 weeks (Development Associates, 1993, 1994). Other studies have found that perhaps the majority of adult literacy educators had had only minimal training in adult instruction and that many programs nationwide have relatively little idea as to whether their adult students have met "desired goals" or any other standard. Thus, while awareness of adult literacy as a social issue has undoubtedly increased since 1980 and enrollment in programs has increased as well, our review suggests that efforts to date to improve adult literacy have not brought the dramatic gains that have been hoped for by policymakers, the literacy community, or the public.

The preceding paragraph is a commonly heard critique of adult literacy work in America and could be used as evidence of why government should reduce investment in adult literacy. Such a conclusion would represent a major error in judgment. The findings outlined in this article suggest that America's literacy problems and needs are growing, not declining. Furthermore, although total state and federal investments in adult education have risen substantially in the last decade (Venezky & Wagner, 1996), they are still trivial with respect to investments in formal schooling and the growing needs in this area. The difficult situation and critical analysis of past literacy work is more due to the relative neglect of the adult education infrastructure, whereas massive resources have been poured into other sectors of America's national education system.

How can we make progress? The efforts mentioned here and others currently under way suggest that more funding would help. But more funding is not the only answer. Resources need to be better targeted to improving the quality of education offered along four key dimensions: effectiveness, efficiency, professionalization, and innovation. Briefly put, effectiveness means far better customer service, programs tailored to address diverse needs, and user-friendly courseware—what we have termed a consumer-oriented approach to adult learning. Efficiency means improved and better funded organization of services, not programs that live hand-to-mouth on donations and intermittent government resources. Professionalization means that adult literacy workers need to be part of, and be accepted by, the professional education community and that colleges and universities need to think more seriously about training and offerings in adult literacy. Innovation means that the stodgy old field of adult literacy education needs to open
up to the same marketplace of new ideas that is buffeting the formal school system, especially concerning the use of new technologies. This short list is, of course, only the beginning of the path toward real progress.

We believe that the prognosis for making major gains toward a fully literate America is a good one. The next decade ought to provide evidence of this success, assuming the resources are available and that the focus is maintained on self-renewal. Our experience during the 1990s has demonstrated that the professional staff in adult literacy—the key to any of the innovations mentioned in this report—are ready, even eager, to rise to the challenges. But this, too, is not enough. The field as a whole, along with policymakers and legislators, must pull together in the same direction for the next generation of adult literacy work to be an improvement over the one we have just left behind.

Notes

This article is based on a research policy report of the National Center on Adult Literacy (NCAL, 1995) and has been updated for this publication. It is not intended as a complete and comprehensive review of the literature, although many footnotes are included where specific claims are made. Rather, the issues and findings are targeted on key issues to advance the field, and many findings and recommendations are influenced by the combined efforts of the R&D specialists working under the mandate of the National Center on Adult Literacy. The white paper, a collective effort, was originally drafted by Daniel A. Wagner and Richard L. Venezky, with input from Maria Carlo, Vivian L. Gadsden, Iddo Gol, Lynda Ginsburg, Joyce Harvey-Morgan, Christopher Hopey, Susan Lytle, Larry Mikulecky, Paul Lloyd, Scott G. Paris, Stephen Reder, R. Karl Rathemeyer, and Regie Stites. This article was supported in part by funding provided by the Education Research and Development Center Program (Grant No. R117Q00003), as administered by the Office of Educational Research and Improvement, U.S. Department of Education, with supplemental funding from the Office of Vocational and Adult Education. The opinions expressed in this article do not necessarily reflect the views or policies of the U.S. Department of Education or any other agency. The authors wish to thank ER's several reviewers for their helpful comments on earlier versions of this article.

The analysis and interpretation of the NALS data are still ongoing, and some specialists view Level 2 as adequate for maintenance in many jobs. These data also obscure the wide population differences in low-literate Americans, which vary significantly by race, language, and age, just to mention a few key factors.

We believe that only a small portion of the population (under %) could perform almost none of the literacy tests, many specialists prefer to say that America’s problem is not “illiteracy” but rather “low literacy” or insufficient literacy skills. In this report, then, we will generally use “low literate” or “low literacy,” rather than “illiterate” or “illiteracy.”

For analyses of crime and literacy, see Haigler, Harlow, O’Connor, and Campbell (1994). On literacy and welfare, see Cohen, Golonka, Ooms, Owen, and Maynard (1994).

By literacy, we mean mainly reading, writing, and mathematics ability, plus the understanding of how and when these abilities should be deployed for personal and family needs, civic responsibilities, and work. Whether one prefers to portray literacy as socially defined or as skill defined is not essential to this article. Nevertheless, because our focus is on policy, we are more concerned with those aspects of literacy that are justifiably national concerns than we are with those that lie outside of this purview.

These five levels, while useful for statistical and relational purposes, are nonetheless arbitrary and have not as yet been related to specific labor, home, or citizenship needs.

For an exploratory study, see Reder (1994). We still know far too little about the direct and long-term consequences of adult literacy programs in America, as there are no long-term longitudinal data as yet gathered on a national sample. The data in surveys like the NALS are only able to produce correlational analyses.

However, the data on the GED and its consequences is still being debated, with some researchers finding little to no impact (Cameron & Heckman, 1993).

However, even if learners were provided with sufficient information to set realistic goals, there is a legitimate question about whether publicly funded literacy programs could be justified by the many and personal goals of the participants as opposed to goals derived from social, economic, or civic needs of the state or nation.

Attention needs to be given in instruction to three separate domains for any subject: the knowledge base required by the subject, the strategies required for understanding (or producing) the texts typical in the domain, and fluency in the basic skills that are required for more complex tasks; see Venezky and Sabatini (1996). For a review of the military experience on functional context learning, see Slicht (1994).

For an overview on adult numeracy issues and importance, see Gal (1993). The NALS included a quantitative component, but recent analyses suggest that there was so much overlap between three NALS scales that little can be said specifically about numeracy from that study. For this re-analysis, see Reder (in press).

This study also showed that accurate placement could be accomplished with the use of short placement procedures.

A hierarchical testing model, whereby the amount of testing done is a function of the complexity of skill, knowledge, and affective problems in the individual, may lead to affordable and effective diagnostic systems. With the Internet, for example, expertise in test evaluation could be provided from a small number of sites within states or even regions similar to certain vocational practices where cardiovascular data are transmitted to remote sites for analysis. On diagnostics, see Shafrir (1996); Venezky, Sabatini, Brooks, and Carino (1995); and Venezky et al. (1997). On the issue of Internet-based adult skill assessment, NCAL is involved in a federally funded project to provide such resources to individuals seeking to pass the GED test (see technology discussion below).

An alternative that should be explored is to emphasize basic skills for low-performing adults and functional abilities for higher performers.

The conundrum of alternative cost-benefit investments in human development is beyond the scope of this article. For one version of this debate, on the relative efficiency of investments in primary schooling and adult education in developing countries, see Wagner (1995).

Data show that the percentage of persons 5 years and older who speak a language other than English has grown about 40% in the last decade, from 9% in 1979 to 22% in 1989 (National Center on Educational Statistics, 1993b).

It should be noted that there is substantially more evidence on how “well-educated” adults learn to read in a second language; this is true of foreign-language acquisition, but these findings are on populations quite dissimilar to those individuals in ESL adult literacy programs.


For a recent international discussion on parental literacy, see Wagner (1995).

Data from the 1994 study also showed mixed results on actual adult literacy learning between program and control groups, although amount of learning was related to number of hours of instruction. Costs were found to vary “tremendously” across projects, ranging from about $1,600 per family to $6,300 per family over one program year. A more recent set of case studies, undertaken in the state of Montana, also showed that variability was considerable with respect to how effective programs defined themselves as family literacy programs; see DeBruin-Parecki, Paris, and Seidenberg, 1997.

Although volunteers can supplement the work of professional teachers, the empirical research in this area gives little encouragement for the assumption that expanded-opener teaching or tutoring effort can make a major impact on the literacy needs of adult learners.

A recent review of tutoring research (Jain & Venezky, 1996) suggests that tutoring can be effective in various learning contexts and is especially sensitive to the interaction between tutor and the student in volunteer literacy programs, according to Tenenbaum and String (1992), tutor-student matches are usually determined by geographical proximity, rather than by other factors (ethnicity, age, gender) that seem to be
most important for effective learning. Furthermore, the substantial use of volunteers makes it difficult for programs to engage in sustainable staff training and development. Because a beginning volunteer tutor typically remains active for less than one year, investments in the improvement of teaching are not seen to be cost-effective. All of the above is not to say that volunteerism in adult literacy should be discouraged, as volunteer organizations play an important part in America’s overall literacy efforts. The point here is simply that major improvements for the next generation of literacy work are unlikely to be achieved through volunteer services, as attractive as the idea of volunteerism may be in America.

This would be analogous to the charter school concept, which provides opportunities for smaller clusters of individuals and actors to work on common problems together, with fewer administrative layers.

While empirical evidence is sketchy at a national level, many programs report that there is a serious gap in the number of minority adult literacy practitioners relative to the number of minority adult learners. Increasing professionalization of the teaching staff might help recruit more minority individuals into this field.

Harvey-Morgan et al. (1996). Of course, there was also use for instruction, networking, and so forth, but these uses were present only in a modest fraction of the national sample. Notably lacking was significant student usage of microcomputers. Since these data were originally collected, the use of microcomputers and telecommunications has changed dramatically. NCAL conducted a subsequent technology survey (NCAL Report TR96-08) that found that adult educators and adult learners are making much more use now of the Internet; what is less clear as yet is whether this “use” will translate into gains in the quality of education delivered.

One national effort to overcome this gap is NCAL’s technology training model, the Adult Literacy Technology Innovation Network (ALTIN) (Harvey-Morgan, 1995).

Ironically, adult education departments in numerous states are, at present, still prohibited from allowing their funds to be used for technology equipment purchases. This, however, seems likely to change in the near future. Educational discounts for Internet access (the “E-rate”) should also be made available to literacy programs.

Two new initiatives should be mentioned in this regard. One is Crossroads Café, a video-based instructional package designed, with federal and state support, for ESL adult learners, which was released in 1996. A second is a project begun in 1997, called Literacy Link, which is designed to provide Internet-based instructional services to adult learners and programs; it is being designed by a consortium of NCAL, the Public Broadcasting Service (PBS), and Kentucky Educational Television, with funding from the U.S. Department of Education.

As in all areas of education, there is an ever-present tension between the public presentation of successes and failures of the system. Yet one of the noticeable features of the field of adult literacy, relative to K-12 education, is its special dependence on (positive) public awareness as a source of adult learners, volunteer teachers, and gifts from the private sector. This dependency, in our view, can only be overcome by a greater focus on the professionalization of the literacy field, with concomitant resources that will be sustainable in the long run. Short-term awareness campaigns and the like are unlikely to achieve these desired long-term consequences, while they sap energy and resources in the short term.

According to this survey, part-time tutors outnumber full-time teachers by about four to one (see Development Associates, 1993). Meeting desired goals has been one common way of measuring “success” of a student’s time in adult literacy programs; this measure has been and is still debated in the field; see Beder (1991); Development Associates (1994); and Lytle, Belzer, and Reumann (1992a).

It is also a critique heard of adult literacy and adult education in other countries as well. (See Wagner [1992]; Wagner, Veneky, & Street [1999].)

References


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Response to "Adult literacy: The Next Generation"

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Recent surveys in the U.S., Britain, Australia, and other OECD nations continue to report unacceptably high levels of adult illiteracy (Australian Bureau of Statistics, 1997a, 1997b). In the present context of unprecedented growth in symbolic sophistication associated with the current technological revolution (Castells 1996, 1997), claims of widespread adult illiteracy in "advanced" societies present an anachronism begging careful and responsible analysis, explanation, and redress. Efforts to bring clarity and insight to the adult illiteracy conundrum should be welcomed and engaged in academically rigorous discussion. We respond accordingly to "Adult Literacy: The New Generation."

Our stance is that of a critical colleague. We share what we see as Wagner and Venezky's literacy ideal: a universally literate citizenry that employs literacy effectively in the individual and collective pursuit of social, cultural, and economic purposes that benefit all on an equitable basis. Our response interrogates their article against this goal, from the standpoint of:

Academic critics approaching the article on academic and scholarly grounds;
Policy analysts evaluating the case for continued and increased support for adult literacy initiatives;
Literacy researchers and scholars wanting to understand literacy in ways that are consistent with ethical and social ideals of equity, democratic participation, fairness and dignity, and so on.

Some Key Features of "Adult Literacy: The Next Generation"

Wagner and Venezky's position is premised on the findings of the NALS, which are used to sustain the view that the literacy performances of fully half of the U.S. adult population are below what adults need to be economically productive and competitive as workers and to function competently within key domains of everyday civic, social, and domestic life.

While they take a generous view of the domains within which adults employ literacy on a daily basis, Wagner and Venezky nonetheless follow the strong trend evident since the 1970s toward privileging the importance of literacy for national and personal economic well-being, productivity, and competitiveness over other imperatives. We respond within the same frame although, like Wagner and Venezky, we do not want to imply that this is necessarily the most pressing or valid motive for supporting adult literacy work.

As a means for managing their argument and framing our response, we have distilled from their position five important substantive implications and findings:

- The adult literacy sector needs continued and increased funding—seemingly, significantly increased funding. Cognizant of current tendencies toward fiscal restraint on social programs, Wagner and Venezky claim that adult literacy education "appears to be a promising and well-targeted investment" in terms of economic competitiveness and equity goals of social programs.
- Adult literacy services should continue to be provided by professional adult literacy educators employing a literacy classroom instruction approach, albeit one with a stronger emphasis on "functional context learning" than hitherto, and with the benefits of greatly increased and more systematic professional development, professional status, and job or career permanency.
- There needs to be considerable further research and development activity aimed at providing an effective information/knowledge base relevant to pursuing improved literacy performance outcomes, appropriate quality standards and instruments of assessment and evaluation, and enhanced pedagogical approaches responsive to "the variegated American literacy landscape."
- Literacy consists of abilities containing skill and content components in reading, writing, and math that relate to contexts of human activity (notably, work). Whereas much previous adult literacy provision has been based on a model of generic skills that were pre-COLIN LANKSHEAR

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sumed to be transferable to situations of human practice (but by and large were not), Wagner and Venezky link literacy abilities to “functional contexts,” framing literacy learning as a form of subject study and instruction. They argue that besides a focus on fluent acquisition of basic skills involved in more complex tasks, literacy learning activities should contain elements of a knowledge base required by particular subject areas (e.g., work, consumer practice, health and recreation, etc.) and a focus on strategies for understanding and producing text types associated with different spheres of activity.

- There is seemingly little evidence that the adult literacy sector has come to terms with current requirements to demonstrate accountability and report program effectiveness in terms of the achievement and maintenance of valid literacy outcomes by learners—at least by comparison with existing evidence of the sector’s concern to maintain and expand its funding base. Wagner and Venezky are able to provide extensive research-based recommendations for improving adult literacy service provision contingent on additional funding. By comparison, however, there seems to be very little existing knowledge about what this will actually involve in detail so far as demonstrating and assuring accountability for state and federal funding is concerned.

In considering these implications and findings, it is important to remember that the present context is one of record levels of literacy funding and provider activity.

Four Critical Themes

Our response is made under four headings: “Some Academic Considerations,” “Conceptions of Literacy,” “The Economic/Workforce Focus,” and “The Preferred or Assumed Approach to Literacy Service Provision.” We focus on aspects we believe are crucial for making progress in adult literacy under existing and foreseeable conditions.

Some Academic Considerations

We have strong reservations about the selected and truncated use of the NALS findings as a plank for the position developed by Wagner and Venezky. Their case for the future of adult literacy provision is premised on the findings of this survey, but once introduced, the NALS is not referred to again. The findings and the survey instrument are accepted without question. As the preeminent database purporting to map adult literacy on a national scale, it might reasonably be expected to be taken up in the manner of other research addressed in the article, subjected to analysis, and, indeed, used as a basis for developing specific recommendations.

This omission unwittingly contributes to a problem that Wagner and Venezky themselves identify and address: namely, the fact that the adult literacy field lacks specificity, clear direction, and a coherent vision of desirable skills and knowledge across a range of contexts. If the survey instrument is sufficiently valid to serve as the most conspicuous premise for ongoing programs, it should be trawled for whatever clues it can provide with respect to framing appropriate performance outcomes, quality standards for programs, and so on—given that these are in short supply.

From a research and scholarship perspective, there are good reasons for subjecting the instrumentation and findings of any such survey to rigorous scrutiny. These come partly from the quantitative paradigm of survey research itself, which insists on demonstrating the validity of instrumentation relative to the uses to which findings will be put. The National Center for Education Statistics report of the NALS (Kirsch, Jungeblut, Jenkins, & Kolstad, 1993) provides neither information as to how the items were constructed and selected nor argument germane to the validity of the survey items in terms of economic competitiveness and productivity. Indeed, there is no compelling evidence provided that the survey tasks represent/ comprise the sorts of literacy events and processes in which people actually engage in their everyday lives in order to achieve their purposes any more than many of the tasks children are called on to do in school are authentic to life beyond the classroom. To simply accept the survey findings and premise the rationale for elaborate adult literacy service provision on them involves an enormous and unwarranted assumption.

Recent research evidence outside the scope considered by Wagner and Venezky is informative here. A parallel survey to the NALS conducted in Australia in 1996 (ABS, 1997a, 1997b) provides strong grounds for the concerns we raise. The Australian study reports a dimension not reported—and seemingly absent from the NALS. In addition to the assessment of literacy and numeracy skills components, the Australian survey contained a “qualitative” component in which respondents were invited to rate their reading, writing, and basic mathematical skills as either excellent, good, moderate or poor. Information was also collected about the frequency with which respondents undertook selected literacy and numeracy activities in daily life and at work, and about their use of different languages (ABS, 1997a, p. viii).

Some interesting findings emerged. While 92% of those who rated their reading skills as poor relative to “the needs of daily life” indeed scored at the lowest level of the prose scale assessment, a very significant 28% of those who self-rated their reading skills as excellent were subsequently assessed at the two lowest levels of performance. Moreover, only 79% of those who rated their mathematical skills as poor scored at the lowest level. In other words, there are significant differences between the “subjective” and “objective” assessments. The ABS report comments as follows on the reading aspect:

It may seem incongruous that some people who were objectively assessed as having relatively poor literacy skills rated their skills as excellent or good. One possible explanation for this is that people with lower skill levels (as measured by the objective assessment) who had little need to use advanced skills in daily life may consider that their skills are good enough to meet the demands placed on them, and, accordingly, rate their skills for the needs of daily life as good, or even excellent. (ABS, 1997a, p. 9)

Indeed! This is sufficient to raise reasonable doubt about the relationship between survey items and what people actually do in their daily lives and the ways in which they set about negotiating information, meaning, and other communication demands. Moreover, relatively small proportions of those assessed at the lowest level in the Australian study used (14%) or wrote (10%) reports, articles, magazines, journals, invoices, bills, spreadsheets, and the like on anything
like a daily basis. This is not to say that they should not be able to do these things well or that they will not need to do them routinely in the future. It does, however, imply that large numbers of people actually experience themselves as functioning competently under present real-life conditions with what they can already do and that this is being adjudged poor and, by extension, inadequate. Given the similarity between the NALS and ABS assessment instruments and the apparent absence of a parallel self-rating component in the U.S. study, it must be an open question as to how far the survey items in both cases represent “the needs of daily life.” For all the differences between the two societies, they are not so different as to rule out the likelihood of similar discrepancies between “subjective assessments” and “objective judgments” emerging among U.S. adults as occurred in Australia.

Elsewhere, Wagner and Venezky’s selections from available research lead to truncated treatment of important issues and to overlooking insights from other work in the field that should be considered in planning for the future. Their discussion of motivation provides a case in point. They raise the important issue of incentives that are “directly and readily perceived” by learners and providers alike, but proceed to treat it from a very narrow perspective. In doing so, they overlook crucial aspects of learner motivation. One consequence is to risk blaming victims.

Wagner and Venezky consider very generally the mechanism of tax structure incentives for the private sector to make literacy provision more attractive. However, apart from a vague notion of “increased compensation” for worker participants, their only concrete recommendation with respect to learner incentives involves a veiled form of coercion. They suggest making receipt of welfare benefits by low-literate people contingent to a greater or lesser degree on attending literacy programs. This is deeply problematic in our view.

In part, it undermines their own argument about the need for the adult literacy sector to address rigorously the quality and effectiveness of programs. Generating a “compulsory clientele,” however, is likely to work in the opposite direction, as has long been argued in relation to schools and other sites of enforced consumption, including bureaucratic welfare programs.

More important, it sidetracks the argument from addressing the fact that many adults who acknowledge personal literacy needs participate readily and enthusiastically in learning activities where there is genuinely something in it for them by doing so (see, e.g., Castleton, 1996; Hull, 1993; Hull, Jury, Ziv, & Katz, 1996; Kozol, 1985; O’Connor 1994, 1997). This applies particularly to work-related literacy provision. In workplace literacy programs where participants are directly involved in the planning and development phases (Castleton, 1996; Hull et al., 1996; O’Connor, 1994, 1997), workers repeatedly state preferences for programs that address their needs across the spectrum of their social roles and identities. Yet, as Hull et al. note (1996, p. 202), “little attention is usually paid by those in charge of workplace innovation to who workers are—their backgrounds, their biases, their goals in their current job, their plans for the future.” If this kind of evidence from research and reported experience is not taken seriously, providers may be encouraged to believe the unattractiveness and ineffectiveness of their programs are essentially a function of poor motivation (see also O’Connor, 1994, 1997).

Conceptions of Literacy

Drawing on the work of Thomas Sticht and others, Wagner and Venezky aim to move beyond earlier decontextualized skill-based views of literacy by building the notion of functional context learning into their recommendations for future literacy program development. According to their approach, elements of content and procedures that are organic to typical contexts in which people engage in literacy within real-life situations should be captured and imported into literacy learning activities within instructional settings—as opposed to treating literacy as abstracted, decontextualized, generic sets of skills to be transferred by those becoming literate into living practices.

While we see this as potentially a step in the right direction, we nonetheless believe it is inadequate and problematic. It maintains and reinforces the view of literacy as a commodity—albeit a commodity with some packaged “importations” of contextual aspects derived from real-life settings. Although this may, in some respects, come closer to making literacy instruction more lifelike, it still divorces literacy learning from situated practice per se and, precisely to this extent, continues to reify literacy (as commodity). In fact, literacy is practice. To be sure, the still-commodified literacy advocated by Wagner and Venezky is a practice, but it is akin to the practice of what Gee, Hull, and Lankshear (1996) call a “school Discourse”—not the practice(s) people engage within routines of daily life. To this extent, Wagner and Venezky’s revamped conception of literacy denies what literacies are and precludes innumerable practices of literacy from what come to count officially as literacy (or, for that matter, numeracy).

Recent work from South Africa is illuminating here. One brief example must suffice. Catherine Kell(1996) describes the work of an ANC activist, Winnie Tsotso. Tsotso is a local ANC branch organizer, a long-standing member of the squatters’ Civic Association, and serves on the local health, preschool, and Catholic Welfare and Development committees. She also runs a soup kitchen for pensioners-purchasing, preparing, and serving the food. She is a qualified first-aid worker and more besides. In a “technical” sense, she is illiterate and sees herself as such, yet by means of social procedures she has developed with others she easily manages the print requirements of her various roles.

Within the welfare and political domains, her role is that of a leader and an authority. Despite her inability to decipher much print, she plays a very important and highly valued role as a literacy mediator. In a process of reciprocity, she draws on her well-developed networks of support—and also on the extensive knowledge she has acquired informally through apprenticeship and guided participation (Rogoff, 1988) in liberation politics and welfare bureaucracy. (Kell, 1996, p. 242)

In these respects and domains, although not in others, she is literate in the sense of handling the language requirements of multiple Discourses (Gee, 1996). Literacy is not an end in itself, and effective literacy is, by definition, a matter of handling textual requirements within social practices in situ. Interestingly, Kell contrasts Tsotso’s struggling
efforts to deal with literacy learning in a beginners' class with her fluent competence in diverse text-mediated social practices.

Our point is not that such literacies are adequate for the demands of modern complex societies and leading-edge workplaces. Rather, it is that they are nonetheless literacies and that all literacies are like this: embedded in concrete practices; mastery of the relevant language uses within a given social practice constitutes literacy for that practice. This entails several things directly relevant to Wagner and Venezky's article, including the following considerations:

- Workplace literacies are social practices, not individual possessions or capacities. A workforce full of people who have been "well instructed" through literacy programs is no guarantee of efficient productivity or enhanced competitiveness. Neither does the fact that some workers are short on "official literacy competencies" imply on its own anything much about the quality and effectiveness of workplace practices;
- Because much that is crucial to the operating effectiveness of literacies is related to the contingencies of situated practice, it follows that literacies should be acquired as far as possible within the settings in which they are embedded. This will be elaborated in our discussion of the assumed approach to adult literacy service provision;
- Ethnographic research of literacy practices in workplace, civic, domestic, and social settings comprises a highly significant source of information relevant to future adult literacy development work (see, e.g., Gowen, 1994, Hull et al., 1996; Prinsloo & Breier, 1996). The fact that this research is not addressed in Wagner and Venezky's review constitutes a major omission that begs redress.

We note briefly two further difficulties with Wagner and Venezky's conception of literacy. The first is that they frame literacy in terms solely of conventional print technology (typography)—the section on technology notwithstanding. This is fundamentally inadequate to the literacy demands of the present, let alone the future. The fact that the NALS and similar surveys encode the same inadequacy further highlights the dangers of predating future literacy directions on their results.

The importance of this point is well captured by Manuel Castells, who argues that the character of communication is changed fundamentally by the increasing integration "of text, images, and sounds in the same system, interacting from multiple points, in chosen time (real or delayed) along a global network, in conditions of open and affordable access" (Castells, 1996, p. 328). Moreover, because cultures—"historically produced systems of beliefs and codes"—are mediated and enacted through communication, "they become fundamentally transformed, and will be more so over time, by the new technological system" (p. 328).

At a time when government policies are prioritizing development and access to "the Information Superhighway," the implication of Castells's argument is clear. In societies like the U.S., learners whose literacy education is constrained within the limits of "the typographic" will be denied access to understanding and participating in developing and transforming cultures of the information society on terms equal to those enjoyed by learners whose literacy education is not thus constrained.

Finally, we maintain that literacy that is equal to the demands of information societies in a global age must be seen as having three dimensions: the "operational," the "cultural," and the "critical" (Green, 1988, Lankshear, Bigum et al., 1997).

The operational dimension involves being able to read and write within a range of contexts in an adequate and appropriate manner employing print and electronic media. The cultural dimension involves understanding texts and information in relation to the contexts-real-life practices—of which they are produced, received, and used. Without the cultural dimension, language users are unable to understand what makes particular ways of reading and writing appropriate or inappropriate, adequate or inadequate in a given situation or setting. The critical dimension involves being able to innovate, transform, improve, and add value to social practices and the literacies associated with them. It marks the difference between merely being socialized into sets of skills, values, beliefs, and procedures and being able to make judgments about them from a perspective that identifies them for what they are (and are not) and recognizes alternative possibilities.

Continuous innovation and improvement, critical evaluation, and creative constructive transformation are absolutely integral to advances in economic, civic, and social practices (see, e.g., Cappelli et al., 1997; Freeman, 1994; Reich, 1992; Stewart, 1997). They presuppose considerably more, however, than just attending to "functional context learning" as a corrective to existing shortcomings in the cultural dimension of adult literacy provision. Here again, the research base employed by Wagner and Venezky is simply too narrow or selective for addressing the needs of "the next generation."

The Economic/Workforce Focus

Given the prominence of the economic imperative in their argument, Wagner and Venezky pay surprisingly little attention to the massive research corpus concerned with economic trends, labor markets, the changing nature of work, and actual workplace practices. This is a serious omission because policymakers might reasonably expect the promise of future improvements in adult literacy education to be informed by a clear sense of what people will need to know in order to be employable, productive, and competitive. In our Australasian experience, the adult literacy provider sector remains remarkably underinformed about where work is headed and, indeed, about the ways in which workers actually employ literacy within workplace communications and work processes. There is no indication in Wagner and Venezky's article that the situation is any different in the U.S.

Two examples from recent literature indicate how important it is that adult literacy work be informed by areas of research omitted in Wagner and Venezky's review.

First, it is informative to compare two statements pertaining to literacy demands of modern workplaces advanced within three years of each other. In his landmark article on workplace training, William Wiggenhorn (1990) stated the need for sound basic literacy and numeracy competencies and problem-solving skills for frontline Motorola employees, using diagnosis of equipment failure as a typical example. Whereas 10 years earlier, if a machine
went down, workers had merely to raise their hands and a repair person would come in to fix it; under new conditions of work and competition, workers need to understand their equipment—e.g., with the assistance of manuals, diagrams, instructions, and the like—and initiate trouble-shooting themselves (Wiggenhorn, 1990, pp. 71-72). If Motorola's frontline workers needed an expert, they had to be able to describe the malfunction in detail—that is, “to be able to analyze problems and then communicate them” (p. 72).

Yet, by 1993, Kevin Kelly was documenting business equipment (e.g., Pitney Bowes's fax machines, Hewlett-Packard's minicomputers, General Electric's body scanners) that could be diagnosed and repaired from a distance: “By plugging a phone line into a machine, operators at the factory can peek inside its guts to see if it is working properly and often fix it if not” (Kelly, 1993, p. 241). In some cases, machines could be fixed by uploading software directly into them. Kelly notes that in time, “all machines will be wired into a net so that they warn repairmen when they are flaking out, and so that they can receive updated intelligence and thus improve while on the job” (Kelly, 1993, p. 241).

The general principle and trend described by Kelly has massive implications for “the next generation” of adult literacy work, but Wagner and Venezky provide no evidence that leaders in the sector are looking to the future. At best, the sector continues to wrestle with scenarios like that of Motorola’s frontline workers, who were asked to conceive of themselves as not just employees involved in physically assembling boards, but as thinkers, people who monitored their own load-handling rates and who reflected on and analyzed problems (p. 119).

Against this background, Hull describes a critical incident involving manufacturing process instructions (MPIs) produced by engineers. The MPIs often contained errors that affected productivity. Yet, for all their “self-directedness,” the workers were obliged to act on the MPIs and prohibited from correcting them in any way. In the incident described, the work team scrutinized the document and the team leader found a mistake in the MPIs. The author had mistakenly written a “1” where an “11” should have been in the column listing the number of components. This had major implications for productivity calculations: It takes 11 times longer to load 11 components than to load 1. The “standard time” allotted for assembling that board was way out of line as would be the team’s productivity if team members assembled the board as needed for it to work. This, however, is exactly what the team being observed did. They left the MPIs intact and paid the consequences in terms of lost earnings for doing the job as they knew it had to be done and left the matter there, seeing no scope for redress or for changing the rules. Other workers responded differently—refusing to make changes they knew were needed when an MPI was incorrect, even when engineers gave verbal approval to do so. This approach delivered faulty product produced to specification!

This critical incident exemplifies where issues of productivity and competitiveness have nothing to do with workers’ literacy and numeracy and everything to do with relations of power, processes of regulation, and the “literate inaccuracies” of busy engineers. Other researchers report many similar examples. Sherry Gowen (1994, p. 125), for example, marshals impressive ethnographic evidence for her claim that “American businesses are in trouble for a wide variety of reasons that have nothing to do with worker illiteracy” (see also Breier & Sait, 1996).

Research by economists analyzing work within postindustrial economies indicates serious challenges facing curriculum development and pursuit of equity in the area of workforce literacy. Peter Drucker (1992) describes a growing polarization within postindustrial workforces between “knowledge workers” and “service workers.” The former undertake what is seen as high value-adding work that, as a consequence, is well paid. They belong to what Reich (1992, p. 177) calls “the rising one-fifth” in our economies. Service workers, whose work is not regarded as value-adding, are poorly paid and inhabit Reich’s “falling fourths.” Drucker (1992, p. 8) notes that even in “the most highly advanced” countries, service workers will “constitute the majority.” Furthermore, much service work will be done by the “peripheral workforce” of companies whose pursuit of maximum flexibility and profit “obliges” them to employ a lean “core workforce.” This “core” is augmented by “peripheral” workers who are “dispensable” and work part time or on a “temporary” basis with individual contracts and minimal employment rights and benefits (O’Connor, 1993, pp. 13-14). Whatever the quality of adult literacy programs, they will inevitably be serving people who are predominantly bound for positions outside the “knowledge” workforce. This raises serious issues of equity. Furthermore, given that vulnerable “peripheral” workers may be required to move across diverse “functional contexts,” questions arise as to what range of functional context learning given individuals might need to master to remain employable across a period of time and how this will be determined.
Such considerations are not addressed in Wagner and Venezky’s review of research literature or, indeed, in their account of “the state of the art.” Until they are addressed, adult literacy provision will remain hostage to under-informed and radically incomplete understandings of the world of work, and programs will risk being reduced to the status of passports to inequitable economic opportunities. At the very least, adult educators are entitled to a literacy education that enhances prospects for critically understanding the economic (and social) present and future. No mention, however, is made of this in “Adult Literacy: The Next Generation.”

The Preferred/Assumed Model of Adult Literacy Service Provision

We have strong reservations about the approach to adult literacy provision advocated by Wagner and Venezky. They basically propose “more of the same, only better”—that is, to maintain the model of classroom-based literacy instruction, only under the direction of better-prepared professional educators. For this to be a convincing proposition, it would have to meet at least the following considerations:

- A strong tide of current research grounded in a socio-cultural approach to social practice proposes that learning occurs effectively within contexts of authentic practice in the presence of expert performers. Possibly the best-known variant of this view is the cultural apprenticeship model associated with the work of researchers like Barbara Rogoff, Jean Lave, Etienne Wenger, Shirley Heath and Milbrey McLaughlin, and James Wertsch. From this perspective, practices are mastered in situ, in role, and in the presence of expertise via such processes as “apprenticeship,” “guided participation,” and “participatory appropriation” (Heath & McLaughlin, 1994; Rogoff, 1988, 1995). Because literacy is best construed as literacies, and all literacies are embedded in Discourses (Gee, 1996), it follows that the necessary expertise will be found among proficient members of the Discourses in question (e.g., particular work Discourses, civic Discourses, etc.) as distinct from professional all-purpose literacy educators. This, of course, is consistent with Wagner and Venezky’s wish for more and better professional development, but it implies professionally developing purposefully recruited “Discourse experts” in facets of literacy pedagogy and theory instead of professionally developing a generic “caste” of literacy professionals.

- The same argument, in our view, calls for progressively rejecting the model of the literacy instruction classroom in favor of embedded in situ learning, where literacies are mastered as integral components of organic social practices.

- There now exists an impressive body of evidence, some of it concerned with classroom receptions of technological innovation (cf. Cuban, 1986; Hodas, 1996), as well as from literacy research and education reform (e.g., Baker & Freebody; 1989; Knobel; 1999), documenting the tendency for classroom practitioners to accommodate innovations and professional knowledge to their standard modus operandi—that is, to incorporate it into “doing school.” Classroom instruction Dis-

We expect that economically rational policymakers and funders will require cogent responses to these and similar considerations before they seriously consider investing significantly more resources on adult literacy provision.

Conclusions

- The adult literacy sector needs to reorient its research focus toward identifying evidence of significant and valid outcomes. Current recourse to research tends to generate “more questions” and “promising directions,” rather than showing a focused concern for demonstrating results—which is what policymakers and funders demand.

- It simply cannot be assumed that the “old” model of service provision by adult literacy professionals working in classrooms provides an adequate model for future development. Sociocultural research generally, and investigations of literacy in situ more specifically, strongly support the proposition that we should be integrating literacy work into site-based activity, recruiting and training literacy educators from among people “on the job” and directing more professional development about literacy toward them.

- Neither can it be assumed on the basis of surveys like the NALS and ABS studies that workers are illiterate in
ways that most matter for productivity and competitiveness under current and foreseeable conditions, at least not without close and systematic evaluation of assessment instruments relative to what people actually do and the ways in which they do it. Any further research designed to point the way ahead should emphasize much more than in the past close empirical examination of how people actually engage literacy within economic, civic, cultural, and other social practices, with a view to identifying authentic needs, appropriate pedagogical procedures for meeting these, and incentives that truly motivate.

- A more critical stance needs to be adopted within the sector toward easy assumptions that “poor literacy” is a more significant factor in generating issues of economic productivity and social effectiveness than, for example, counterproductive workplace procedures, institutional processes that are abstruse or otherwise user-unfriendly, structured inequity and disadvantage, and other systemic impediments to full and enthusiastic participation in the economic, civic, and cultural life of the society. This does not entail slackening our efforts on behalf of universal effective literacy, but rather, it implies that approaches to literacy work should be undertaken within a wider and more integrated frame of reference than prevails within the current policy and reform context. This frame must include revitalized concern for a democratic ideal that practices what it preaches.

Clearly, we remain well short of such an ideal at present, and the gap between democratic rhetorics of human dignity, inclusiveness, social and economic justice, and access to meaningful opportunities and empirical lived realities is widening by the day. In this context, a literacy education that educates has an important role to play. Building and pursuing this role will involve, not least, paying due attention to the operational, cultural, and critical dimensions of social practices—particularly, literacy.

### References


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The response provided by Lankshear and O’Connor (hereafter L&O) raises a number of important issues to the field of adult literacy. Given space limitations, we will focus only on a few of the issues that are most relevant to the topics raised in our own article (as there are several themes in their response that are only tangentially related to our article).

On some issues where L&O seem to feel that their view is in contrast to ours, we feel there is, in reality, a substantial level of agreement. This occurs particularly in the domains concerning cultural and individual contexts for learning (which they term variously as “situated learning,” “in situ learning,” “ethnographic perspectives,” and so on). Although L&O take considerable pains to point to the importance of these concepts and cultural situatedness in general—while suggesting that we ignore these issues, we can only ask the readers to judge for themselves. Our concluding paragraphs (among other places) emphasize precisely the importance of understanding diversity across learners, as well as the centrality of adapting instruction to diverse profiles of learners and their motivations. In addition, L&O state that we ignore concepts like “literacies” and “literacy mediators” in sociocultural contexts and that we ignore the general problems of changing definitions in literacy. It is true that, in this article, we did not take space to deal specifically with these concepts because they were not central to our arguments. But we feel compelled to point out that each of us has written extensively on these same matters, well before current popularity—e.g., Wagner (Wagner & Spratt, 1984) along with Street (1984) on literacies and mediators and Venezky (Venezky, Wagner, & Ciliberti, 1990) on definitions across history.

We point out these latter examples for two reasons. First, they illustrate a tendency in the literacy field to utilize a selective part of the knowledge base to make one’s arguments, leading to (in our opinion) a history of conceptual confusion that has often plagued literacy work (for an in-depth discussion, see Wagner, in press). More important, this kind of conceptual debate, while certainly legitimate among researchers and scholars, is what we were trying to get beyond in our article by trying to focus on well-grounded research findings, each with a set of practical policy recommendations. Thus, our purpose was to explore real-world possibilities rather than, as L&O have largely done, to focus on what is missing in the article itself. What they have not done, in our opinion, is to seriously challenge the research basis of our recommendations or the recommendations themselves. Nonetheless, as stated, we do not feel that there is a major gap between the conceptual points they make in this area and those that we maintain.

This said, we feel compelled to point out several erroneous statements in the L&O commentary. Nowhere do we claim that there is “widespread illiteracy in advance countries” or that the well-known NALS made such a claim either. Indeed, we (along with the NALS report itself) claim that “illiteracy” as such is not a major problem in America, but that low literacy levels among a large numbers of adults is a problem. Furthermore, even though L&O claim that the NALS is the “premise” of our argument (which it isn’t—the NALS, along with other surveys such as the NAEP and dozens of other research papers, are the basis of our article), their understanding of the NALS is incorrect in a number of key areas. L&O claim, for example, that the NALS did not provide information on “how the (test) items were constructed or selected.” To the contrary, few other studies in literacy have provided as much information on this topic as the NALS did. Also, L&O incorrectly state that the NALS (unlike an Australia survey that L&O cite) failed to collect information on literacy self-assessment and did not utilize items that were taken from “everyday life.” Our article was not, of course, written so as to be a defense of the NALS study itself; we only cited NALS as one of a number of recent and important surveys that focus public and policy at-

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tention on adult literacy. That L&O’s comments would focus a major part of criticism on the NALS itself seems to have little to do with our own arguments and research findings that we deploy.

Unfortunately, L&O also misrepresent our article in a few key places. For example, we never suggested that the adult literacy sector needs “significantly increased funding” - we pointed out what to do without such funding—nor did we claim that “making receipt of welfare benefits [should be] contingent on attending literacy programs”. Nor does our “conception of literacy ... preclude” the domain of numeracy. Indeed, our work at NCAL has fostered significant research on adult numeracy (cf. Gal & Schuh, 1994), as described in our article. Further, L&O seem to confuse our mentioning of “functional context learning,” which we cite as stemming from others’ work in the military, as our own arguments and research findings. As stated in our article, adult literacy research remains on relatively thin empirical ice. Yet the research knowledge base is growing, and we need to ensure that the next generation of literacy professionals is able to use it as accurately and efficaciously as possible.

In sum, there is much that we can and do share with the pro-literacy philosophy, the intent and conceptual perspective of the L&O response, in spite of what we feel are various misrepresentations of our and others' findings. As stated in our article, adult literacy research remains on relatively thin empirical ice. Yet the research knowledge base is growing, and we need to ensure that the next generation of literacy professionals is able to use it as accurately and efficaciously as possible.

References


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